



AN ANALYSIS OF ENGLISH DEPARTMENT STUDENTS' ACCURACY IN TRANSLATING NATURAL SCIENCE TEXT FROM ENGLISH INTO *BAHASA INDONESIA*

Yuri Azirovi¹, An. Fauzia Rozani Syafe'i², Fitrawati³

English Department

Faculty of Languages and Arts

State University of Padang

email: yuriazirovi1994@gmail.com

Abstract

This was a descriptive quantitative research which aimed to identify the English Department 2013 students' accuracy in translating natural science text from English into *bahasa Indonesia* and to describe their accuracy problems in translation. From 94 students, 38 among them were chosen randomly as the sample by using quota random sampling. The data in this research were the students' translations which would be assessed by three inter raters for each text. The researcher used accuracy rating instrument proposed by Nababan in order to analyze the accuracy of students' translations. The findings showed that there were 30 students who had less accurate translation in translating biology text; 12 students who had less accurate translation in translating physics text; and 31 students who had less accurate translation in translating chemistry text. The rests of the students were categorized into inaccurate translation. Thus, there was no student who had an accurate translation. The findings also showed that the students faced accuracy problems including lexical meaning, grammatical meaning, contextual meaning, and textual meaning. It could be concluded that the students' accuracy in translating natural science texts were mostly in less accurate category. As a result, the students needed to have more exercises in order to have an accurate translation.

Key words: Translation, Accuracy, Natural Science Texts

A. INTRODUCTION

Translation is the process of transmitting meaning from source language into target language. Since every language has different structure, grammatical, lexical, and situation, translation can be the solution to get information from one language. However, translation is not an easy thing to do since there are many aspects that needed to be considered by the translators. Nababan (2012: 44) notes

¹ English ELTSP of English Department of FBS Universitas Negeri Padang graduated on September 2016

² Lecturer of English Department of FBS Universitas Negeri Padang

³ Lecturer of English Department of FBS Universitas Negeri Padang



that there are three characteristics of a good translation which are accuracy, acceptability, and readability. Accuracy leads into a question whether a transfer message from SL is as well as in the TL. In addition, acceptability focuses on whether a translator uses the grammatical norms in TL or not. Moreover, readability means a translation should consider the TL readers' understanding in reading a text so that a translation should be easily understood by the readers.

In translation, there are three types of texts that can affect the work of translators including expressive text, vocative text, and informative text. Among the three types of those texts, informative text, especially scientific text, is the hardest one to be translated. The first reason is there are many registers and terms in certain field that have certain meanings where the translator needs to find out the real meaning in order to get accurate translation. The second reason is the language used in informative text is plain and the fact in the topic will be the core of translation. It means the translator should really transmit the original message to the TL readers completely and carefully without adding or reducing the information.

The fact that informative text is the hardest one to be translated makes the writer interested to do a research about English Department students' ability in translating informative text. According to curriculum based on KKNI (*Kerangka Kualifikasi Nasional Indonesia*) 2013, the English Department curriculum, the translation class is offered to the 4th and 5th semester students. This means by taking translation class in the 4th and 5th semester, the third year of English Department students are hoped to be able in translating texts from English to *bahasa Indonesia* and vice versa.

Actually, it does not matter if the translation class is offered to the third year of English Department students as long as they have taken some essential classes such as grammar classes, linguistics classes, reading classes and vocabulary classes. It is because these classes are the basic things needed in translation class that affect the result of translation. In fact, they do not finish those classes yet and take translation class in the same time. Thus, it can be assumed that they will be difficult to produce a good translation if they do not have good basic knowledge.

This assumption seems correct. It can be seen from the score of English Department students that is low in translation class. One of the exercises in translation class is translating several informative texts from several fields such as biology, physics, chemistry, technic, politic, and many others from English into *bahasa Indonesia*. The result shows that the students' translation is not accurate especially in translating specific terms. Averagely, most of their scores are 65-70. They tend to mistranslate some certain specific terms in specific fields.

In addition, it cannot be neglected that since English Department students have been familiar with English texts, many of students from other fields who cannot deal with English will ask some help from English Department students to translate certain texts to fulfill their needs. Again, a problem arises when the English Department students should deal with certain unknown registers in certain fields that they do not familiar with. Since certain registers in one field have

certain meanings, the students need to find out textual meaning in those registers. However, the students did not do it which can lead into inaccurate translation.

Besides, most of the students' translations are word-by-word translation. They only see translation as merely a text where there is no process or activity included. For example, in one of exercises in translation class, the students were asked to translate a scientific discourse from English into *bahasa Indonesia*. Many of them translated "Alkalis form solutions which feel soapy and which will dissolve oily and greasy substances" into "*Alkalis membentuk solusi yang merasa bersabun dan yang akan melarutkan substansi berminyak dan berminyak.*" In fact, the translation should be "*Alkalis membentuk larutan yang bersabun dimana larutan tersebut akan melarutkan zat-zat yang berminyak.*" It can be seen that they do not try to understand the content of the source language text first before transmitting the message into equivalent meaning in target language text. Also, they only translated it word-by-word. There were some researchers which had been conducted related to the translation in English language teaching. One of them was the research which was conducted by Rehem, Jufri, and Ardi (2013) which was focused on the correlation between reading comprehension and translation ability.

Because of some problems mentioned previously including their inaccuracy in translating informative text; their difficulties in dealing with word choices, grammatical structure, and certain registers in certain fields; and their problems in dealing with the process of translation, the writer is interested and curious to investigate the English Department students' accuracy in translating scientific text from English into *bahasa Indonesia* under the title "An Analysis of English Department Student's Accuracy in Translating Natural Science Texts from English into *bahasa Indonesia*."

B. RESEARCH METHOD

This research was a descriptive quantitative method since the aim of this research was to analyze the students' translation accuracy and describe their accuracy problems in translation process. The population in this research was the English Department students at *Universitas Negeri Padang* in academic year 2013. The samples were taken by using quota random sampling for about 40% from the population or 38 students. The instrument in this research was a translation test which was natural science texts including biology, physics, and chemistry. The texts used were taken from natural science textbooks used by natural science students in *Universitas Negeri Padang*. This instrument has been validated by Diah Putri Anggun, S.Pd. as the validator and the key answer of the translation texts have been corrected by Dra. An. Fauzia R. Syafe'i, M.A.

Biology and chemistry texts consisted of 18 sentences where physics text consisted of 8 sentences. After translating the texts, the research collected them to be analyzed. Besides the researcher, there were two other inter-raters for each text to give the score toward the students' translation.

C. DISCUSSION

Since the first research question in this research was to analyze the students' translation accuracy, the researcher used accuracy rating instrument proposed by Nababan. The following tables were the percentage of the students' accuracy.

Table 11: Percentage of Students' Accuracy for Biology Text

Category	Frequency	Percentage
Accurate	0	0%
Less accurate	30	78.95%
Inaccurate	8	21.05%
Total	38	100%

Table 13: Percentage of Students' Accuracy for Physics Text

Category	Frequency	Percentage
Accurate	0	0%
Less accurate	12	31.58%
Inaccurate	26	68.42%
Total	38	100%

Table 15: Percentage of Students' Accuracy for Chemistry Text

Category	Frequency	Percentage
Accurate	0	0%
Less accurate	31	81.58%
Inaccurate	7	18.42%
Total	38	100%

From 38 students, there was no student who was in category of accurate translation. In biology text, there were 30 students who were categorized into less accurate or for about 78.95%; meanwhile, 8 students were in inaccurate category or for about 21.05%. In line with it, 31 students were categorized into less accurate in translating chemistry text or about 81.58%; while 7 students were in category of inaccurate translation. In contrast, in translating physics text there were only 12 students who were classified as less accurate or for about 31.58%; while 26 students were in inaccurate category or for about 68.42%.

The third year of English Department students who have taken translation 1 and translation 2 in their second year were hoped to be able to translate many types of texts including expressive text, informative text, and vocative text. However, these facts showed that the students were not ready to take translation class in their second year of college. It was assumed that before taking translation

class, the students needed to pass several important courses such as grammar course, vocabulary course, reading course, and linguistic course. In fact, the students did not finish their grammar, vocabulary, reading, and linguistics courses yet in their second year. As a result, there was no student who got accurate translation, but instead the students' translations were mostly in less accurate category.

In addition, it was assumed that the students did not master the process of translation or how to produce a good translation product. As discussed earlier that translation was transferring a text in source language into equivalent text in target language. It meant the process of translation was not simply translating each word into target language, but it was looking for equivalent message in source language to be transferred into target language. It needed some phases before creating a product of translation. However, the third year of English Department students did not do those steps. Since the researcher allowed the students to use *Google translation*, they only took the translation from it without doing the process of translation.

First, the students did not try to understand and analyze the message in source language such as the type of the text, topic of the text, the grammar used and certain registers in the text. It could be seen from the students' translation which faced textual and grammatical meaning problems. For instance, in natural science field, there are several certain registers that have certain meanings such as *scale, nervous, germ cell, host, spring, plane, force, and mass*. This meant the students needed to analyze the topic of the text so that they could understand the certain registers that were used.

Second, the students did not do internal process where they needed to look for equivalent meaning in target language. It could be seen from their translation which faced lexical and contextual meaning problems. For example, student 17/ sentence 2 translated "*bile passageways*" into "*lorong empedu*." It showed that the student did not do internal process where they were supposed to think in mind the acceptable equivalent meaning in target language.

Third, the students did not restructure the message in complete sentence in target language. It could be seen from the students' translation which faced grammatical meaning problem. The students only copied the translation from *Google translation* without considering the word order, part of speech, conjunction, and others. As a result, their translation was inaccurate and created ambiguity.

Moreover, it was also assumed that the students were lack of exercises in translating informative texts such as natural science texts. Based on the researcher's observation, the translation's exercises given by the lecturers were mostly in expressive text/ narrative text, and vocative text such as advertisement and notices. As a result, the students were not familiar with informative texts especially texts from other fields such as natural science, law, religion, and technic. As a matter of fact, the purpose of giving translation course for English Department students was to prepare them to be translators who were able to translate any kind of text accurately.

Also, since the second research question was to describe the accuracy problems faced by the students in translation, the researcher analyzed each of students' translations which were in category less accurate and inaccurate. The following table was the number of students' accuracy problem.

Table 16: Number of the Students' Accuracy Problems

	Lexical meaning problem	Grammatical meaning problem	Contextual meaning problem	Textual meaning problem	Socio-cultural meaning problem
Biology	412	36	72	265	-
Physics	227	144	147	13	-
Chemistry	315	243	13	20	-
Total	954	423	232	298	-
Number of Sentences	44	44	44	44	-
Mean	21.68	9.61	5.27	6.77	-
Percentage	57.05%	25.28%	13.86%	17.81%	-

Normally, there were five accuracy problems including lexical meaning, grammatical meaning, contextual meaning, textual meaning, and socio-cultural meaning. In lexical meaning problems, it could be seen that the students were difficult in getting similar meaning which relevance or equivalent with the content in source language. It was stated earlier that translation was not only replacing the words in one language into another language. It was because one word in one language could have several meanings in other languages. The translators were suggested to use bilingual dictionary in order to find out the meaning of one word based on the context in source language. For example, student 13/ sentence 4 used the word "*tinggal*" as the translation of "*live*" (look at page 84). It was correct that "*live*" could be translated as "*tinggal*" in bahasa Indonesia, but the context in source language was "*hidup*" just like in "Eggs, however, can live for some weeks in water". As a result, the lexical choices made by the students created unclearness meaning where could be misleading.

In grammatical meaning problems, the students faced many kinds of problems including the word order, the use of preposition, the use of conjunction, the use of active/ passive voice, and the use of part of speech. Actually, those grammars had been learned by the students in their second year, but they still got difficulties related to them. As discussed earlier that it was assumed that the students did not do translation process where they needed to restructure the equivalent meaning into a complete sentence. The students only took the result of translation from *Google translation* without considering the grammar used. For example, student 37/ sentence 9 translated "*if new experimental data...*" into "*Jika pengalaman baru data...*". Here, the student did not pay attention to the word order in *bahasa Indonesia*, but instead merely took the meaning word by word from *Google translation*. This phenomenon did not show that the students have mastered translation theory in translation course and it was an outrageous fact that the third year of English Department students still had problems in those grammars.

In contextual meaning problem, many students were still hard to catch the context of the text in source language. It was assumed that they did not pay attention to the context and translated it word by word which would cause inaccuracy. If the students did the second phase of translation process which was looking for equivalent meaning in their internal process, the students would not face contextual meaning problems since they would analyzing the appropriate meaning for those words based on the context. For example, student 18/ sentence 2 translated “*The normal habitat of adults...*” into “*Habitat normal orang dewasa...*”(look at page 99). It was correct that adults could be said as *orang yang sudah dewasa* in *bahasa Indonesia*. However, the context in source language was not *orang dewasa*, but instead *cacing pipih dewasa*. It was because the previous sentence talked about platyhelminthes not about human. That was why the students needed to do internal process in order to find out the appropriate meaning based on the context.

In textual meaning problems, nearly all of the students could not deal with it. Since this research used natural science texts as the texts that should be translated, there must be several words that had special/ certain meaning in those fields such as *scale, spring, mass, force, host*, etc. It was assumed that the students did not relate the meaning in the dictionary to the topic/field that was being translated. This problem occurred since the students did not do the first step of translation process which was analyzing the message in source language including the text types, topic of the texts, and certain registers used. If the students analyzed the topic of the text and its registers, the students would be easier in understanding and finding out the meaning of registers that were used.

D. CONCLUSION AND SUGGESTIONS

Based on the findings, it can be concluded that most of the students' translation were in less accurate category. This category was gotten based on the score given by three inter-raters. In biology text, 78.95% students were categorized as having less accurate translation. For about 31.58% students were categorized as having less accurate translation in translating physics text, and 81.58% students were classified into less accurate translation in translating chemistry text.

Furthermore, it also could be concluded that among five classifications of accuracy problems, there were only four meaning problems were occurred including lexical meaning problems, grammatical meaning problems, contextual meaning problems, and textual meaning problems. Among the accuracy problems that were occurred, the biggest numbers of accuracy problems faced by the students were lexical meaning problems for about 57.05%. Also, 25.28% students faced grammatical meaning problems. Since the texts in this research was natural science texts, the students got difficulties in dealing with certain registers. It could be seen that 17.81% student faced textual meaning problems.

There were some suggestions that were needed to be proposed for the English Department students, the translations lecturers, and the next researcher. First, it was suggested for the English Department students to improve their

ability in translating the informative text from English into *bahasa Indonesia* and to learn more about the technique and the process of translation. Second, it was suggested for the translation's lecturers to play a very important role in helping the students to improve their ability in translations. The last, this suggestion fell to the next researchers who were interested in analyzing students' accuracy in translating natural science texts from English into *bahasa Indonesia* to analyze the students' ability in translating passive voices from English into *bahasa Indonesia* since there were many problems related to it in translating natural science texts.

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BIBLIOGRAPHY

- Ardi, Havid. 2010. *Analisis Teknik Penerjemahan dan Kualitas Terjemahan Buku "Asal-Usul Elite Minangkabau Modern: Respon Terhadap Kolonial Belanda Abad ke XIX/XX"* (Unpublished Thesis) Surakarta: Program Pasca Sarjana Universitas Sebelas Maret.
- Ardi, Havid. 2012. "Is Theory Needed to Build Translation Competence?" *Proceeding International Seminar on Languages and Arts (ISLA)*. Padang: Sukabina Press.
- Ardi, Havid. 2014. *Pengantar Teori Penerjemahan*. Padang: FBS Universitas Negeri Padang.
- Baker, Mona. 2001. *Routledge Encyclopedia of Translation Studies*. London: Routledge.
- Baker, Mona. 2009. *Routledge Encyclopedia of Translation Studies Second Edition*. London: Routledge.
- Baker, Mona. 2011. *In Other Words: A Course book on Translation*. London: Routledge.
- Bell, Roger.T. 1991. *Translation and Translating: Theory and Practice*. London: Longman.
- Brown, H. Douglas. 2010. *Language Assessment: Principles and Classroom Practices*. New York: Pearson Education.
- Catford, J.C. 1965. *A Linguistics Theory of Translation: An Essay in Applied Linguistics*. London: Oxford University Press.
- Colina, Sonia. 2003. *Translation Teaching: From Research to the Classroom*. New York: McGraw-Hill.
- Desongpa, Dorsi. 2014. *An Analysis of the Ability of IAIN English Department Students in Translating Some Islamic Terms into Indonesian* (Unpublished Thesis). Padang: FBS Universitas Negeri Padang.
- Echols, J.M & Shadily, Hasan. 1975. *An English-Indonesian Dictionary*. Jakarta: Gramedia Pustaka Utama.
- Floros, Georgios. 2013. *Translation in Language Teaching Assessment*. Cambridge: Cambridge Scholars Publishing.
- Francis & Taylor. 2004. *Translation Studies*. London: Routledge. www.routledgetranslationstudiesportal.com.

- Gay, L.R. 2000. *Educational Research: Competencies for Analysis and Application*. New Jersey: Pearson Education.
- Gay, L.R. 2009. *Educational Research*. New Jersey: Pearson Education Inc.
- Gut, Ernest. A. 1989. *Translation and Relevance*. London: A doctor of Philosophy of the University of London.
- Hatim, Basil & Munday, Jeremy. 2004. *Translation: An Advanced Resource Book*. New York: Routledge.
- House, J. 1997. "A Model for Assessing Translation Quality" *Meta: journal des traducteurs/ Meta: Translation journal*, vol.22, 1997, p 103-109. www.erudit.org.
- House, J. 2001. "Translation Quality Assessment: Linguistic Description versus Social Evaluation" *Meta: journal des traducteurs/ Meta: Translation journal*, vol.46, 2001, p 243-257. www.erudit.org.
- Iqlima, Sonya. 2007. *The Analysis of Students' Ability in Translating Manuals of Medical Equipment from English into Indonesian* (Unpublished Thesis). Padang: FBS Universitas Negeri Padang.
- Larson, M.L. 1998. *Meaning-Based Translation: A Guide to Cross-Language Equivalence*. Boston: University Press of America.
- Levy, Jiri. 2000. *Translation as a Decision Process*. London: Routledge.
- Machali, R. 2000. *Pedoman Bagi Penerjemah*. Jakarta: Gramedia Widia Sarana Indonesia.
- Maulida, Wahyu Sri. 2015. *An Analysis of Students' Accuracy in Translating a Procedure Text From English into Bahasa Indonesia* (Unpublished Thesis). Padang: FBS Universitas Negeri Padang.
- Munday, J. 2001. *Introducing Translation Studies: Theories and Applications*. London: Routledge.
- Munday, J. 2009. *The Routledge Companion to Translation Studies Revised Edition*. New York: Routledge.
- Nababan, M.R. 2003. *Teori Menerjemah Bahasa Inggris*. Yogyakarta: Pustaka Pelajar.
- Nababan, M. R. 2012. "Pengembangan Model Penilaian Kualitas Terjemahan." *Jurnal Linguistik Bahasa*. Vol.24, No.1, Juni 2012: 39-57. Surakarta: Program Pasca Sarjana Universitas Sebelas Maret.
- Newmark, Peter. 1981. *Approaches to Translation*. New York: Pergamon Press.
- Newmark, Peter. 1988. *A Textbook of Translation*. Hertfordshire: Prentice Hall.
- Nida, E.A. & Taber, C. 1982: *The Theory and Practice of Translation*. Leiden: E.J. Brill
- Primawati, Media. 2007. *An Analysis of English Students' Translation of Commercial Advertisement from English into Indonesian*. (Unpublished Thesis). Padang: FBS Universitas Negeri Padang.
- Rahemi, E, F, Jufri, & Havid, A. 2013. The Correlation Between Reading Comprehension And Translation Ability: A Correlational Study On Fourth Year Students At English Department Of UNP. *Journal of English Language Teaching*, 1 (2) Serie C
- Robinson, Douglas. 1997. *Becoming a Translators: An Accelerated Course*. London: Routledge.

- Robinson, Douglas. 2012. *Becoming a Translator: An Introduction to the Theory and Practice of Translation*. New York: Routledge.
- Sadiyani, Ni Wayan. 2011. *The Translation of Indonesian Passive Voice into English with Reference to "Bawang Merah dan Bawang Putih" and its translation "Miss Onion and Miss Garlic"* (Unpublished Thesis). Bali: Postgraduate Program Udayana University.
- Suryawinata, Z. & Hariyanto. 2003. *Translation (Bahasan Teori & Penuntun Praktis Menerjemahkan)*. Yogyakarta: Kanisius.
- Susilawati, Dewi. 2005. *An Analysis of English Department Students' Ability in Translating an Electronic Guide book from English into Indonesian*. (Unpublished Thesis) Padang: FBS Universitas Negeri Padang.
- Syafe'i, An Fauzia R. . *Module of Translation*. Padang: FBS Universitas Negeri Padang.
- Tinambunan, Tedty. R. 2013. "The Analysis of Translation Equivalence on Bilingual Book Active English for Nurses". *Kajian Linguistik* 2013. No. 319-330, 10, 2.
- Werner, Patricia K. 2007. *Mosaic 1 Grammar*. New York: McGraw-Hill.

