The Ability of Translation Students to Translate Environmental Expressions at Jadara University in Jordan

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Abstract

This paper has coped with Environmental Sentences and Expressions (ESE). It aims at investigating the ability of translation students in translating the ESE at Jadara University in Jordan. Based on a practical study, a sample of 20 translation students was chosen randomly from the English Department, nine of them are urban, while eleven students are rural. For achieving the purpose of this paper and to collect data, a test of 25 environmental items was set up; the validity and the reliability were verified by a *panel of judges* at Jadara and Yarmouk Universities. Quantitatively, the researcher used SPSS to analyze data. Frequencies and percentages as a statistic method used to examine students' ability in translating environmental terms and expressions. To know the differences between urban and rural students, *T-test* was used as another statistic method. The results of the study showed a poor level in translating environmental expressions. The results also revealed no significant differences between urban and rural students. In light of the study's findings, it was recommended for issuing environmental course as an elective course for English students, and as a compulsory for translation students. Finally, some suggestions for further researches were written.

Keywords: environment expressions, environment, students' ability in translation, Jadara University

1. Introduction

Translation is transforming the meaning of a text into its equivalent in another language, in other words, it is an art of proficiency that helps a person to understand what others talk or write in other language. It is considered a science that plays a significant role in the developmental issues. Asserting this fact, Al-Shehab (2014) says that translation has played a vital role in exchanging knowledge not only in economic and technological fields, but also in political and social ones. Translation is a device that nations could contact their experiences with each other.

Jin and Deifell (2013, p. 520) state that "translation is a means for bringing learning and wider understanding for the texts being written in the source language". Emphasizing this fact, Catford (1965, p. 17) defines translation as a process of replacement a text in one language with another text in a second language. In this respect, Newmark (1981, p. 13) says: "translation is a craft consisting of the attempt to replace a written message and /or statement in one language by the same message and /or statement in another language". By itself, translation is a controlled linguistic act and it is governed by well-defined procedures, and the translated text in the target language should reflect the meaning found in the source language text.

On the other hand, Daghoughi, and Hashemian (2016, p. 174) state that the translator's responsibility is to reconcile between what is presented in one language and its equivalence in other languages, thus, a high quality of translation could be achieved. Describing the process of translation, it has been governed by several principles, Duff (1989) signifies to the meaning of the source text, as the first of these principles, it should be reflected by the translated text in the target language. He adds, the second principle is the order of words found in the source language text, it should be taken the same order of words in the target language text, besides, and the form in the source language should be sustained and preserved. Finally, the principle regarding the translator, he should reconcile between the most appropriate similes, metaphors, proverbs, and phrasal verbs with the suitable idiomatic expressions in the target language.

There are several kinds of translation, literary, legal, judicial, financial, juridical, certified, Military, and scientific and technical translation. Scientific and technical translation includes all scientific and technological fields. Newmark (1991, p. 153) distinguishes technical styles as; academic, professional, and popular. He continues,

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scientific translation is quite similar to technical translation. Other than the difference is, technical translation translates the sentence specifically as possible, while, scientific translation tends to discussions and explanations of theories, and hence it is a mixture of both technical and literary translation. In the same vein of the previous idea, Williams and Chesterman (2002) say that:

Technical translation covers the translation of many kinds of specialized texts in science and technology, and also in other disciplines such as economics and medicine. The translation of these texts requires a high level of subject knowledge, and a mastery of the relevant terminology. (p. 12)

Al-Shehab (2013, 2014) says that technical translation concerns with selecting the accurate equivalent in the target text to convey the exact message, thus, a successful uttered and written process will be obtained. In other words, Jin and Deifell (2013) underpin Al-Shehab by saying that the accurate equivalent is the core point of technical translation that should be adopted by technical translators. It is emphasized by Araghizade and Jadid (2016), they say that translator with excellent background knowledge in both languages is a required call, and a weak translator may destroy the whole meaning of the text.

Lin (2016) indicates for the reason of adopting technical translation; he says that the appearance of development in technologies in the developed and developing nations, and to communicate with their scientific inventions, attention to technical translation is approved as a current need to face these developments. Lin summarizes, technical translation has recently gained more importance in the field of translation due to the increasing use of various scientific, legal and commercial terms in business, military, trade and human rights. Lin (2016, p. 803) adds, the increasing development in science and technology demands technical translation, and the fact, technical translation accounts 90 percent of all global translations. In the same vein, Al- Shehab (2014) says that the increasing concern of technical translation may be ascribed to the growing development in both scientific and technological fields. Jin and Deifell (2013) underpin Al-Shehab and Lin in their sayings; they state that technical translation has gained more importance in the field of translation due to the increasing use of various scientific, legal and commercial terms in business, and trade and human rights. Environmental translation, regarding my view, ought to be added because of its importance in collecting data about the environment. Therefore, what is said about technical translation is applicable on environmental translation.

Many studies have been done on technical translation. This study takes two periods; 1990s and 2000s. In nineties, as an old period here, a number of studies have been done that deal with various technical translations as follows:

Okour (1997) conducted a study aimed at shedding light on the translatability of the names of car parts from English into Arabic. The researcher used a questionnaire of 100 English technical names of car parts. The sample of this study was about 90 people from various sectors in Jordan. The outcome of this study showed that 60% of car part names had been borrowed and Arabicized, 45% of them had been borrowed without alterations, whilst 55% have been changed and modified to suit the Arabic sound system. Rababah (1995) conducted a study aimed at studying synonymy in Arabic medical terminology. The researcher used a translation test included fifty medical terms distributed to one hundred Jordanian physicians. The test revealed that thirty-nine out of fifty terms have synonymy in Arabic. The researcher surveyed twenty-two volumes of six journals, twenty-two drug leaflets for twelve pharmaceutical companies and five English-Arabic medical dictionaries. The results of these surveys revealed the same results as the translation test that is synonymy exists in Arabic medical terminology. Haddad (1990) further shed light on the medical terms that had been translated into Arabic. A questionnaire of 20 medical terms was used, and the sample consisted of two groups: the students of medicine at the Jordan University of Science and Technology (JUST) and the students of translation at Yarmouk University (YU). The results showed that the meanings of English and Arabic were sometimes identical or partially alike and they even were quite irrelevant in other cases. Moreover, the medical students got higher scores than the YU students in answering the test.

In 2000s, as a modern period, many studies have been done on technical translation. The study of Al-Shehab (2014) has looked for the translatability of military expressions by MA students at Yarmouk University, while the study of Al-Ma'ani (2015) has been done to identify the problems committed by translation students in Al Sultan Qaboos University, Oman. Both of them used a test of technical (military) expressions to examine their samples. They employed university students to achieve the aims of their studies. Otherwise, the researchers, e.g., Moghadam & Far (2015) and Dejica & Stoian (2016), focused on technical translation strategies, and the qualities of good technical translation. Moghadam and Far (2015) used law translated books as a sample, while the sample of Dejica and Stoian (2016) study is a group of individuals specialized and non-specialized in computer engineering.

In the same line of research, the researcher thinks that environmental translation is considered as one of technical translation, it deals with environmental terms and expressions. Awareness of environmental expressions makes people more knowledgeable of environmental issues that are spread nowadays. As such; it could be argued, environmental translation can reconcile between environment and its ethics, which is a global cry that should be adopted to preserve our environment. As a result, the researcher emphasizes the importance of environmental translation because of environmental catastrophes, deforestation, endangered species, and pollution that harm the animals and the environment, in this vein, the environmental translation as a new trend should be taken into consideration academically, at national and global levels.

This study comes into the core of technical translation. It deals with translating Arabic ESE to be translated into English; it also used translation students as a sample at Jadara University in Jordan. Consequently, regarding the researcher's view, environmental expressions are considered one kind of technical ones, they should be known at all levels to save our planet, which is nearly destroyed.

1.1 The Problem of the Study

As previously mentioned, no studies of environmental translation have been found in comparative with other kinds of technical translation. Regarding the researcher view, the reason is due to environmental expressions difficulty and its unfamiliarity in language usage. It is recognized that the majority of studies are dealing with technical translation such as Al-Shehab (2014) and Al-Ma'ani (2015). It is also acknowledged that there are no studies have been done on translating texts and expressions in the area of environment. By this, translating ESE could be considered as a rare subject at postgraduate and undergraduate levels. In other words, at the academic level, there is a lack of such studies that stimulated the researcher to write on this topic, and regarding his viewpoints, the gap caused by neglecting environmental translation will be bridged.

1.2 Objectives of the Study

This study has the following objectives:

- 1) To examine the ability of translation students in translating environmental expressions from Arabic into English at Jadara University in Jordan.
- 2) To examine to what extent translation students can translate Arabic environmental expressions into English.
- 3) To know if there are any statistical differences between urban and rural students at Jadara University in translating environmental expressions from Arabic into English.

1.3 Questions of the Study

The study seeks to answer the following questions:

- 1) What is the ability of translation students in translating environmental expressions from Arabic into English at Jadara University in Jordan?
- 2) To what extend can translation students at Jadara University translate Arabic environmental expressions into English?
- 3) Are there any statistical differences between urban and rural students at Jadara University in Jordan in translating environmental expressions from Arabic into English?

1.4 Significance of the Study

As the result of the rapid development in the field of technical translation; this study comes up to highlight a new topic of environmental translation that was ignored at the academic level, and thus, the significance of the present study emerged from its subject. With a bit of attention, researchers are encouraged to carry out such academic studies in the translation field. Hopefully, this study may possible give some data about environmental subjects to translation students at the academic level.

At the same sense, this study could help Jordanian Universities in designing courses dealing with translating environmental texts, terms and expressions, similarly, the specialist courses engaged in the translation of legal, commercial and political texts and expressions.

1.5 Limitations of the Study

The results of the study are limited to the test used with 25 environmental expressions. The number of translation students is 20, by itself; the sample of this study is too small to be generalized. Commonly, the results of students' ability, obtained, are not a perfect indicator to be generalized. As this vein, the results of the study are restricted to the test, and the sample employed.

2. Methods

Based on a practical test, this study explores the ability of translation students in translating environmental expressions and sentences from Arabic into English. The methodology shows the population and the sample of the study, data collection represented by a test used to achieve the aims of the study, followed by practicing its validity and reliability, and, finally, data analysis that has been written.

2.1 Population and the Sample of the Study

The Department of English Language and Literature is about 250 students who study translation, linguistics and literature at Jadara University in Jordan (2017/2018). The researcher selected a random sample of nine urban and eleven rural translation students, so, the sample is 20 students. Those students have studied different courses in English and Arabic translation, it is assumed from them to be active in their translation.

2.2 Data Collection

For attaining the study's objectives, and to know the ability of students in translation, the researcher looked for environmental expressions by reading a book called "environmental science" written by Elden D. Enger and Bardely F, Smith. The researcher selects 30 Arabic environmental sentences and expressions (items), e.g., (Acid rain) الموددة بالانقراض (environmental balance) التوازن البيئي (endangered species) التوازن البيئية هم الناس الذين يحبون العالم الطبيعي (Environmentalists are people who love the natural world) دعاة حماية البيئة هم الناس الذين يحبون العالم الطبيعي (Urbanization is a global trend) التحضر توجه عالمي

2.2.1 The Validity of the Test

The researcher tabulated the previous environmental expressions in a list; it was exposed to a "panel of environmental experts" at Yarmouk University in Jordan. They were asked to observe its suitability for measuring students' ability to translate the items. The experts deleted five items (الكثير من النباتات السامة في حديقتها, الحفاظ على الطاقة, حفظ النظام الإيكولوجي للبحر الميت because of their repetition in the meaning with some sentences attached, and, then their comments and remarks were taken into the researcher's account. Consequently, the validity was realized, and a list of 25 items as a test was set up, and the variable of residency (urban and rural) was added to be studied. Please see Appendix A.

2.2.2 The Reliability of the Test

To get the reliability of the test, *test* and *retest* method was used, it was given to ten translation students outside the sample, and after ten days it was given to them. Correlations coefficient was used between the two tests, and (r) was computed, it is (0.90). By itself, the validity and the reliability were achieved.

The criteria for scoring the test is as follows: for the correct translation (4) marks with an excellent level, (3) marks for the good translation, two marks for the fair level in translation with partly right, and finally, zero mark for the bad and incorrect translation. If the student achieve (5) correct items, (10) good items, fair level (7) items, and zero level for (3) items, the result of his test is as follows; $(5 \times 4 + 10 \times 3 + 7 \times 2 + 3 \times 0 = 64)$, so, the student level is 64 percent, and he is fair in his level. Consequently, a poor level is under 50 percent.

2.3 Data Analysis

To answer the first and the second questions, mathematical mean, percentages and ranks were used. For answering the third question, t-test was used to show if there any statistical differences between urban and rural students in translation. The discussion was utilized to analyze the results presented, and to be compared, if any, with other studies.

2.4 Variables of the Study

The study deals with the following variables:

- Independent variables embedded in studying various translation textbooks, without signifying to them here.
- Dependent variable is students' ability in translating environmental items from Arabic into English. Odeh& Malkawi (1991) say that the influence of independent variable is to cause an effect in the dependent variable.
- Moderate variables; residency (urban, rural).

3. Results

3.1 Answering Q1

What is the ability of translation students in translating environmental expressions from Arabic into English at Jadara University in Jordan?

For answering this question, mathematical mean, percentages and ranks are used. Table 1 shows students' results in translating Arabic environmental expressions into English. The total mean score for all students is 11 with 44%; it is too low, as the students are studying translation at this university. The high mark is 84%, one student has got it, and the second high mark is 80%, then the third mark is 68%. There are only three students have got within sixty level. Three students have achieved 52%, while a group of six students' scores ranged between 40% to 48 %, they are failed to reach the passing grade (50%). Finally, six students have failed and have got the poor level; two of them have achieved zero marks.

Table 1. Translation students' ability in translating Arabic ESE into English

Student	Average	%	Rank	
1	10	40	12	
2	6	24	18	
3	10	40	12	
4	13	52	6	
5	11	44	11	
6	8	32	15	
7	12	48	9	
8	10	40	12	
9	12	48	9	
10	17	68	3	
11	0	0	19	
12	16	64	4	
13	15	60	5	
14	20	80	2	
15	21	84	1	
16	7	28	17	
17	8	32	15	
18	13	52	6	
19	13	52	6	
20	0	0	19	
All	11	44		

3.2 Answering Q2

To what extend do translation students at Jadara University can translate Arabic environmental expressions into English?

For answering the second question, the study computes the means, percentages and ranks for each Arabic environmental expression. Table 2 shows environmental items together with their means and percentages of English translation. The highest level is for the Arabic environmental expression that has got an excellent level, i.e., lead level is for the Arabic environmental expression that has got an excellent level, i.e., acid rain, it has got (3.4) with the percentage of 85. The second rank is for Arabic item المطر الحمضي atmosphere, which has achieved (3.0) with the percentage of 75, المواد العالمي Global warming that has got (2.8) with 70%. The level of translation for these expressions may be possible ascribed to their universal use, in addition to their familiarity than others at the area of scientific field.

Table 2. Means, percentages and ranks of Arabic ESE into English

No.	Environmental expression	Mean	%	Rank
1	acid rain	3.4	85	1
2	atmosphere	3.0	75	2
3	Environmental balance	2.4	60	6
4	biodegradable	0.6	15	24
5	biodiversity	1.2	30	17
6	Environmental catastrophe	1.8	45	15
7	deforestation	2.4	60	6
8	destruction	2.6	65	5
9	Stopped destruction of rainforest	2.8	70	3
10	Drought had ruined the crops	2.2	55	11
11	The disappearance of many species	2.4	60	6

12	Hazardous waste disposal	2.4	60	6
13	Endangered species	1.4	35	16
14	energy-efficient	0.8	20	22
15	Environmentalists are people who love the natural world.	1.2	30	17
16	Wind and water are the main factors of soil erosion	1.2	30	17
17	Global warming	2.8	70	3
18	Pollution can harm the animals and the environment	2.2	55	11
19	Industrial waste	2.2	55	11
20	Renewable energy system converts the energy in sunlight and wind	2.0	50	14
21	Toxic waste threaten the sea	0.6	15	24
22	Urbanization is a worldwide trend	0.8	20	22
23	Recycling of waste papers	2.4	60	6
24	Wind power is widely used in South Africa to pump water	1.0	25	20
25	Industrial waste can contain small amounts of radioactive materials	1.0	25	20
	Mean of all items	1.88	47	

The fair level is for the second group of items that have got above 50%, they are ten environmental expressions, six of them have got above 60%, e.g., التنبي destruction, التوازن البيني Environmental balance, العدة تدوير النفايات Recycling of waste papers, الورقية الغابات Recycling of waste papers, الورقية الغابات Renewable energy system converts the energy in sunlight and wind, يمكن أن يضر التلوث بالحيوانات والبيئة Pollution can harm the animals and the environment.

The low level is for translating the third group of eleven Arabic environmental expressions, they have got under 50%, e.g., قديم المعالمة على كميات صغيرة من المواد المشعة Industrial waste can contain small amounts of radioactive materials, المحالة السامة البحار Toxic waste threaten the sea, الرياح والمياه هي العوامل الرئيسية لتآكل التربة, Wind and water are the main factors of soil erosion.

3.3 Answering O3

Are there any statistical differences between urban and rural students at Jadara University in Jordan in translating environmental expressions from Arabic into English?

The variable studied is residency with two groups (rural, urban). The mean scores for both groups are computed by using SPSS. Urban students have got 11.8 with 47.2 %, while the mean score of rural students is 10.2 with 40.8% as in table 3. The standard deviation for rural and urban students are 7.2, 2.1 respectively.

Table 3. Means, percentages and standard deviations for rural and urban students' translation

Residency	Mean	St.D	t	df	Sig
Rural	11.8	7.2	.35	18	.088
Urban	10.2	2.1			
All	11	5.5			

To see if there is a statistical difference between the two groups, t- test is used. See table 4

Table 4. T-test between Rural and urban students in translating Arabic ESE into English

Residency	Number	Mean	%	St.D
Rural	11	11.8	47.2	7.2
Urban	9	10.2	40,8	2.1
All	20	11	44	5.5

From table 4, the result revealed no statistical differences between rural (countryside) and urban (cities) students in translating Arabic environmental expressions into English.

4. Discussions and Conclusions

This study aims at recognizing the ability of translation students to translate Arabic environmental terms into English; it selects 20 translation students from English Department at Jadara University in Jordan. The study's test used is a validated and a reliable list includes 25 Arabic environmental items. Although the samples of students and

environmental terms are too small, the results obtained are important to scientific field.

Table 1 indicates the low degree of students in translating environmental terms, it is due to the fact that these expressions are not dealt with at the local level, and that environmental textbook is not taught in the English language section in general. In this vein, there is no textbook in environmental translation has been taught for translation students, it is skipped at the department level. To achieve progress in scientific translation branches, environmental expressions could get their seat in scientific language, and this means that there is a plethora of special languages that may noticeable through a range of dialogues that reflect various technical genres.

Regarding Q2, it could be seen, no correct translation has been achieved for Arabic environmental items, and nearly half of them are within the low level. The acceptable level of translation is for ten items, while the good level of translation is for four items. The level of translation here is governed, first, by the exact equivalence, second, by relevance translation, and, third, by connotative meaning.

In general, the low level may possible referred to students' knowledge of such items, most of them are belonged to literary stream at their secondary schools, and they don't have a background of scientific terms and expressions.

Table 4 exposes the result of t-test, the students are equal in their results; this is attributed to equal standards of living between the countryside and cities, where the Jordanian countryside is a civilized society, especially in the North of the Jordanian Kingdom where Jadara University located.

In sum, it is concluded, the majority of students' marks in translating environmental expressions are within the low level, only few students are above 60%, and two students have got above 80%. And two students have achieved zero in their translation. They cannot deal with determining the exact English equivalence for Arabic environmental expression; therefore, the students not only fail in their translation and get the worst level, but also commit a verity of syntactic and grammatical mistakes. Those mistakes will be studied and analyzed by the researcher in the near future research. However, despite the various translation genres that were studied at English Department at Jadara University, no attempt has been made to study environmental translation as a compulsory or elective course. Such an attempt is urgently needed to meet the needs of the students to improve their translation in such field.

In light of the previous results, this study recommends for the following:

- Issuing environmental textbook for English-Arabic translation to be studied as a compulsory course for translation students at the one hand, and on the other hand, as an elective course for English students not only at the English department at Jadara University, but also at all the Jordanian universities in Jordan.
- Raising awareness and ethics toward environmental translation should be adopted. Adopting such ethics could face the global cry to rescue the earth from deterioration and damage. So, efforts to improve environmental translation could far contribute to gain more knowledge nationally and globally.

The study also suggests the following:

- Carrying out empirical and practical researches dealing with examining the level and the ability of students in translating environmental sentences and texts at all universities in Jordan.
- Studying syntactic and grammatical problems facing translation students when translating environmental sentences and texts.
- Carrying out comparative studies between translation students in translating environmental sentences and expressions at public and private universities in Jordan.

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Appendix A Translating Arabic ESE into English

Translate the following environmental sentences and expressions into English, please circle your location:

1. Urban

2. Rural

No.	Environmental expression	English translation
1	المطر الحمضي	acid rain
2	الغلاف الجوي	atmosphere
3	التوازن البيئي	Environmental balance
4	قابلة للتحلل الحيوي	biodegradable
5	التنوع البولوجي	biodiversity
6	كارثة بيئية	Environmental catastrophe
7	از الة الغابات	deforestation
8	تدمير البيئة	destruction
9	وقف تدمير الغابات المطيرة	Stopped destruction of rainforest
10	دمر الجفاف المحاصيل	Drought had ruined the crops
11	اختفاء الكثير من الانواع	The disappearance of many species
12	التخلص من النفايات الخطرة	Hazardous waste disposal
13	الأنواع المهددة بالانقراض	Endangered species
14	كفاءة الطاقة	energy-efficient
15	دعاة حماية البيئة هم الناس الذين يحبون العالم الطبيعي	Environmentalists are people who love the natural world.
16	الرياح والمياه هي العوامل الرئيسية لتأكل التربة	Wind and water are the main factors of soil erosion
17	الاحترار العالمي	Global warming
18	يمكن أن يضر التلوث بالحيوانات والبيئة	Pollution can harm the animals and the environment
19	الفضلات الصناعية	Industrial waste
20	يحول نظام الطاقة المتجدد الطاقة الموجودة في أشعة	Renewable energy system converts the energy in sunlight and
	الشمس والرياح	wind
21	النفايات السامة تهدد البحار	Toxic waste threaten the sea
22	التحضر توجه عالمي	Urbanization is a worldwide trend.
23	إعادة تدوير نفايات الورق	Recycling of waste papers
24	يستخدم طاقة الريح على نطاق واسع في جنوب أفريقيا	Wind power is widely used in South Africa to pump water
	لضخ المياه	
25	المخلفات الصناعية يمكن أن تحتوي على كميات صغيرة	Industrial waste can contain small amounts of radioactive
	من المواد المشعة	materials

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