

GRAMMATICAL ERRORS ON INDONESIAN – ENGLISH TRANSLATION BY GOOGLE TRANSLATE

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ABSTRACT

Tujuan dari penelitian ini adalah untuk melihat kesalahan grammar yang dihasilkan oleh alat penerjemah Google Translate dalam menterjemahkan dari Bahasa Indonesia ke dalam Bahasa Inggris. Penelitian ini menggunakan pendekatan deskriptif kualitatif. Sampel diambil dari kalimat-kalimat Bahasa Indonesia dari 15 abstrak Jurnal Nasional Teknik Elektro dan Teknologi Informasi (JNTETI) yang diterbitkan oleh Jurusan Teknik Elektro, Fakultas Teknik, Universitas Gadjah Mada. Kesalahan grammar yang ditemukan dikelompokkan berdasarkan surface strategy taxonomy yang dibuat oleh Dulay et. al. (1982) yaitu Omission Error, Addition Error, Misformation Error, and Misordering Errors. Dari hasil analisa data ditemukan bahwa terdapat 153 kesalahan dari 51 kalimat yang diambil dari 15 abstrak yang terdiri dari 45.7% omission errors, 22.2%, misordering errors, 17.6% misformation errors and 14.3% addition errors. Dari hasil temuan tersebut disimpulkan bahwa terjemahan dari Bahasa Indonesia ke dalam Bahasa Inggris yang dihasilkan oleh alat penerjemah Google cenderung tidak tepat karena diterjemahkan kata demi kata sehingga tidak sesuai dengan kaidah tata bahasa Inggris dan mengabaikan makna. Oleh karena itu hasil terjemahan tersebut masih perlu diedit.

Kata kunci: Google translate, Grammar, Analisa Kesalahan

INTRODUCTION

Trans Tool or Machine Translation has become commonly used nowadays. This program provides a fast translation from one language into another language. There are many kinds of Trans Tools, but the most commonly used is "Google Translate", an online feature provided by Google Inc. to translate a section of text, document or webpage, into another language that appeared in 2007. Google Translator becomes one of the most used translators around the world because the machine translation is fast and easy to use and it claims to provide adequate general content translation for over 50 languages.

Though it is very convenient to use, Google Translator is not flawless. Newmark (1988) states that translation is rendering the meaning of a text into another language in the way that the author intended the text. Another expert, Catford (1965) explains translation as "the replacement of textual material in one language by equivalent textual material in another language". Bell (1991) adds that translation is not just replacing the text and transferring the meaning but also keeping the style of original text as far as possible in the translated text. Therefore, there are three important things in translation: replacing the text from one language to another, transferring the meaning which is intended by the author, and keeping the style of original text. As the Statistical Machine Translation, Google Translator tends to produce less accurate of meaning grammatical errors because it only translates based on the word for word.

Grammar which is defined by Brown (2001) as the system of rules governing the conventional arrangement and relationship of words in a sentence is very important since it takes role in the idea of delivery. Grammar is one of language component has an important role in delivering the message correctly. Mistakes/errors in the area of grammar can lead to the misunderstanding in both spoken and especially, written communication.

Google Translator tends to produce grammatical errors because it only translates based on word by word. The existence of differences between grammar rules in English and those in Bahasa Indonesia often makes grammatical errors when some sentences are translated word by word. For example, English has concept of tense for verbs, subject-verb agreement, singular-plural formation, but not in Bahasa Indonesian. The formation of noun phrase is also different between both languages.

Although Google Translator often produces inaccurate translation and errors in translating the language, but it still become the alternative way for many people who want to translate the language because the access to this service is more convenient and simple than to use the deservng of Human Translator that is considered will spend more time and cost (Lopez: 2008).

The purpose of the study then is to reveal the grammatical errors in translating Indonesian-English translation by Google translate. The source of data is Indonesian sentences taken from 15 abstracts of Jurnal Nasional Teknik Elektro dan Teknologi Informasi (JNTETI) published by Electrical Engineering, Faculty of Engineering, GadjahMada University. The grammatical errors found are classified based on the surface strategy taxonomi proposed by Dulay et al (1982), they are Omission Error, Addition Error, Misformation Error, and Misordering Error.

METHODOLOGY

This research uses a descriptive qualitative approach with the strategy of Case Study in which analyzing by describing the errors that Google Translator produces in translating Indonesian sentences into English. The source of data is Indonesian sentences taken from 15 abstracts of Jurnal Nasional Teknik Elektro dan Teknologi Informasi (JNTETI) published by Electrical Engineering, Faculty of Engineering, Gadjah Mada University. The abstracts were collected and then translated into English by using Google Translator. The errors found in the Google Translator were identified and then classified based on surface strategy taxonomy proposed by Dulay et al. (1982). Based on the surface strategy taxonomy, the errors are classified into four types:

1. Omission is characterized by the absence of an item that must appear in well-formed utterance. Any morphemes or words in a sentence are a potential candidate for omission. For example: He like hunting a deer in a jungle → He likes hunting a deer in a jungle.
2. Addition is characterized by the presence of the absence which must not appear in well-formed utterance. For example: He does not eats meal → He does not eat meal.
3. Misformation is due to the use of wrong form of the morpheme or structure. For example: that dogs → those dogs
4. Misordering is characterized by the incorrect placement of a morphemes or group of morphemes in an utterance. For example: I don't know what should I do → I don't know what I should do

The data analysis is done in some ordered steps: identification of errors, classification of errors, statement of frequency of errors and description of errors.

FINDING & DISCUSSION

Based on the data analysis, there are 153 errors found from 51 sentences taken from 15 abstracts of Jurnal Nasional Teknik Elektro dan Teknologi Informasi (JNTETI). The following table presents the frequency and percentage of each type of errors based on surface strategy taxonomy proposed by Dulay et al. (1982):

OMISSION (70 errors= 45.7%)		MISORDERING (34 errors=22.2%)		MISFORMATION (27errors=17.6%)		ADDITION (22 errors=14.3%)	
Preposition	28.6%	Phrase/ Noun Phrase	96.9%	Preposition	44.4%	Preposition	26%
Article	17.1 %	Other	3.1%	To be	14.8%	V-ing	26%
To be	14.2 %			Verb (ed)	14.8%	Article	17.3%
Relative pron.	7.1%			Definite article	14.8%	To be	8.6 %
Subject	5.7%			Verb	11%	Plural	8.6 %
V-ing	5.7%			Agreement		marker	
V-ed	4.2%			Other	1.4%	Other	13%
Other	15.7%						

From the table above it can be seen that omission error comes as the type of error with the highest frequency of occurrence which makes up 45.7 % of all errors. Misordering error is the type of error that comes in the second place of the most occurred error, it makes up 22.2%. Misformation

error comes as the third highest frequency that makes up 17.6 %. The lowest frequency is addition error, it amounts to 14.3 %.

Errors of omission make up 45.7%. They consist of omission of preposition (28.6 %), omission of definite and indefinite articles (17.1%), omission of “to be” (14.2%), omission of relative pronoun (7.1%), omission of subject (5.7%) and omission of others (15.7%). The following table shows the examples of omission errors type:

No.	Source of Language	Google Translate Output	Reconstructed Translation	Note
a	Penerapan SIMRS saat ini masih mengalami kendala dan hambatan ditingkat penerimaan pengguna	<u>Implementation SIMRS</u> is still experiencing problems and obstacles <u>level of user acceptance</u>	<u>Implementation of SIMRS</u> is still facing problems and obstacles <u>in the level of users' acceptance</u>	Omission : preposition (of, in), article: (the) Possessive marker
b	Jaringan area lokal nirkabel diperlukan GNSS-CORS Waduk Sermo untuk mem-baharui posisi referen-sinya dari CORS Fakultas Teknik Universitas Gadjah Mada.	Wireless local area networks <u>needed</u> CORS GNSS-Sermo Reservoir to renew the reference position of the CORS Faculty of Engineering, University of Gadjah Mada	Wireless local area networks <u>are needed by</u> CORS GNSS <u>of</u> Sermo Dam to renew its reference position from the CORS of Faculty of Engineering, University of Gadjah Mada	Omission : To be(are) Preposition (by)
c	Data diperoleh melalui kuesioner yang diisi oleh responden dan diukur dengan skala Likert.	The data <u>obtained</u> through questionnaires filled out by the respondent and is measured with a Likert scale.	The data <u>is obtained</u> through questionnaires filled out by the respondent and is measured with a Likert scale.	Omission: to be (passive)

It seems that Google translator uses word by word translation without considering the actual meaning of the sentences and grammatical rules such as:

- a) Implementation SIMRS is still experiencing problems and obstacles level of user acceptance
- b) Wireless local area networks needed CORS GNSS-Sermo Reservoir
- c) The data obtained through questionnaires filled out by the respondent and is measured with a Likert scale.

The three sentences above are ill-formed. The reconstructed versions would be:

- a) Implementation of SIMRS is still facing problems and obstacles in the level of users' acceptance
- b) Wireless local area networks are needed by CORS GNSS of Sermo Dam
- c) The data is obtained through questionnaires filled out by the respondent and is measured with a Likert scale.

There are differences between Bahasa Indonesia and English, therefore translating word by word from Bahasa Indonesia into English leads to the omission errors such as: “penerapan SIMRS” in example (a) is translated by Google “implementation SIMRS”. It should be “implementation of SIMRS”. In example (b) and (c) “to be” and preposition “by” should be added because those sentences are in the form of passive voices.

Misordering is the second highest frequency of errors found in Google Translator. It occurs 22.2 % of all errors. Most misordering errors are misordering of phrases. The following sentences are examples of misordering errors type:

No.	Source of Language	Google Translate Output	Reconstructed Translation	Note
d	Metode threshold mampu mendeteksi puncak interval R-R dengan baik untuk menghitung detak jantung.	Threshold method is able to detect <u>RR intervals with good peak</u> to calculate the heart rate	Threshold method is able to detect <u>the peak of RR intervals well</u> to calculate the heart rate	Misordering: noun phrase
e	Telah dilakukan penelitian perubahan NSA terhadap SNR yang bertujuan untuk mengetahui pengaruh perubahan NSA terhadap SNR.	<u>NSA has conducted research on the SNR changes aimed to determine the effect of changing the NSA against SNR.</u>	Research on the change of NSA into SNR has been conducted to determine the effect of the change of NSA into SNR.	Misordering: different sentence structure
f	Dalam paper ini digunakan penangkapan gerakan tangan menggunakan kamera web, untuk hubungan antara manusia dan komputer yang lebih alami dan intuitif	<u>In this paper</u> used the arrest of hand movements using a web camera, <u>for the relationship</u> between humans and computers more natural and intuitive	In this paper, arrest of hand movement using web camera is used to create the relationship between humans and computers more natural and intuitive	Misordering: different sentence structure

Google translator translates noun phrase (example d) “puncak interval RR dengan baik” into “RR intervals with good peak”. The correct should be “the peak of RR interval”. It seems that the failure of Google translate is due to the different style between Indonesia and English. English uses “Menerangkan-Diterangkan (M-D)” or “Modifier-Headword”, whereas Bahasa Indonesia uses “Diterangkan – Menerangkan (D-M) or ”Headword-Modifier”. It also occurs when this tool translates “*Penelitian yang dilakukan adalah melakukan studi kebutuhan Bandwidth system monitoring deformasi bendungan, merancang topologi jaringan nirkabel*” into “*Research is to study the bandwidth requirement dam deformation monitoring system, wireless network topology design,*” The well-form sentence should be :

- “*This research is to study the bandwidth requirement of Sermo dam’s deformation monitoring system, to design the wireless network topology,*”

Another example of misordering error is

- “*Evaluation of quality of service Billing Information System Hospital Dr. Murdjan*” .

Reconstructed sentence should be:

- “*Evaluation of the service quality of Billing Information System of Dr. Murjani Hospital*”.

Example (e) also shows misordering error produced by Google Translator based on word by word translation. The sentence is ungrammatical and unmeaningful in English. In example (f) the different structure between Bahasa Indonesia and English produces an ill form sentence when it is translated word by word by Google translator.

Misformation is the third highest frequency of all errors found in Google Translator Output. The misformation errors found are misformation of preposition (44.4%), misformation of “to be” (14.8%), misformation of verb (past tense) (14.8%). Misformation of preposition is characterized when Google translator uses inappropriate preposition, such as:

1. to renew the reference position of the CORS Faculty of Engineering,
2. Of the image, intensity and noise values sought to obtain SNR in each image
3. to determine the effect of changing the NSA against SNR

The sentence above is ill formed due to the misformation of preposition. The reconstructed versions would be:

1. to renew its reference position from the Faculty of Engineering’s CORS
2. From the image, intensity and noise values are sought to obtain SNR in each image.
3. to determine the effect of NSA change to SNR.

It seems that Google translator is not able to distinguish the use of preposition “of” and “from”, “on” and “to”. In Bahasa Indonesia, preposition “of and from” can be translated with the same meaning “dari”. When translating sentence (1) and (2) above Google translator translates based on word by word and ignores the context of sentences so it presents the inappropriate preposition in its output. The

same thing also occurs when the output in Google translator presents a wrong preposition “against” instead of “to” in example 3. The prepositions are not appropriate for the sentences. Misformation errors of simple past tense and past participle verbs also occur. They can be seen as follows:

No	Source of Language	Google Translate Output	Reconstructed Translation	Note
g	Ditinjau dari sifat transaksi informasi dan pelayanan publik, pengembangan E-government dilaksanakan melalui 4 tingkatan yaitu persiapan, pematangan, pemantauan, dan pemanfaatan.	<u>Judging</u> from the nature of the transaction information and public services, the development of e-government is carried out through four levels, namely preparation, maturation, stabilization, and utilization.	<u>Viewed</u> from the nature of the transaction information and public services, the development of E-government is carried out through four levels, namely preparation, maturation, stabilization, and utilization	Misformation: Past Participle judging→ judged Note: Judge → view
h	Hasil penelitian menunjukkan bahwa keluaran DAC memberikan kesalahan dengan rentang 6,72 milivolt hingga 14,58 milivolt, sedangkan keluaran ADC memberikan kesalahan dengan rentang 1 bit hingga 2 bit.	The results showed that the DAC output <u>gives</u> an error with 6.72 millivolt <u>range</u> up to 14.58 millivolts, while the output of the ADC <u>provide</u> the error range of 1 bit to 2-bit.	The results showed that the DAC output <u>gave</u> an error ranging from 6.72 millivolt to 14.58 millivolts, while the output of the ADC <u>gave</u> an error ranging from 1 bit to 2-bit.	Misformation: tense gives (V1)→ gave (V2) Note: provide→ gave

The misformation errors of verb in those sentences might be due to the difference between Bahasa Indonesia and English. There is no concept of tense in Bahasa Indonesia like in English. In Bahasa Indonesia there is only one form of verb, while English has more than one verb (simple present, simple past, present participle and past participle). This makes Google translate output presents inappropriate forms of verbs in its output . Another misformation error is misformation of “to be” as seen in the following sentence:

No.	Source of Language	Google Translate Output	Reconstructed Translation	Note
i	IMAG atau motor induksi yang digunakan sebagai generator asinkron telah banyak digunakan pada Pembangkit Listrik Tenaga Mikrohidro (PLTMh) yang kapasitasnya kecil,yaitu dibawah 100 Kw	IMAG or induction motor <u>is used</u> as an asynchronous generator has been widely used in micro hydro power plant (MHP) <u>is</u> a small capacity, ie below 100 Kw.	IMAG or induction motor (that/which is) <u>used</u> as an asynchronous generator has been widely used in micro hydro power plant (MHP) <u>with</u> a small capacity, ie below 100 Kw.	Misformation: to be → with Addition: To be → <u>is used</u>

The use of both “to be” in the sentence above is incorrect. The first to be “*is used*” should be omitted or added with “that/which” because the function of “is used” is not as a predicate, but as an adjective clause that modifies IMAG or induction motor. The second “to be” (*micro hydro power plant (MHP) is a small capacity, ie below 100 Kw*) can not be used, it should be changed with preposition of “with” as seen in the reconstructed translation. Misformation errors produced by Google translator might be due to the possibility of using both “yang” and “dengan” in Bahasa Indonesia, but it can not be used in English because they have different meaning. Therefore when Google translator translates the sentence based on word by word, it produced an ill-form sentence. It might have a different result if the input in Bahasa Indonesia uses “dengan” instead of “yang”.

Addition errors occur in the lowest frequency (14.2%). Errors of addition consists of addition of preposition (26 %), addition of -ing (26%) , addition of definite articles and indefinite articles (17.3%), addition of “to be” (8.6%), addition of plural markers (8.6%), and others. The examples of addition errors are like the following sentences:

No.	Source of Language	Google Translate Output	Reconstructed Translation	Note
j	Bagian kemahasiswaan sering mengalami kesulitan dalam menentukan mahasiswa berprestasi yang akan dikirim ke event karena banyaknya mahasiswa berprestasi pada institusi	Student affairs often have difficulty in determining student achievement that will be sent to the event because of <u>the many outstanding students</u> at the institution	Student affairs often finds difficulties in determining students that will be sent to the events because of <u>many outstanding students</u> at the institution.	Addition: article (the)
k	Dari sisi permintaan, skenario yang disusun terdiri dari skenario referensi dan skenario konservasi.	On the demand side, the scenario drawn up <u>consisting</u> of a reference scenario and conservation scenarios	From the demand side, the scenarios <u>consist</u> of reference and conservation scenarios	Addition: V-ing, plural -s
l	E-government merupakan upaya untuk mengembangkan penyelenggaraan	E-government is an effort <u>to developed</u> the implementation of	E-government is an effort <u>to develop</u> the implementation of ...	Addition: V-ed

The use of “the many outstanding students” in example (k) is incorrect; article “the” in the sentence should be omitted, It should be “many outstanding students”. In example (j) instead of the error of omission found, there is an error of addition, that is the error of addition “to be”, “*IMAG or induction motor is used as an asynchronous generator has been widely used*” . To be “is” should be omitted as seen the reconstructed version in example (j). There is also a different concept of verb between Bahasa Indonesia and English that leads to some errors. In Bahasa Indonesia there is only one type of verb, while English has various types of verb. Google translator presents the inappropriate verb “consisting” instead of “consist” in example (l) and “to developed” instead of “to develop” in example (m). The differences between Bahasa Indonesia and English might impact some addition errors when it is translated by Google translator based on word by word.

CONCLUSION

Based on data analysis there are 153 errors found from 51 sentences taken from 15 abstracts of Jurnal Nasional Teknik Elektro dan Teknologi Informasi (JNTETI) published by Electrical Engineering, Faculty of Engineering, Gadjah Mada University. Errors of omission come as the highest frequency, followed by misordering errors, misinformation errors and addition errors. It seems that Google Translator tends to produce ill-form sentences because this tool only translates based on word by word without considering the actual meaning of the text and grammatical rules in English. The effect of translating based on word by word. Google translator often applies Bahasa Indonesia structures that are different from English structures that lead to some grammatical errors. However, instead of its accurateness, translation produced by Google translator is very helpful as pre-translation. Therefore users who want use this tool to translate texts should edit the results of the translation as it is stated by Hutchins (1995) that the result of translation from this tool is called pre-translation, therefore it needs to be edited. it still needs to be edited. For Google translate users, it is suggested to input well form sentences in Bahasa Indonesia to minimize the errors.

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