The Role of Syntax Tree in Translation

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Abstract

This study investigated attitudes of some students toward using syntax tree to solve their difficulties in translation courses. The purpose of this study was to investigate students' attitudes toward using syntax tree for solving translation problems. The participants of this research were 10 students studying at a junior level in Yanbu University College in Yanbu Industrial City - Saudi Arabia. Their ages were between 21-25 years. Their English proficiency was intermediate level. It was a quantitative study. A close-ended questionnaire was used to collect data. The results of the collected data showed that syntax tree had unclear attitudes toward using it to solve translation problems.

Keywords: syntax, translation, attitudes, EFL students

INTRODUCTION

Translation has an important role in the world. Through translation, we can share our knowledge, idea, information, and thought. Translation means "the process of translating words or text from one language into another (Oxford dictionary, n.d)." Recently, many students, who study applied Linguistics (AL) in Yanbu University College YUC, face many difficulties in translation courses. The reason for that, their major focuses only on AL courses, so when they start to take translation courses, they cannot translate well while they get the meaning. No one tries to link their courses with translation courses. Although AL courses play an important role in translation. We cannot translate without knowing the grammar for both languages, so syntax, which is a course in AL major, can make a huge difference in translation courses if we use it as a technique to solve students' problems in translation. Syntax defines as "the arrangement of words and phrases to create well-formed sentences in a language (Oxford dictionary, n.d)."

Majority of the students face many difficulties in translation courses and they are unable to translate correctly. The reason for that, there is no connecting between their courses' major and translation courses. Therefore when students wanted to translate a passage, they only focus on the meaning of that passage. Many of them ignore sentence structures when it can make a world of difference in the understanding of passages. Syntax trees can help students to solve a misunderstanding that happens when students do not get the meaning.

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The purpose of this study was to investigate students' attitudes toward using syntax trees for solving their translation problems.

This study answered the following question:

- What was Applied Linguistics students' attitudes toward using syntax trees for solving translation problems?

LITERATURE REVIEW

This chapter presents a theoretical background of the study. In this part, there is an overview of the key concepts of the study. Also, this chapter presents the previous studies that talked about the effect of syntax trees.

Key Concepts

Translation. Nida, (1969) as cited in Bangga, (2012) states that translation consists of reproducing from the target language the closest equivalence with the source language, starting with the terms of meaning; Then, with the terms of style. Also, suggests that a performance in another language of a written or spoken for the meaning of a word or text. (Oxford dictionary, n.d). It claims that "a rendering from one language into another; also: the product of such a rendering." (Merrian-webster dictionary, 1999). Ghazala, (1995) as cited in Osman, (2017) states that translation is the whole process and methods that use to transfer the meaning from the source language into the target language.

Syntax. Rouse (2005) contends that "Syntax is the grammar, structure, or order of the elements in a language statement." As suggested by Nordquist (2017), syntax can be defined as the group of words which are in sentences. Also, it is considered one of the major components of grammar. It is found that the way of putting linguistic elements to form constituents such as phrases or clauses (Merrian-webster dictionary, n.d).

Problem. It maintains that "a situation, person, or thing that needs attention and needs to be dealt with or solved (Cambridge dictionary, n.d)." It argues that a matter or situation is considered as unpleasant or harmful, so it needs to deal and overcome (Oxford dictionary, n.d). It states that a question which is raised for inquiry, consideration, or solution (Merrian-webster dictionary, n.d). It points out that problem is an unsatisfactory situation and causes difficulties for people (Collins dictionary, n.d).

Previous Studies

The first experimental study conducted by Huang, Bryant, and Knight (2006) relabeling syntax trees to develop a syntax-based machine translation quality. It was conducted at the University of Southern California. The study was analyzed a problem, contrasting two languages structures and relabeling a system. To do that, researchers identified the structures for English and Chinese language; then, they made contrast between the two languages in syntax trees. Described their data and experimental procedure, using a reimplementation of Collins' Model 2 (Collins, 1999) to parse the English half and using a word- aligned using GIZA++ (Och and Ney, 2000) for the two the other halves. Chinese strings, English parse trees, and their word alignments all these elements were entered into their experimental procedure that included five steps: (1) tree relabeling, (2) rule

extraction, (3) de-coding, (4) best-reranking, (5) evaluation. The result of the study, they proved how relabeling syntax trees for use in syntax-based machine translation could boost translation performance.

Another study was carried out by Kaljahi and Samad (2015), the role of syntax and semantics in machine translation and quality estimation of machine-translated user generated content. In this study, it was taken five different machine translation methods; then, researchers compared the output for them. They figured out those systems generate sufficiently different. Therefore, the combination of those systems was substantially better than each individual system. The data which was used for translation models of their machine translation system consisted of English-French (En-Fr) and English-German (En-De) of Symantec translation memories. The En-Fr parallel data contained 975,102 sentence pairs and the En-De 1,029,741 pairs without duplicates. Finally, a released SymForum was created, a group of data for quality estimation of machine translated forum text that included 4,500 machine-translated sentence pairs post-edited manually assessed in both fluency and adequacy.

Another study conducted by Och et al., (2003) on a syntax for statistical machine translation. Their goal was to integrate syntactic structure into statistical models to address that problem. They chose a very strong baseline – the alignment template statistical machine translation system which gained the best results in the 2002 and 2003 DARPA MT evaluations. During their workshop, which created to do this study, they developed more than 450 different feature functions for those machine translator that could solve syntax problems. Their feature functions were divided into two categories: implicit syntactic feature functions and explicit syntactic feature functions. The BLEU score developed from 31.6% for the baseline MT system to 33.2% using rescoring of a 1000-best list by using feature functions.

There is a big distinction between this research and those previous studies. All those studies discussed using syntax in machine translators. That means, they focused how they might improve syntax to get perfect translations. However, this research will focus how the researcher will solve students' problems of translation by using syntax. The focus on the human not on machine translators. This was the aim of this study to make students use syntax when they face difficulties in a translation. The most important point about this study, it did not ignore the role of meaning and how it plays an important role in translation, but also the structure of sentences is very important. The meaning and structure complete each other. Here, the dissection toke only the syntax aspect because many of students ignore it.

METHOD

This section includes an explanation of the research process in detail. It covers research type, research tools, participants and data collection procedures. It was a quantitative study. A close-ended questionnaire was used to collect data.

Participants

The participants of this research were 10 students studying at a junior level in Yanbu University College in Yanbu Industrial City - Saudi Arabia. All participants were females and their age was about 21-25 years old. Also, the participants were EFL learners studying general Translation courses in 3 semesters. The participants' English proficiency level was intermediate level.

Instruments

A questionnaire was distributed among the participants to know students' attitudes toward using syntax trees in translation courses. Questionnaire was designed by the researcher to gather information about students' attitudes toward using syntax trees for solving translation problems. The questionnaire was contained 10 statements. The Likert scale was consisted of five responses strongly agree, agree, neutral, disagree and strongly disagree. It was translated into Arabic language to avoid any misunderstanding of statements. The purpose of this questionnaire was to know students' attitudes toward using syntax trees in solving translation problems.

Data Collection Procedure

First of all, the research was applied to solve translation problems that are faced by students by using syntax trees. The data in this research was collected by using qquestionnaire. The researcher chose ten participants from Yanbu University College who were studying at a junior level (21-25 years old). They were introduced to the syntax trees and asked to use them for a period of two weeks. After that, the researcher designed a questionnaire and distributed it to know participants' attitudes toward using syntax trees in solving translation problems. Responses to all statements were analyzed and the results were presented in the form of tables.

RESULTS AND DISCUSSION

This section presents the results and analyses the collecting data.

Data Analysis of Questionnaire

The researcher designed a questionnaire that contained 10 statements. A Likert scale was used with responses from 5 to 1; 5 stands for strongly agree, 4 stands for agree, 3 stands for neutral, 2 stands for disagree and 1 stands for strongly disagree. The results of the questionnaire are shown in Table 1.

Table 1. Response frequencies for questionnaire items

Statements	SA 5	A 4	N 3	D 2	SD 1	Mean Response
1- Syntax trees strategy helps me solve translation problems.	4	6	0	0	0	5
2- Syntax tree strategy is more useful than the traditional methods for solving translation problems.	5	1	2	2	0	2.5
3- Syntax tree strategy allows me to give a correct translation.	3	5	2	0	0	3.33
4- Syntax tree strategy helps me understand texts correctly.	5	5	0	0	0	5
5- Syntax tree strategy is an easy way to solve translation problems.	2	4	2	2	0	2.5
6- Syntax tree strategy makes me sure for my translation.	2	3	5	0	0	3.33
7- Syntax tree strategy helps me think deep in the translation.	6	3	0	1	0	3.33
8- Syntax tree strategy has a simple design which is not waste my time	2	3	2	2	1	2.5
9- I enjoy translating through using Syntax tree strategy.	2	4	2	1	1	2
10- I will always use syntax tree strategy when I face difficulties in translation.	3	2	2	2	1	2

Table 1 demonstrated students' attitudes toward using syntax tree to solve translation problems. First, the mean response to statement 1 (5) showed that the majority of the students thought that syntax tree strategy solved translation problems because they used it while they translated difficult sentences and it helped them. The results of this research supported the findings of Huang, Bryant, and Knight (2006) that showed this strategy helped machain translotors to give a good translation. Also, the mean response to statement 2 (2.5) found that the majority of the students were satisfied with the new technique than the old techniques. This strategy helped them to give a correct translation and this was shown by the mean response to statement 3 (3.33). Furthermore, this finding demonstrated that syntax tree helped them to understand correctly; this was clear by the mean response to statement 4 (5). The mean response to statement 5 (2.5) showed that some students thought syntax tree strategy was an easy to solve translation problems. Moreover, statement 7 (3.33) suggested that the students thought syntax tree strategy helped them think deeply in the translation. Otherwise, the mean response to statement 8 (2.5) was no agreement on it because not all students agreed about syntax tree's design. Moreover, the mean response to statement 9 (2) showed that syntax tree strategy was not enjoyable for the majority of the students. Also, the mean response to statement 10 (2) found that some students did not want to use syntax tree strategy while they translate texts because they were not good at it.

The experimental group showed an unclear attitude towards using syntax trees; that might happen because this paper was quantitative that was only based on opinions of the participants. Therefore, students could not agree on something when they did not practice it. Also, this was contrary to previous studies which all of them were succeeded.

CONCLUSION

The purpose of this study was to collect students' attitudes toward using syntax trees for solving difficulties that students face during translation. Students' attitudes were not clear because they answered the questionnaire in confusing ways. In some statements,

they showed their agreement. However, in another sentence, they showed disagreement. Therefore, the research cannot say that syntax tree has a positive attitude.

In this research, some limitations were faced. First, the time duration of the research paper was limited. For that, the researcher made the quantitative paper instead of the qualitative paper. Second, the number of the participants was limited. A large number of the participants would have enhanced the chance to generalize the findings of the study. Third, the time duration for the researcher was limited. Therefore, the researcher could not read more about this topic and look how other researchers discussed it. Searching for different resources would be so helpful to examine all positive and negative aspects of syntax trees technique.

A set of recommendations was suggested based on the results of this study. First, teachers should advise students to create their own technique during translation. Second, students can try to practice syntax trees technique with their translation course to decide that technique is useful or not.

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APPENDIX

The purpose of this questionnaire is to investigate your attitude towards using syntax tree for solving translation problems.

الغرض من هذا الاستبيان هو معرفة رأيك اتجاه الرسم الشجري لتركيب الجملة في حل مشاكل الترجمة.

Please check (√) in the box that best reflects your opinion about each of the following:

فضلاً، ضعي علامة (√)في الخانة التي تمثل وجهة نظرك للعبارات التالية:

Statement العبــــارة	Strongly agree اوافق بشدة 5	Agree اوافق 4	Neutral محايد 3	Disagree لا اوافق 2	Strongly disagree لا اوافق بشدة 1
1- Syntax trees strategy helps me solve translation problems. تساعدني استراتيجية الرسم الشجري لتركيب الجملة في حل مشاكل الترجمة					
2- Syntax tree strategy is more useful than the traditional methods for solving translation problems.. تُعدّ استراتيجية الرسم الشجري لتركيب الجملة أكثر فائدة من الطرق التقليدية لِحل مشاكل الترجمة					
3- Syntax tree strategy allows me to give a correct translation. تسمح ليّ استراتيجية الرسم الشجري لتركيب الجملة بإعطاء ترجمة صحيحة					
4- Syntax tree strategy helps me understand texts correctly. تساعدني استراتيجية الرسم الشجري لتركيب الجملة في فهم النصوص بشكل صحيح					
5- Syntax tree strategy is an easy way to solve translation problems. تُعدّ استراتيجية الرسم الشجري لتركيب الجملة طريقة سهلة لِحل مشاكل الترجمة					
6- Syntax tree strategy makes me sure for my translation. تجعلني استراتيجية الرسم الشجري لتركيب الجملة متأكده من ترجمتي					
7- Syntax tree strategy helps me think deep in the translation. تساعدني استراتيجية الرسم الشجري لتركيب الجملة على التفكير العميق في الترجمة					
8- Syntax tree strategy has a simple design which is not waste my time. تمتلك استراتيجية الرسم الشجري لتركيب الجملة تصميم بسيط لا يضيع وقتي					
9- I enjoy translating through using Syntax tree strategy. أستمتع بالترجمة باستخدام استراتيجية الرسم الشجري لتركيب الجملة					
10- I will always use syntax tree strategy when I face difficulties in translation. سأستخدم دائمًا استراتيجية الرسم الشجري لتركيب الجملة عندما أواجه صعوبات في الترجمة					