# Exploring the Role of Machine Translation in Translating English Collocations into Arabic: Insights from Student Translators

Yasser Muhammad Naguib Sabtan<sup>1,2</sup>, Abdulfattah Omar<sup>3,4</sup>& Wafya Ibrahim Hamouda<sup>5</sup>

Correspondence: Abdulfattah Omar, Department of English, College of Science & Humanities, Prince Sattam Bin Abdulaziz University, Saudi Arabia.

Received: October 19, 2023 Accepted: December 7, 2023 Online Published: December 28, 2023

#### Abstract

Machine Translation (MT) has increasingly become an essential technology in the modern age. MT technology is currently used by many EFL learners as a learning facilitator. They are using MT as an essential tool to assist them in their foreign language learning activities. Several studies have focused on investigating the EFL students' use of and attitudes towards MT in various EFL learning activities including reading, writing and vocabulary acquisition. However, few studies have been conducted on exploring the EFL learners' use of MT technology in the translation of collocations, especially in the Arabic context. This study addresses this gap by investigating the impact of MT on the translation of English lexical collocations into Arabic. It presents a corpus of twenty English collocations given to thirty third-year translation students at an Omani university, who utilized an online MT system for their translations. Employing a descriptive, qualitative approach, the study assesses students' strategies and the accuracy of MT-generated equivalents, drawing from translation models by Vinay and Darbelnet (1958) and Newmark (1988). The results indicated that the students were able to generate correct translations for certain collocations when using MT, but there were inaccuracies in the translation of other collocations. The study emphasized the importance of not solely depending on MT because doing so might reduce students' willingness to actively search for the most appropriate translations on their own. This suggests that a balanced approach to using MT and encouraging students to develop their translation skills independently is advisable. Future research can explore the use of Machine Translation in translating collocations in languages beyond Arabic and within different cultural and linguistic contexts.

Keywords: machine translation, English collocation, student translators, translation technology, translation pedagogy

## 1. Introduction

Machine translation refers to the use of computer software to automatically translate text or speech from one language into another (Arnold et al., 1994; Baker and Saldanha, 2008). It has become an essential tool in this age of information technology. Due to the increasing demand for different types of translation, MT is currently used on a large scale all over the world (Almutawa & Izwaini, 2015).

Nowadays, MT technology is used by many EFL learners as a basic tool that facilitates their learning process. Clearly, nearly all students with their different levels currently use MT to assist them in their foreign language learning activities, including translation.

Many researchers have focused their studies on investigating the EFL learners' attitudes towards and use of MT in the process of foreign language learning (Bin Dahmash, 2020, Alharbi, 2023), including various EFL activities such as reading, writing and vocabulary acquisition (Ni ño, 2009; Omar, 2021).

However, to the researchers' best knowledge, few studies have been conducted on exploring the use of MT technology by EFL students in the translation of collocations, especially among Arab students. This study is an attempt to address this gap through studying the implications of using MT in the translation of collocations from English into Arabic.

Collocation, broadly defined as the "habitual co-occurrence of individual lexical items" (Crystal 1981, cited in Newmark, 1988, p. 212), has been identified as a problem by linguists, translators and EFL learners (Brashi, 2009). Palmer (1979) states that collocations are problematic for both native speakers and EFL learners.

To achieve the goal of the current study, a corpus consisting of twenty English collocations in their sentential contexts were given to thirty 3rd-year students in an Omani private university and they were asked to translate them into Arabic, using online MT systems. These are lexical collocations of two major types: adjective + noun and verb + noun collocations. Grammatical collocation, which is composed of a

<sup>&</sup>lt;sup>1</sup> Department of English Language and Literature, College of Arts and Applied Sciences, Dhofar University, Oman

<sup>&</sup>lt;sup>2</sup> Department of English, Faculty of Languages and Translation, Al-Azhar University, Cairo, Egypt

<sup>&</sup>lt;sup>3</sup> Department of English, College of Science & Humanities, Prince Sattam Bin Abdulaziz University, Saudi Arabia

<sup>&</sup>lt;sup>4</sup> Department of English, Faculty of Arts, Port Said University, Port Said, Egypt

<sup>&</sup>lt;sup>5</sup> Department of Foreign Languages, Faculty of Education, Tanta University, Tanta, Egypt

content word (e.g. verb, noun, adjective) and a preposition or a grammatical structure such as a clause or infinitive, is outside the scope of the current study.

In actual fact, students faced some problems while translating the collocations from English into Arabic, even with the use of MT systems, as they mostly used literal translation method in their translation. It has been widely discussed in the literature that using appropriate collocations in the TL is one of the main challenges for translators (Hatim and Mason, 1990).

#### 2. Research Questions

The current study aims to investigate EFL student translators' use of MT in translating English collocations into Arabic. The study, thus, attempts to answer the following research questions:

- 1) What are the problems EFL translation major students encounter in translating collocations?
- 2) What are the strategies that EFL translation major students use to render English collocations into Arabic?
- 3) To what extent did MT help EFL translation major students to provide accurate equivalents of collocations in Arabic?
- 4) What are the implications of using translation technology in the translation classroom?

## 3. Literature Review

#### 3.1 Overview of MT

Since we live in the age of information technology, MT has become a main technology nowadays. As there is a growing demand for translation, MT is now increasingly used by many people worldwide. In reality, human translators cannot cope with the large number of texts and documents that are in need of translation in every domain. Therefore, they resort to using MT systems to help them in their translation tasks, since MT can really save them both time and effort (Almutawa & Izwaini, 2015). Translators can use MT systems to provide first-draft translations that they could then post-edit to produce accurate translations. Post-editing, according to Allen (2003), is the correction of MT-generated texts.

Various MT systems such as Google Translate, Systran, Babylon, Microsoft Translator, Bing Translator and Amazon Translate have been developed for a good number of languages. However, the quality of the output of these MT translations is still questionable (Sabtan et al. 2021). Google Translate (GT) is one of the several MT systems that are currently used to translate texts from one natural language to another. GT, as pointed out by Alqudsi et al. (2014), supports over 55 different languages. GT is currently the most widely used MT system for the English-Arabic language pair (Sabtan et al. 2021).

Generally speaking, MT is basically classified into two main types: rule-based MT and corpus-based or statistical MT (Sabtan, 2020). Rule-based MT systems use bilingual dictionaries as well as hand-written grammatical rules to create translations. (Hutchins & Somers, 1992; Somers, 2003). As for corpus-based or statistical MT, Somers and Diaz (2004) point out that this type of MT is basically a data-driven approach in which a parallel or (translation) corpus of source language (SL) texts and their target language (TL) translations is used as a model on the basis of which an MT system could generate its new translation. Currently most systems have shifted to the use of a new approach of statistical MT, i.e. 'neural machine translation (NMT). This type of MT also makes use of large volumes of bilingual data but applies neural networks and is currently the preferred type of MT (Forcada, 2017). According to Wu et al. (2016) and Johnson et al. (2017), Google Translate has recently shifted to the NMT approach.

## 3.2 Use of MT in the Classroom

Several studies pointed out that the majority of EFL learners use MT, especially Google Translate, in the process of foreign language learning (Bin Dahmash, 2020, Alharbi, 2023).

Some studies investigated EFL learners' attitudes towards the use of free MT systems (Jolley and Maimone; 2015; Alhaisoni and Alhaysoni, 2017; Çakır & Bayhan, 2021). They showed that almost all learners used online MT systems, especially Google Translate. They noted that most of the participants agreed that MT is a beneficial tool despite the challenges they faced.

Other studies focused on investigating the use of MT as a tool for learning a foreign language (e.g. Ni ño, 2009; Omar, 2021). Ni ño (2009) argued that learners can identify errors in the MT output and so they can understand the foreign language in a better way. Omar (2021) concluded that MT is widely used among EFL learners in vocabulary acquisition, but it has its shortcomings and challenges.

A third line of research focused on post-editing, which, as pointed out above, is the correction of MT-generated texts (Allen, 2003). The rough translations outputted by an MT system could be post-edited by a human translator to produce accurate translations (Anggrina et al. 2017; Alsalem 2019; Sabtan, 2020).

#### 3.3 Collocations

As shown above, most studies focused on investigating the EFL learners' use of and attitudes towards MT in various EFL activities (e.g. reading, writing, vocabulary, etc.). This paper focuses on exploring the use of MT technology by EFL students in the translation of collocations in the context of English-Arabic language pair.

Collocation "denotes the way in which words tend to be used with others" (Husni & Newman, 2015). According to Crystal 1981, a collocation is "habitual co-occurrence of individual lexical items' (cited in Newmark, 1988, p. 212). In other words, collocation refers to

Vol. 14, No. 2; 2024

two or more words always occurring together in different texts and contexts in a language (Ghazala, 2008). For example, a certain noun occurs with a certain adjective (e.g. strong tea ("شاي ثقيل"), a verb with a noun (e.g. seize the opportunity (بنتهز الفرصة"), a noun with a noun (e.g. brain drain أهجرة الأدمغة), etc. Thus, strong tea is an acceptable collocation, while powerful tea may be considered an unacceptable word combination in English, despite the fact that strong and powerful are synonyms (Brashi, 2009).

Collocation has been identified as a problem by linguists, translators and EFL learners (Brashi, 2009). Palmer (1979) states that collocations are problematic for both native speakers and EFL learners. In fact, EFL learners' knowledge of collocation (or collocational competence) is essential for mastering a foreign/second language. According to Brashi (2009), students should observe which words co-occur together so as to sound native-like when they speak a language. In other words, they should have this collocational competence so as to attain linguistic proficiency and their use of language sounds natural and native-like. The EFL learners face challenges in learning collocations because they are treated as multi-word units and not as single words. This lexical relationship between words (i.e. collocation) is said to be arbitrary as it arises more from common usage than from rules (Benson et al., 1986a). Halliday and Hasan (1976) recognized collocation as "the most problematic part of lexical cohesion" (p. 288). Translation scholars (e.g. Newmark, 1988; Baker, 2018) point out that translators face various problems in translating collocations. According to Mounassar (2020), translating collocations is one of the main problems that face translators. Baker (2018) contends that differences in the collocation patterning of the source and target languages can pose challenges to translators. Collocations are a main part of the lexicon of any natural language and so translators should possess a high syntagmatic competence to come up with the appropriate collocations in the TL (Shakir & Farghal, 1992).

Collocation is classified into two major types: (1) grammatical collocation and (2) lexical collocation (Benson et al., 1986b). A grammatical collocation is composed of a content word (verb, noun, adjective) and a preposition or a grammatical structure such as a clause or infinitive, whereas a lexical collocation consists of open-class words or content words (verb, noun, adjective or adverb). The present study is not concerned with the grammatical collocation and is focused on the lexical collocation of two major types as follows:

- (1) adjective + noun (e.g. serious consequences "عواقب وخيمة)
- (2) verb + noun (e.g. wage a war يشن حربًا).

As regards the translation of collocation, a number of studies have been conducted on their translation by EFL learners on different language pairs. Within the Arabic-English context, Shakir and Farghal (1992) compared between both the translation and simultaneous interpreting of Arabic collocations by thirteen M.A. translation students in a Jordanian university. They noted that due to the time factor as well as the students' insufficient interpreting experience, the results revealed that the students translated only 33.2% of the target collocations appropriately in the interpreting session, while they translated 51.8% of them appropriately when they shifted to the translation mode.

Faris and Sahu (2013) dealt with the translation of English collocation into Arabic by EFL students in Iraq. The results of their study showed that 70% of the tested students faced difficulties in translating English collocation into Arabic.

In a similar context, Mahdi and Yasin (2015) examined the notion of collocation and discussed the problems Iraqi EFL students faced when they translated English collocations into Arabic. They concluded that only 33% of students achieved an acceptable level of translation, while the remaining 67% of the students failed to achieve the pass mark.

Focusing on BBC political texts, Shraideh and Mahadin (2015) investigated the most common problems faced by BA and MA students in two Jordanian universities when they translate English collocations in such political texts into Arabic. They also discussed the strategies the students used in their translation of collocation and most of them used literal translation and synonymy as primary strategies in their

In a Saudi context, Jabak et al. (2016) explored the problems faced by Saudi EFL undergraduate students when they translated Arabic collocations into English. The findings of the study revealed that the majority of students could not translate collocations correctly. This was mainly because they adopted literal translation and had very little knowledge of the concept of collocation in both the SL and TL.

In another language pair, Haghighi and Hemmati (2018) discussed the translation of lexical collocation by Iranian EFL students from English into Persian. They pointed out that literal translation was one of the main causes of mistranslation of collocation.

Tackling the grammatical collocation of an open-class word (verb, adjective or noun) + preposition, Al-Jarf (2022) examined the difficulties encountered by Saudi undergraduate student translators in translating such types of collocation. The findings showed that the students mistranslated certain prepositions in the grammatical collocation, where they either used a wrong preposition, added an unnecessary preposition or deleted a necessary preposition.

All the previous attempts have not incorporated the use of MT systems such as Google Translate to see how helpful is MT in assisting EFL translation students to provide accurate equivalents of collocations in Arabic. This is one of the research questions that the current study attempts to answer.

#### 3.4 Translation Procedures

The terms 'translation procedures' and 'translation strategies' are often used interchangeably in translation studies. However, sometimes a strategy refers to the translator's overall orientation towards literal or free translation, while a procedure is defined as a specific method or technique used by the translator at a certain point in a text, e.g. the addition of a footnote in the target text or the borrowing of a word from the source language (Munday, 2012). Vinay and Darbelnet (1958/2000) suggested seven procedures where they distinguished between two general strategies: direct and oblique which corresponds to literal and free methods of translation. Each of these two strategies includes a number of procedures as follows:

- A. Direct translation strategy includes the following procedures:
- 1- Borrowing: this occurs when words are borrowed directly from the SL to the TL.
- 2- Calque: it is a special kind of borrowing through which a language borrows an expression from another language, but then literally translates each of its elements (Munday, 2009).
- 3- Literal translation: it is a word-for-word translation and it is considered the most common strategy between languages belonging to the same family and culture.
- B- Oblique translation strategy includes the following procedures:
- 4- Transposition: This refers to replacing a word class by another word class without altering the meaning of the SL message.
- 5- Modulation: It involves a "variation of the form of the message, obtained by a change in the point of view" (Vinay and Darbelnet, 1958/2000, p. 89).
- 6- Equivalence: This procedure occurs when similar situations are described by different stylistic and structural means.
- 7- Adaptation: This occurs when the type of situation being referred to by the SL message is unknown in the TL culture.

Newmark (1988) elaborated on the translation procedures, and discussed different types of these procedures. This classification of procedures is consistent with that of Vinay and Darbelnet (1958/2000) but is more detailed. He classified translation procedures into fifteen subcategories which are transference; naturalization; functional equivalent; cultural equivalent; descriptive equivalent; synonymy; shifts or transposition; modulation, through translation; recognized translation; compensation; paraphrase; componential analysis; couplets; notes, addition, and glosses.

## 4. Research Methods

The study employed a descriptive, qualitative approach to investigate the problems the students encountered as well as the strategies they used to translate English collocations into Arabic and to what extent online MT systems helped them to provide accurate Arabic equivalents.

## 4.1 Participants

Thirty third-year translation students at an Omani private university voluntarily took part in the current study. The participants, who are native speakers of Arabic, are enrolled in a BA in translation program. The data of the study was collected during Fall 2021-2022. The students took a number of translation courses as part of their BA in translation.

## 4.2 Data Collection

The data collection instrument was designed with the research questions in mind. The general questions, discussed earlier, are related to the knowledge of Arabic collocations among EFL student translators and the role that MT can play in helping these translation students to render English collocations into Arabic. Accordingly, the participants in the study were given 60 minutes to translate twenty English collocations (ten adjective-noun and ten verb-noun) in their contextual sentences into Arabic. The task was restricted to adjective-noun and verb-noun collocations since these two combinations are assumed to be the most common types and also challenging to translate. The students were then asked to translate these English collocations into Arabic, using online MT systems. Most of the students have reported that they made use of Google Translate.

## 4.3 Data Analysis

The problems encountered by Omani EFL students in translating collocations as well as the procedures (strategies) they used in their translation are discussed. The analysis of the data draws on the translation models of Vinay and Darbelnet (1958/2000) and Newmark (1988). They have been discussed in the previous section. Both models are very popular among translation scholars. Therefore, they have been chosen as the theoretical framework for the current study. In addition, the researchers, as translation instructors, translated the collocations and were also validated from the literature. (e.g. Brashi, 2005). Moreover, three of the researchers' colleagues who teach translation were consulted to verify the translation so as to be used as a criterion (gold standard) for evaluating the accuracy of students' responses.

## 5. Results & Discussion

In this section the findings of the study are discussed in light of the relevant literature. First, the problems that students encountered in translating the adjective-noun and verb-noun collocations are discussed. Then the strategies they used in translating these collocations are highlighted.

Table 1. Problems of translation of adjective-noun collocation

Adjective-Noun collocation	Acceptable Arabic translation	N. Of acceptable translations	N. Of unacceptable translations	Students' mistranslations	Problems
a sweet smell	رائحة زكية	7 (23.3%)	23 (76.7%)	رائحة جيدة / رائحة حلوة / رائحة رائعة /	Literal translation
					Omission
a bad smell	رائحة كريهة	23 (76.7%)	7 (23.3%)	رائحة سيئة / ابتسامة مزيفة	Literal translation Mistranslation
a good memory	ذاكرة قوية	8 (26.7%)	22 (73.3%)	ذاكرة جيدة / ذاكرة جميلة /	Literal translation
				ذكريات جميلة	Mistranslation
great imagination	خيال و اسع / خيال خصب	8 (26.7%)	22 (73.3%)	خيال عظيم / خيال رائع / خيال مبهر	Literal translation
serious consequences	عواقب وخيمة	26 (86.7%)	4 (13.3%)	عواقب خطيرة / ظروف قاهرة	Literal translation Mistranslation
a good reason	سبب وجيه	14 (46.7%)	16 (53.3%)	سبب جيد / سبب قوي	Literal translation
a public holiday	عطلة رسمية	21 (70%)	9 (30%)	أجازة عامة / سبب عام	Literal translation Mistranslation
a complete failure	فشل ذريع	15 (50%)	15 (50%)	فشل کامل / فشل محبط	Literal translation Mistranslation
hard evidence	أدلة دامغة / دليل قاطع	20 (67.7%)	10 (32.3%)	دليل قوي / دليل صعب	Literal translation
strong tea	شاي ثقيل	17 (56.7%)	13 (43.3%)	شاي قوي / شاي سادة / 	Literal translation Mistranslation Omission
TOTAL		159/300 (53%)	141/300 (47%)		

It should be made clear that an unacceptable translation is that one where an EFL student translated the English collocation into Arabic incorrectly. It is obvious in Table (1) that the three main problems that students face in rendering English adjective-noun collocations into Arabic, despite making use of online MT systems, are literal translation, mistranslation and omission. Literal translation is the most common problem among all the three translation problems. The collocations that were best translated by most students, as shown in the previous table, are "serious consequences" (86.7%) and "bad smell" (76.7%). On the other hand, the collocations that were translated correctly by the fewest numbers of students are "sweet smell" (23.3%), "good memory" (26.7%) and "great imagination" (26.7%).

Table 2. Problems of translation of verb-noun collocation

Verb-Noun collocation	Acceptable Arabic translation	N. Of acceptable translations	N. Of unacceptable translations	Students' mistranslations	Problems
to break a promise	نقض عهدًا	20 (67.7%)	10 (32.3%)	يكسر الوعد/يقطع الوعد	Literal translation
to make a deal	أبرم اتفاقية	21 (70%)	9 (30%)	قام بصفقة / يقيم اجنماع / 	Literal translation Mistranslation Omission
to violate a law	خالف قانونًا	26 (86.7%)	4 (13.3%)	يخترق القانون / انتهاك العبادة	Literal translation Mistranslation
to suppress rage	كظم غيظًا	8 (26.7%)	22 (73.3%)	قمع غضبه / تمالك غضبه / انفجر غضبا / 	Literal translation  Mistranslation Omission
to do a favour	أسدي معروفًا أو خدمة	25 (83.3%)	5 (16.7%)	يطلب خدمة / يفعل أمر ما لمصلحته / القيام به لصالح	Literal translation
to wage a war	شن حربًا	26 (86.7%)	4 (13.3%)	بدأ حرب / أجرى حرب / أعلن حرب / ينشأ حرب	Literal translation
to exercise caution	توخي الحذر	13 (43%.3)	17 (56.7%)	تدرب بحرص	Mistranslation
to seize an opportunity	اغتنم فرصة / انتهز فرصة	27 (90%)	3 (10%)	حجم الفرصة / عدد من الفرص	Mistranslation
to conduct an experiment	أجرى تجربة	27 (90%)	3 (10%)		Omission
to pass a law	سن قانونًا	13 (43%.3)	17 (56.7%)	ينشئ القانون / يجاوز القانون/ تخطى القانون ينتهك القانون / يقطع القانون	Literal translation Mistranslation
TOTAL	·	206/300 (69%)	94/300 (31%)	·	·

As shown in Table (2), the three main problems that students face in rendering English verb-noun collocations into Arabic are the same problems noted above for translating adjective-noun collocation, i.e., literal translation, mistranslation and omission. Literal translation is also the most common problem among all the three translation problems. The collocations that were best translated by most students, as shown in the previous table, are "seize an opportunity" (90%) and "conduct an experiment" (90%). On the other hand, the verb-noun collocations that were translated correctly by the fewest number of students are "suppress rage" (26.7%), "exercise caution" (43.3%) and "pass a law" (43.3%).

As for the strategies used by students in translating adjective-noun and verb-noun collocations, they are mainly calque, paraphrasing, equivalence, neutralization, mistranslation, and omission, as shown in tables 3 and 4 below. Newmark (1988) defines a paraphrase as an explanation of the meaning of a segment of the text. A calque is the word-for-word or literal translation of an SL collocation. Neutralization occurs when the student could not recall a specific word (verb or adjective) in the TL as in the following two cases. (1) to describe an action and resort to using a generic or neutral verb, e.g. عمل ' فعل ' غلم ب' عمل a generic or neutral adjective, e.g. کبیر "ibig" کبیر "strong" (Brashi, 2005).

Table 3. Examples of strategies used by students in translating adjective-noun collocations

Adjective-Noun collocation	Arabic equivalent	Students' translation	Strategy
a complete failure	فشل ذريع	فشل ذريع	Equivalence
a good memory	ذاكرة قوية	ذاكرة جيدة	Calque
a sweet smell	رائحة زكية	رائحة زكية وطيبة	Paraphrasing
hard evidence	دليل قاطع	دليل ق <i>و ي</i>	Neutralization
serious consequences	عواقب وخيمة	ظروف قاهرة	Mistranslation
strong tea	شاي ثقيل		Omission

Table 4. Examples of strategies used by students in translating verb-noun collocations

Verb-Noun	Arabic equivalent	Students' translation	Strategy
collocation			
to wage a war	شن حربًا	شن حربًا	Equivalence
to break a promise	نقض عهدًا	كسر الوعد	Calque
to break a promise	نقض عهدًا	لم يف بالو عد	Paraphrasing
to make a deal	أبرم اتفاقية	ً قام بصفقة	Neutralization
to exercise caution	توخي الحذر	تدرب بحرص	Mistranslation
to conduct an experiment	أجرى تجربة		Omission

A sample of the unacceptable translation of lexical collocations by Google Translate application is illiustrated in table 5 below, which emphasizes the fact that students should not rely heavily on MT and they should post-edit its output. The following table shows examples for both adjective-noun and verb-noun collocations.

Table 5. A sample of Google Translate output for English lexical collocations

English lexical collocation	Acceptable Arabic translation	Google Translate output
a sweet smell	رائحة زكية	رائحة حلوة
a good memory	ذاكرة قوية	ذاكرة جيدة
strong tea	شاي ثقيل	شاي قوي
to suppress rage	كظم غيظًا	قمع غضبًا
to do a favour	أسدي / معروفًا أو خدمة	فعل معروفا

As can be seen in the table above, the lexical collocations have been literally translated by the MT system. The 20 English collocations have been tested on Google Translate and it was found that for the adjective-noun collocations the system outputted 5/10 (i.e. 50%) correct translations and for the verb-noun collocations the system outputted 7/10 (1.e. 70%) correct translations. This means that the average score for both types of lexical collocation is 60%. This average score of accuracy is nearly the same score for the translations made by the students (61%). Notably, for the translation of each type of collocation both the students and the MT systems have nearly similar scores. So, for adjective-noun collocation, the students scored 53%, while the MT system scored 50%. As regards verb-noun collocation, the students scored 69% whereas the MT system scored 70%. These scores are better illustrated in the following figure.

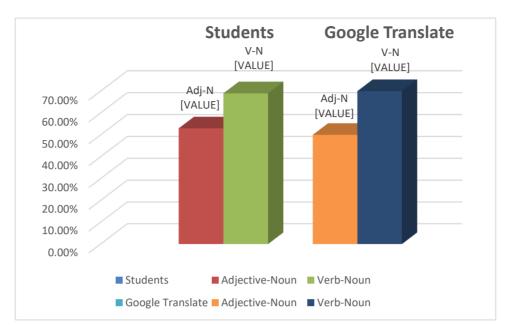


Figure 1. Accuracy scores for translation of lexical collocations by students and Google Translate

As can be observed in the figure above, there are similar scores for the translation made by both students and Google Translate for each type of collocation. However, it is evident that the adjective-noun collocations obtained lower scores than verb-noun collocations for both students and Google Translate.

## 6. Conclusion & Implications

Translators normally encounter the problem of coming up with appropriate collocations in the TL (Hatim and Mason, 1990). The results showed that the student translators faced problems in translating the English collocations into Arabic, despite using MT, (mostly using literal translation). Only 53% could provide correct Arabic collocations for English adjective-noun, while 69% could provide correct collocations for English verb-noun (average score of both is 61%).

Though MT technology is somewhat useful, the students should be taught not to overlook its limitations. Most students reported they made use of Google Translate. The researchers tested the translation of Google and found it outputted only 12/20 (60%) correct collocations in Arabic. Students seem to be aware of the pitfalls associated with the use of MT, but they need structured activities on how to deal with them successfully. Students should know that all MT output may not be accurate to take it for granted and use it. A complete reliance on MT leads to linguistic errors in the target text, especially when the SL and TL are culturally different. So, they should know that post-editing of the MT output is needed to address the translation errors made by such MT systems so as to produce accurate translation.

Teachers should facilitate students' use of MT while monitoring and providing them with proper training. They should provide their students with practical examples about MT errors and how to avoid or correct them in their translation. Teachers should raise students' awareness that translating collocations is not a replacement of word-for-word between the SL and TL.

In addition, one of the major implications for the current study is that translation major students need to enrich their knowledge of collocation in the TL (Arabic in the current context) so that their translation would sound natural and TL reader-friendly.

## Acknowledgments

This study is supported via funding from Prince Sattam bin Abdulaziz University, project number (PSAU/2023/R/1445).

## **Authors contributions**

All authors contributed equally to writing, editing, and proofreading the manuscript.

## **Funding**

This study is supported via funding from Prince Sattam bin Abdulaziz University, project number (PSAU/2023/R/1445).

## **Competing interests**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## **Ethics approval**

The Publication Ethics Committee of the Sciedu Press.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

## Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

## Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

#### Data sharing statement

No additional data are available.

## Open access

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).

#### Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

#### References

- Alhaisoni, E., & Alhaysony, M. (2017). An Investigation of Saudi EFL University Students' Attitudes towards the Use of Google Translate. *International Journal of English Language Education*, 5(1), 72-82. https://doi.org/10.5296/ijele.v5i1.10696
- Alharbi, B. (2023). Use of Google Translate for Translating Scientific Texts: An Investigation with Saudi English-Major Students. *World Journal of English Language*, 13(1), 131-137. https://doi.org/10.5430/wjel.v13n1p131
- Al-Jarf, R. (2022). Undergraduate Student-Translators' Difficulties in Translating English Word + Preposition Collocations to Arabic. *International Journal of Linguistics Studies*, 2(2), 60-72. https://doi.org/10.32996/ijls.2022.2.2.9
- Allen, J. (2003). Post-editing. In H. Somers (Ed.), *Computers and Translation: A translator's guide* (pp. 297-317). Amsterdam, Philadelphia: John Benjamins Publishing Company. https://doi.org/10.1075/btl.35.19all
- Almutawa, F., & Izwaini, S. (2015). Machine Translation in the Arab World: Saudi Arabia as a Case Study. *Trans-Kom, Journal of Translation and Technical Communication Research*, 8(2), 382-414.
- Alqudsi, A., Omar, N., & Shaker, K. (2014). Arabic Machine Translation: A Survey. *Artificial Intelligence Review*, 42(4), 549-572. https://doi.org/10.1007/s10462-012-9351-1
- Alsalem, R. (2019). The Effects of the Use of Google Translate on Translation Students' Learning Outcomes. *AWEJ for Translation & Literary Studies*, *3*(4), 46-60. https://doi.org/10.24093/awejtls/vol3no4.5
- Anggrina, B., Pramudita, K. E., & Suparmi, S. (2017). EFL Learners' Post-editing on Google English-Indonesian Translation Output (pp. 130-137). In Proceedings of the Fifth International Seminar on English Language and Teaching (ISELT-5).
- Arnold, D., Balkan, L., Meijer, S., Humphreys, R. L., & Sadler, L. (1994). *Machine Translation: An Introductory Guide*. Blackwell Publishers, 238 Main St. Cambridge, Mass. 02142. Blackwells-NCC, London.
- Baker, M. (2018). *In other words: A coursebook on translation* (3rd ed.). London: Routledge Taylor & Francis Group. https://doi.org/10.4324/9781315619187
- Baker, M., & Saldanha, G. (2008). *Routledge Encyclopedia of Translation Studies*. London and New York: Routledge. https://doi.org/10.4324/9780203872062
- Benson, M., Benson, E., & Ilson, R. (1986a). *Lexicographic description of English* (Vol. 14). J. Benjamins Publishing Company. https://doi.org/10.1075/slcs.14
- Benson, M., Benson, E., & Ilson, R. (1986b). *The BBI combinatory dictionary of English*. Amsterdam and Philadelphia: John Benjamins. https://doi.org/10.1075/z.bbi1(1st)
- Bin Dahmash, N. (2020). I can't live without google translate: a close look at the use of google translate app by second language learners in Saudi Arabia. *Arab World English Journal (AWEJ)*, 11(3), 226-240. https://doi.org/10.24093/awej/vol11no3.14
- Brashi, A. (2009). Collocability as a problem in L2 production. Reflections on English Language Teaching, 8(1), 21-34.
- Brashi, A. S. (2005). Arabic Collocations: Implications for Translation. Ph.D. Thesis, University of Western Sydney.
- Çakır, İ., & Bayhan, S. (2021). The Effect of Machine Translation on Translation Classes at the Tertiary Level. *Journal of Narrative and Language Studies*, 9(16), 122-134.
- Faris, A. A. & Sahu, R. A. (2013). The Translation of English Collocations into Arabic: Problems and Solutions. *Journal of the College of Arts. University of Basra*, 64, 51-66.

- Forcada, M. L. (2017). Making sense of neural machine translation. Translation Spaces, 6(2), 291–309. https://doi.org/10.1075/ts.6.2.06for
- Ghazala, H. (2008). Translation As Problems and Solutions: A Textbook for University Students Trainee Translators. Special Edition. Dar El-Ilm Lilmalayin.
- Haghighi, H., & Hemmati, F. (2018). A Multifaceted Approach to the Translation of Collocations from English to Persian. *Applied Linguistics Research Journal*, 2(2), 7-21. https://doi.org/10.14744/alrj.2018.03511
- Halliday, M., & Hasan, R. (1976). Cohesion in English. London: Longman.
- Hatim, B., & Mason, I. (1990). Discourse and the Translator. London: Longman.
- Husni, R., & Newman, D. L. (2015). Arabic–English–Arabic Translation Issues and strategies, Routledge. https://doi.org/10.4324/9780203883297
- Hutchins, W., & Somers, H. (1992). An Introduction to Machine Translation. London: Academic Press.
- Jabak, O. O., Abdullah, S. N. S., & Mustapha, N. F. (2016). The Difficulty of Translating Collocations from Arabic into English Encountered by a Sample of Arab Students. *Jurnal Sultan Alauddin Sulaiman Shah*, *3*(1), 266-275. https://doi.org/10.2139/ssrn.3442474
- Johnson, M., Schuster, M., Le, Q. V., Krikun, M., Wu, Y., Chen, Z., ... Dean, J. (2017). Google's Multilingual Neural Machine Translation System: Enabling Zero-Shot Translation. *Transactions of the Association for Computational Linguistics*, 5, 339-351. https://doi.org/10.1162/tacl\_a\_00065
- Jolley, J. R., & Maimone, L. (2015). Free Online Machine Translation: Use and Perceptions by Spanish Students and Instructors. In A. J. Moeller (Ed.), *Learn languages, Explore Cultures, Transform Lives* (pp. 181-200). Minneapolis: 2015 Central States Conference on the Teaching of Foreign Languages.
- Mahdi, A. M., & Yasin, M. S. M. (2015). Translating Collocations from English to Arabic among Iraqi EFL Learners. *English Language and Literature Studies*, 5(3), 57-65. https://doi.org/10.5539/ells.v5n3p57
- Mounassar, A. A. (2020). Strategies of Translating Lexical Collocations in Literary Texts from English into Arabic. *Arts for Linguistic and Literary Studies*, 1(5), 7-34. https://doi.org/10.53286/arts.v1i5.255
- Munday, J. (2009). The Routledge companion to translation studies. Routledge. https://doi.org/10.4324/9780203879450
- Munday, J. (2012). Introducing translation studies: Theories and applications (3rd ed.). New York: Routledge.
- Newmark, P. (1988). A textbook of translation. New York: Prentice Hall.
- Niño, A. (2009). Machine translation in foreign language learning: language learners' and tutors' perceptions of its advantages and disadvantages. *ReCALL*, 21(2), 241-258. https://doi.org/10.1017/S0958344009000172
- Omar, L. I. (2021). The Use and Abuse of Machine Translation in Vocabulary Acquisition among L2 Arabic-Speaking Learners. *Arab World English Journal for Translation & Literary Studies*, 5 (1) 82-98. https://doi.org/10.31235/osf.io/zq8bj
- Palmer, F. (1968). Selected Papers of J. R. Firth 1952-59, Bloomington, IN/London: Indiana University Press.
- Palmer, F. (1979). Semantics. Cambridge: Cambridge University Press.
- Sabtan, Y. M. N. (2020). Teaching Arabic Machine Translation to EFL Student Translators: A Case Study of Omani Translation Undergraduates. *International Journal of English Linguistics*, 10(2), 184-197. https://doi.org/10.5539/ijel.v10n2p184
- Sabtan, Y. M. N., Hussein, M. S. M., Ethelb, H., & Omar, A. (2021). An Evaluation of the Accuracy of the Machine Translation Systems of Social Media Language: Google's Arabic-English Translation as an Example. *International Journal of Advanced Computer Science and Applications* (IJACSA), 12(7), 406-415. https://doi.org/10.14569/IJACSA.2021.0120746
- Shakir, A., & Farghal, M. (1992). Collocations as an Index of L2 Competence in Arabic-English Simultaneous Interpreting & Translation. *FIT-newsletter*, 11(3), 227-245.
- Shraideh, K. W., & Mahadin, R. S. (2015). Difficulties and Strategies in Translating Collocations in BBC Political Texts. *Arab World English Journal* (AWEJ), 6(3), 320-356. https://doi.org/10.24093/awej/vol6no3.21
- Somers, H. (2003). Machine translation: latest developments. In R. Mitkov (Ed.), *The Oxford Handbook of Computational Linguistics* (pp. 512-528), Oxford: Oxford University Press.
- Somers, H., & Diaz, G. F. (2004). Translation Memory vs. Example-based MT: What is the difference? *International Journal of Translation*, 16(2), 5-33.
- Vinay, J. P., & Darbelnet, J. (1958/2000). A methodology for translation. In L. Venuti (Ed.), *The translation studies reader* (pp. 84-93). London: Routledge.
- Wu, Y., Schuster, M., Chen, Z., Le, Q. V., Norouzi, M., Macherey, W., ... Dean, J. (2016). Google's Neural Machine Translation System: Bridging the Gap between Human and Machine Translation. arXiv preprint arXiv:1609.08144, 2016.