Volume 13 No. 2 p 516-526
Journal of English Language Teaching
EISSN 2302-3198
Published by Jurusan Bahasa dan Sastra Inggris
FBS Universitas Negeri Padang
available at http://ejournal.unp.ac.id/index.php/jelt

Comparative Study of Students' Translation Quality Using Printed Dictionary and Post-Editing on Machine Translation Tools from English-Indonesian

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Article History
Published: 2024-05-21

Keywords:
Translation Quality, Printed Dictionary, Machine Translation Tools, Post-Editing

Abstract

This research aims to compare the translation quality produced by students using printed dictionary and post-editing on machine translation tools. Participants in this research were students from K7-22 class who have taken Introduction to Translation Class from English Education at Universitas Negeri Padang, totaling 27 students. This research was conducted by using descriptive quantitative research and using translation test as the instrument. Researcher gave two different texts with the same level. When using a printed dictionary, students showed good level of translation quality, with a score of 2.20. Also, when using post-editing on machine translation tools it produces a higher score of 2.65, which shows that the level of translation quality is very good. It can be concluded that comparing the quality of student translations from the two versions that post-editing on machine translation tools provides better translation quality than printed dictionary. However, in each element, printed dictionary and post-editing on machine translation tools show that the accuracy is same. These two translation versions only help students in terms of acceptability and readability. For accuracy, students need to be improved a lot when translating text because there are still shortcomings when using printed dictionary and post-editing on machine translation tools.

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How to Cite: Wibowo, M. A., & Oktavia, W. (2024). Comparative Study of Students' Translation Quality Using Printed Dictionary and Post-Editing on Machine Translation Tools from English-Indonesian. Journal of English Language Teaching, 13 (2): pp. 516-526, DOI: 10.24036/jelt.v13i2.128627

INTRODUCTION

Translation is an English language skill that is very important to learn in language learning and one of the competencies given to the English department students at various universities in the world. According to Foster (1958), translation is also an act through which the content of a text or material is transferred from the source language into the target language. This skill helps students to be more confident in

paying attention to the meaning of language in order to produce good quality translations.

Translation quality is the extent to which meets specified standards or requirements. Nababan (2012) states that evaluation quality focuses on three main aspects that are accuracy, acceptability, and readability. All aspects of translation quality have a strong impact on the translation quality. Research by Dzakiyyah (2017) revealed that the comparison between human translation without using any tools and google translate in terms of accuracy, acceptability, and readability in students. This research applied a comparative study that compared the quality of human translation and google translate aspect proposed by Nababan.

Students from English education certainly cannot be separated form English lecture material. To understand the material, students usually try to translate the material into English or Indonesian using printed dictionary. According to Ramadhani (2021), dictionary is one of the learning media that can help someone to implement the learning process for language learners. Printed dictionary has always been a valuable source of information for English students and a tool for helping students express their ideas and broadening their vocabulary in a foreign language. Huang (2003) state that printed dictionary has been considered by many EFL students as a very helpful tool in the process of learning English. The use of printed dictionary is very rarely used and carried by English students because there are already tools that make it very easy for students. In addition, to find out someone's ability as a translator, they have to take a test to get a certificate and they can only bring materials in the form of a printed dictionary.

Almost every student is familiar with using machine translation tools to help them study or task on lecture assignments like Google Translate. Research by Halimah (2018) revealed that the research compared from the aspect of the phrase and the meaning of the whole sentence in the results of the two translations. The result for the research shows that the similarity between human translation and machine translation in procedural text translation is relatively low, 29%. So, machine translation still requires human labor to produce is better translation. Even though machine translation tools show the translation results with the best accuracy, it still has many translation errors for words or sentences that do not always match with the original text. According to Alam (2020), translators must pay attention to linguistic studies of word deficiencies, reductions in meaning and inaccuracies in translation results that provided by machine translation. Because of that, machine translation tools results still need to be edited with humans by doing post-editing.

Post-editing is a process that humans do by tidying up, revising and making corrections to the results that have been translated from machine translation to achieve an acceptable final result. The role of post-editing is really needed by students in order to be able to improve the translation results provided by machine translation tools. Anggrina, Pramudita, and Suparmi (2017) carried on a study about analyzing EFL students' post-editing on google translate results from English to Indonesian. The result from the research, to achieve high-quality output, EFL learners should use post-editing in revising translations output that has been produced by machine translation system.

Based on the reason and explanation above, there are some gaps that differentiate the researcher' research and previous research. Most of the previous researchers' explanations only focused on the quality of the translations obtained from the results of their research. There was also no explanation regarding the use of printed dictionaries and post-editing of all machine translation tools. In this research, researcher will also look at the results of the quality of the translations provided by students, but the researcher focuses on using printed dictionary and machine translation tools where the results have been post-edited. Not only its use, but researcher will also look for other factors that influence the quality of their students' translations. In doing this, the researcher decided to conduct comparative research entitled "Comparative Study of Translation Quality of Printed Dictionary and Post-Editing on Machine Translate tools from English-Indonesian Translation".

METHOD

The research design of this study is descriptive quantitative research. Sudijono (1987) mention that the quantitative descriptive method is a method of describing the state of a phenomenon which is measured with measuring instruments and then processed according to its function. The researcher used descriptive methods using two different texts as instruments.

The population of this research are students who have taken Introduction to Translation class from the English education at Universitas Negeri Padang. They are in academic year 2022. There are seven classes for the Introduction to Translation Class which are in educational program such as K1-22, K2-22, K3-22, K4-22, K5-22, K6-22, and K7-22. Cluster random sampling was used in this research to choose the sample. Researcher used the "Spin the Wheel" application to choose a class to be the sample of this research. K7-22 class was picked as the sample with a total of 27 students.

The researcher used translation tests to know the quality of students' translation by using two different version that are printed dictionary and post-editing on machine translation tools. Researcher gives two different texts with the same level. Students translated the text from English to Indonesian and the students are given around 40 minutes to finished each test.

According to Ghozali (2009), the validity test is used to measure whether an instrument is valid or not. An instrument is said to be valid if it has value and is able to express something it measures. The researcher consulted about research instrument with one of the translation lecturers in English Language and Literature Department, Languages and Arts Faculty, Universitas Negeri Padang to be a validator. The instrument was validated by Dr. Havid Ardi, S.Pd, M.Hum.

In order to get reliable data, the researcher asked for help from two translation lecturers in English Language and Literature Department, Languages and Arts Faculty, Universitas Negeri Padang to be raters. The first rater was Lafziatul Hilmi, S.Pd, M.Pd, the second rater was Nur Rosita S.Pd, M.A., and the third rater was the researcher himself.

The techniques of data collection of this research are used translation test. Researcher gave two different texts with the same level in order to know the quality of the translation. In the first text, students used printed dictionary and will be given 40

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minutes to translate. Before that, students were told to bring a printed dictionary as a tool to help them. In the second text, students will translate the text with the help of all the machine translation tools they want to use to translate it. The students also complete the text around 40 minutes. After that, the researcher will collect the test.

The researcher analyzed the data by using quantitative data for analyzing the translation tests results. As using this technique, quantitative analysis with further discussion and explanatory analysis, then conclusions are drawn from the research results. This is used to find, recognize and see the quality of students' translations in text translations from English-Indonesian translation. At the end, the results of the analysis found will be compare the data and conclude by the researcher. To analyze the average of total score of students, the formula as follows:

$$\text{Average} = \frac{\text{Total score}}{\text{Total number of students}}$$

The category of translation quality by Nababan et al. (2012) are composed as follows:

1) Accuracy
   - Inaccurate = (with Range 1,1 – 1,45)
   - Less Accurate = (with Range 1,5 – 2,45)
   - Accurate = (with Range 2,5 – 3,0)
2) Acceptability
   - Not Acceptable = (with Range 1,1 – 1,45)
   - Less Acceptable = (with Range 1,5 – 2,45)
   - Acceptable = (with Range 2,5 – 3,0)
3) Readability
   - Not Readable = (with Range 1,1 – 1,45)
   - Less Readable = (with Range 1,5 – 2,45)
   - Readable = (with Range 2,5 – 3,0)

The researcher also uses the theory put forward by Machali (2009) as a basis for analyzing the overall quality of translation. Translation assessment rubric according to Machali are:

Table 1. Rubric Quality of Translation

Category	Scale	Criteria
Almost Excellent	2.8 – 3.0	The translation is almost equal to original text. There are no mistake in grammar, spelling and

		using vocabulary.
Very Good	2.5 – 2.79	There are no mistake in using vocabulary, there are any grammar and spelling mistake but not many.
Good	2.0 – 2.49	There are grammar and idiom mistakes but not more than 15% from all texts. There are any mistakes in spelling.
Fair	1.5 – 1.99	Feel like a translation; there are grammar and idiom mistakes but not more than 25% from all texts. There are any mistakes in uncommon vocabulary.
Bad	1.0 – 1.49	It realy feels like a translation; there are grammar and idiom mistakes more than 25% from all texts.

Source: Machali (2009)

RESULT AND DISCUSSION

Research Finding

1. **Translation Quality Using Printed Dictionary**

The researcher found that all students in K7-22 class who have done the translation test using printed dictionary have different scores. Some students have a very good and good score, then few students have a bad score. Average score of students in K7-22 class is 2.21 which means that student's quality in translating text using printed dictionary from English to Indonesia is good. From the data, for students got Almost Excellent scores are 2, Very Good scores are 12 students, Good scores are 9 students, then for the Fair scores is 1 students, and the Bad or the lowest scores are 3 students.

There were some examples of students' translation quality scores in translating a text using printed dictionary:

- **Student 6**

  The quality of translation from student 6 is Very Good, because in the results of the translation test, student 6 did not make any mistakes in using vocabulary, although there were a few errors in grammar, but not many. In the accuracy, student 6 got 2 points of this aspect which is categorized as less accurate. In the paragraph 1, there is a translation that does not match with the source text. In the sentence "*To say that education is your doorway to success would be an understatement*", but student 6 translated it like this "*Pendidikan adalah pintu menuju kesuksesan menjadi sebuah pernyataan yang remeh*". In that sentence, it should be translated as "*Untuk*

mengatakan bahwa pendidikan adalah pintu menuju kesuksesanmu akan menjadi pernyataan yang terlalu dini". In the acceptability, student 6 got 3 points of this aspect which is categorized as acceptable where this translation is in accordance with the appropriate phrases, clauses, and sentences according to Indonesia language rules. In the readability, student 6 got 3 points which is categorized as readable where the words, phrases, clauses, sentences, or translated text easily to understand by the reader.

- **Student 7**

  Overall, the quality of translation from student 7 is Very Good, because in the results of the translation test, student 7 did not make any mistakes in using vocabulary, although there were a few errors in grammar, but not many. In the accuracy, student 7 got 2 points of this aspect which is categorized as less accurate. The translated meaning in paragraph 2 in inaccurate because there is an error in meaning, the sentence "*An educated person has a lot of job……*", but student 7 translated it like this "*Sebuah pendidikan seseorang mempunya banyak peluang pekerjaan……*". In that sentence, it should be translated as "*Orang yang berpendidikan mempunyai banyak peluang kerja……*". In the acceptability, student 7 got 3 points of this aspect which is categorized as acceptable where this translation is in accordance whit the appropriate phrases, clauses, and sentences according to Indonesia language rules. In the readability, student 7 got 3 points which is categorized as readable where the text easily to read and understand by the reader.

- **Student 18**

  The quality of translation from student 18 is Very Good, because in the results of the translation test, student 18 did not make any mistakes in using vocabulary, although there were a few errors in grammar, but not many. In the accuracy, student 18 got 2 points of this aspect which is categorized as less accurate. In the paragraph 1, there is an error meaning. In the sentence "*……would be an understatement*", but student 18 translated it like this "*…… akan menjadi yang tidak terbantahkan*". In that sentence, it should be translated as "*……akan menjadi pernyataan yang terlalu dini*". In the acceptability, student 18 got 3 points of this aspect which is categorized as acceptable. In the readability, student 18 got 3 points which is categorized as readable where the words, phrases, clauses, and sentences is easy to understand by the reader.

2. Translation Quality Using Post-Editing on Machine Translation Tools

The researcher found that all students in K7-22 class who have done the translation test using post-editing on machine translation tools have different scores. Average score of students in K7-22 class is 2.65 which means that student's quality in translating text using using post-editing on machine translation tools from English to

Indonesia is Very Good. From the data, for students got Almost Excellent scores are 8, and Very Good scores are 19 students.

There were some examples of students' translation quality scores in translating a text using post-editing on machine translation tools:

- **Student 2**

  The quality of translation from student 2 is Very Good, because student 2 did not make any mistakes in using vocabulary, although there were a few errors in grammar, but not many of them found errors. Also, student 27 translated the text using machine translation tools, namely Google Translate. In the accuracy, student 2 got 2 points of this aspect which is categorized as less accurate. The translated meaning is inaccurate translation errors and missing words. In the acceptability, student 2 got 3 points of this aspect which is categorized as acceptable. In the readability, student 2 got 3 points which is categorized as readable where the translated text easily to understand by the reader. In this translation, student 2 used a post-editing so that the edited sentences are easy to read and understand. For example, in paragraph 1 where student 2 wrote "*Di asrama, anak pemalu dapat memanfaatkan interaksi melalui kegiatan bersama*", and in the translation results provided by Google Translate "*Di pesantren, anak pemalu dapat memanfaatkan interaksi melalui kegiatan komunal*". Also, in paragraph 3 where student 2 wrote "*.....ia adalah anak yang menjadi tanggungan pembelajar*", and in the translation provided by Google Translate "*.....ia adalah pembelajar yang mandiri*".

- **Student 9**

  The quality of translation from student 9 is Very Good, because student 9 did not make any mistakes in using vocabulary, although there were a few errors in grammar, but not many. Also, student 9 translated the text using machine translation tools, namely Google Translate. In the accuracy, student 9 got 2 points of this aspect which is categorized as less accurate. The translated meaning is inaccurate translation errors. In the acceptability, student 9 got 3 points of this aspect which is categorized as acceptable. In the readability, student 9 got 3 points which is categorized as readable where the words, phrases, clauses, and sentences is easy to understand by the reader. In this translation, student 9 used a post-editing so that the edited sentences are easy to read and understand. For example, in paragraph 1 where student 9 wrote "*Sejak usia dini, berinteraksi dan berkomunikasi dengan orang lain sangat penting untuk kehidupan pribadi seorang anak, terkhusus sangat membantu masa depannya*", and in the translation results provided by Google Translate "*Pada usia dini, berinteraksi dan berkomunikasi dengan orang lain sangatlah penting bagi kehidupan pribadi seorang anak dan terutama dapat bermanfaat bagi masa depannya*". Also, in paragraph 2 where student 9 wrote "*……dapat membantu siswa membiasakan diri terhadap kehidupan yang tertata*", and in the translation provided by Google Translate "*……dapat membantu*

 EISSN: 2302-3198

santri untuk terbiasa dengan cara hidup yang tertata dengan baik". Then, in paragraph 4 where student 9 wrote "*Kesimpulannya, meskipun sekolah asrama berkemungkinan untuk menyediakan pendidikan yang baik untuk banyak anak, sekolah asrama tidak disarankan untuk anak yang ketergantungan dengan keluarganya*", and in the translation provided by Google Translate "*Kesimpulannya, meskipun sekolah pesantren dapat memberikan pendidikan yang baik kepada banyak anak, namun tidak disarankan bagi mereka yang memiliki ikatan kuat dengan keluarganya*".

3. The Comparison of Student's Translation Quality Between Printed Dictionary and Post-Editing on Machine Translation Tools

The respective results of the quality of student translations by using printed dictionary and post-editing on machine translation tools can be seen in the explanation above. To compare printed dictionary and post-editing on machine translation, the researcher compared the overall quality first. The overall quality score for the printed dictionary gets 2.21, which is a score at a good quality level, and post-editing on machine translation tools gets 2.65, which is a score at a very good quality level. In terms of overall quality, using machine translation tools is better than using printed dictionary. So, the most prominent translation aspect of the results given by students in translating texts using printed dictionary and post-editing on machine translation tools from English-Indonesia is readability. It can be seen that from these three aspects of translation, accuracy aspect was something that students needs to be improved a lot when translating text because there are still shortcomings when using printed dictionary and post-editing on machine translation tools.

Discussion

Translation is a skill that is really needed for students majoring in English education to study foreign languages. Quality translation must convey the message from the source language as possible. According to Catford (1965), translation is the process of replacing textual material in the source language with equivalent textual material in another language. Additionally, some of the previous researchers only focused on the quality of the translations obtained from the results of their research. However, this research also looks at the results of the quality of the translations provided by students, the researcher focused on using printed dictionary and machine translation tools where the results have been post-edited.

After collecting the data from students in K7-22 class who are taking Introduction to Translation class at Universitas Negeri Padang, the researcher discovered that the results of the translation quality produced by the K7-22 class could be said that using machine translation tools is better than using printed dictionary. However, of the three aspects of translation quality, the one that needs to be improved a lot is the accuracy aspect because the score for printed dictionary got 1.93 and machine translation tools got 2.30, where the two values were categorized as less accurate.

This research finding had a different result with the previous research conducted by Dzakiyyah (2017). The researcher, Dzakiyyah, conducted her research with 50

research subject students in the fifth semester. Her research is compared the quality of human translation and google translate aspect proposed by Nababan. The result from the research where the average score of human translation is 2.16 which is categorized as less accurate, less acceptable and less readable. Then, the average score of google translation is 2.67 which is categorized as accurate, acceptable and readable. However, in this current research, the researcher conducted with 27 students in K7-22 class. The researcher used aspects of translation proposed by Nababan (2012), but the researcher also added aspects from the theory put forward by Machali (2009) as a basis for analyzing the overall quality of translation. The overall quality score for the printed dictionary got 2.21, which is a score at a Good quality level, and post-editing on machine translation tools got 2.65, which is a score at a Very Good quality level.

Another research finding had a different result with the previous research conducted by Akhsanah (2019). The researcher, Akhsanah, wants to investigate the student's translation quality using electronic dictionary in translating exposition text from English to Indonesian. The result from her research shows that the most common error in acceptability parameter and the students' quality is mid good quality. However, in this current research, the researcher using printed dictionary and also using exposition text from English to Indonesian. The researcher results show that using printed dictionary was 1.93, according to Nababan et al. (2012), where these values were categorized as less accurate. In terms of quality, according to Machali (2009), these values gave that printed dictionary is Fair or Weak quality level.

Furthermore, the findings of this research are in line with the research conducted by Anggrina et al. (2017). They focused on analyzing students' post-editing but they using google translate results from English to Indonesian. In this current research, the researcher also focused on analyzing students' translation results, whether they did post-editing or just copied all the results from the machine translation tools. The result from the research, to achieve high quality where the students should use post-editing in revising translations result that has been produced by machine translation system.

CONCLUSION

Based on the findings and discussion that has been examined and described, researchers conducted translation tests on students in K7-22 class to determine the quality of their translations using printed dictionary and post-editing on machine translation tools. These findings reveal that, using machine translation tools is better translation quality than using printed dictionary. However, if we look at each element, printed dictionary and post-editing on machine translation tools show that the accuracy is same. Post-editing using machine translation tools only helps students in terms of acceptability and readability. Not only that, there are still some students in K7-22 class who still don't use post-editing and just copy and paste the results from the machine translation tools. For accuracy, students' abilities need to be improved a lot when translating text because there are still lacking when using printed dictionary and post-editing on machine translation tools. Even though the level of translation accuracy is same, the two versions show similar levels of readability results. Although both methods have their respective strengths and weaknesses, these findings show that nowadays students are more comfortable translating to another language using machine translation tools rather than using printed dictionary.

 EISSN: 2302-3198

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