Using a Monolingual Textual English Corpus in Translation

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Abstract
The purpose of this study is to examine the effects of using a monolingual English textual corpus on students' translations from Arabic into English with regards to the use of collocations and phrasal verbs. The research questions are: 1) How can the use of a monolingual corpus be introduced to translation students and incorporated into the translation process? 2) How does the use of a monolingual English textual corpus affect the quality of students' translations from Arabic into English regarding collocations and phrasal verbs? The research design used is an action research where an action plan was carried out with year 1 translation students and the instruments used are pre and posttests as well as formative assessment sheets. The group of students were introduced to corpora and their applications in translation, and taught how to use the online Corpus of Contemporary American English to solve translational problems of collocations and phrasal verbs. The analysis of results revealed the extent to which the use of such corpus helped students in improving the quality of their translations. The study highlighted the importance of adopting a corpus-based approach in the translation classroom and the benefits it offers as compared to the traditional approach.
Keywords: collocations, corpus-based approach, Corpus of Contemporary American English, phrasal verbs, traditional translation teaching

1. Introduction

With this increasingly global and multicultural world we live in, translation has been rendered indispensable as both, an actual practice and as a cultural phenomenon to be critically analyzed. However, in recent decades, there has been little progress in the field of teaching in translation studies. The use of corpora in the field of language and translation teaching is not a very new concept. As a discipline, corpus-based translation studies, which saw light in the nineties with translation scholar Mona Baker, really took off in the early twenty first century. Laviosa, (2002) discussed that the discipline was mainly influenced and inspired by corpus linguistics and descriptive translation studies. She describes corpora as a new methodology which helps investigate fundamental issues of translation studies such as the universals of translation, the norms and the intermediate phases of the translation process.

The "literature suggests the utility of corpora for language teaching in such context, but it does not suggest how to adopt this approach in translation training settings" (Singer, 2016, p. 155). The corpus-based approach to translation represented a "new paradigm in translation studies, one that drew on the tools and techniques of monolingual (mainly English) corpus linguistics" (Munday, 2008, p. 180). The rapid advancements in computer systems and information technology made it possible to create electronic corpora of naturally-occurring texts which are texts written for a communicative context and not artificially invented by language researchers. So an electronic English corpus, such as the Corpus of Contemporary English (COCA) or the British National Corpus (BNC), would represent a "database of naturally occurring, natively written texts that provides quality linguistic evidence, particularly on collocations and typical uses of lexical items, vastly superior to the analyst's intuition" (Munday, 2008, p. 180).

In the field of translation and translation pedagogy, many types of corpora could be of help to both professional translators and translation students such as monolingual corpora, comparable bilingual corpora, parallel corpora and DIY (Do-it-yourself) corpora. In particular, when examining the process and product of translations done by university students translating from Arabic into English, a monolingual textual English corpus may be of great use to students on many levels. It could be used to address some of the main problems faced by students in their translations into a foreign language as it provides real-life evidence from native speakers of English. So, properly introducing translation students to corpora and how to use a corpus for translation purposes might, to some extent, help many of them in overcoming some linguistic issues affecting the fluency and nativity of a translated text such as the use of collocations and phrasal verbs, especially since such "choice of words in the translation process is not obsolete, it is governed by rules and specifications to maintain linguistic and semantic cohesion and coherence" (محمد، 2010). This might help them achieve a competent level of language proficiency that will help them better prepare themselves for a translation career, which is of utmost importance especially when taking into account that some translation schools, particularly in the Arab world, admit translation students with a below average level in languages, thus making it hard for such students to excel in translation as a profession.

This reality perhaps highly correlates with the fact that translation as an act differs from one person to another and from one language combination to another. The challenges faced by translators differ depending on the nature of the text, the origin of the language, the purpose behind the translation, the socio-cultural differences between languages and much more.

2. Problem statement

Observations show that when translating from Arabic into English, translation students tend to stick to the source text and the structure of the Arabic language for two reasons: the first being the ambiguity of how to use translation techniques or how to apply translation theory to their practice and the second being their lack of dexterity and fluency in the English (target) language. As such, the produced translations are either categorized as mistranslations due to the student's inability to convey the meaning of the Arabic text in English or as poorly articulated translations due to the student's inability to express him or herself fluently and natively in English.

With the technological developments that have affected various fields of education including translation teaching in the 21st century, "the use of computers changed the translation process through the appearance of useful translator tools including translation memories, terminology databases, translation management programs, electronic corpora and so forth" (Kokturk & Odacıoglu, 2015, p. 1085).

These tools represent what is called or Computer-Assisted Translation (CAT). Despite the fact that they have increased productivity, supported international communication, and demonstrated the growing need for innovative technological solutions to the age-old problem of the language barrier, their main importance lies basically in providing terminology or phraseology translations not full translations. However, when translating into a foreign language such as English, most students fail to use the term in its correct form or order in sentence structure. Thus, in Arabic into English translations, students produce less fluent and acceptable translations and the most prominent errors they make are those related to the use of collocations, prepositions and phrasal verbs in the English language. Translation linguists or instructors note that most difficulties in translation from Arabic into English are regarding word choice or terminology and sentence structure. In his book "Translation Principles from English into Arabic and Vice Versa", Najib , (2005) says: "these two difficulties are interrelated and highly correlate with one another, and must thus be examined or discussed together" (p.24). For instance, an error made in choosing the correct collocate or preposition in turn affects the sentence structure as most words in a sentence occur in the company of other words. "Words are not strung together at random in any language; there are always restrictions on the way they can be combined to convey meaning" (Baker, 1992, p. 46).

In this research paper, the use of corpora in translation classrooms will be examined, namely in an Arabic to English linguistic combination, by introducing a native English monolingual corpus (COCA) to students so as to utilize such a corpus in strengthening their English on the levels of the use of collocations and phrasal verbs. The study aims at analyzing the effect that such an approach has on translation learners as compared to the more traditional aspects of translation pedagogy

1) How can the use of a monolingual corpus be introduced to translation students and incorporated into the translation process?
2) How does the use of a monolingual English textual corpus affect the quality of students' translations from Arabic into English regarding collocations and phrasal verbs?

3. Research methods

This research is an action research. The purpose of action research is to influence teachers' actions, activities, and beliefs. Reason and Bradbury (2006) describe action research as an approach which is used in designing studies which seek both to inform and influence practice. It is a systematic and intentional inquiry carried out by teachers as defined by Ferrance (2000) as a means to build teachers' reflective capabilities in ways that can help improve some specific aspect of educational practice and school settings.

The research population are the translation students in a private university in Lebanon and the sample are first year sophomore translation students.

4. The Suggested Course Plan for use COCA corpus in the classroom

The idea of using the online textual corpus COCA in translation emanated from the need to introduce new strategies in teaching translation to solve the old-age translational problems in Arabic- English translation.

Diagnosis

Diagnosis refers to the initial assessment of the teaching and learning situations. In this stage, it is attempted to define the students' present state of knowledge, skills, competencies and their needs regarding translation, as a basis to target what is missing and trying to cover it. This was carried out through pretest.

Aims of the corpus in the translation course

The COCA corpus is introduced as part of a general Arabic into English translation course. As such, the course aims at introducing key translation issues through practice by exposing students to the translation of various topics and texts. To fulfill the aims of the study, special emphasis is placed on building student's skills in translating collocations and phrasal verbs through using the suggested corpus.

Course Plan and Timetable

The implementation of the COCA corpus in the sample classroom is conducted over a period of around eight weeks with two and a half instruction hours per week. The corpus and corpus concordances are introduced to the students which include the definition, description, uses and applications as well as its importance in translation. The COCA tags and queries are explained to students as well as the steps of corpus investigation. Corpus-based activities and exercises are also carried out. This material is followed as per the initial course syllabus with only the difference of introducing the corpus and translating with the help of this corpus especially regarding the translation of collocations and phrasal verbs. The detailed lesson plan is shown in Appendix herein.

5. COCA Corpus Basics and Techniques

Definition

The Corpus of Contemporary American English, as defined on the COCA website of Brigham Young University (BYU), is the largest freely-available corpus of English, and the only large and balanced corpus of American English. The corpus contains more than 520 million words of text (20 million words each year 1990-2015) and it is equally divided among spoken, fiction, popular magazines, newspapers, and academic texts. It offers a range of queries and allows you to compare between genres and years, which also allows you to create personalized collections of texts related to a particular area of interest.

Applications

The corpus interface enables students to work on the English language in several ways. They can search by word, phrase, part of speech (e.g. adjectives, prepositions) and lemma (e.g. all forms of be: am, are, were, and being) (Edna & Bernie, 2006). They can also find and compare synonyms of a given word, find words that collocate (group together and used side by side), explore the usage (context, genre, collocates) of a word/expression, compare the use of words and their collocates across time periods and genres, find words that stem from a specific word, i.e. word families and others (Edna & Bernie, 2006).

Steps of Corpus Investigation

Throughout the course, the focus is directed towards the four principle steps of corpus investigation which are: first, formulating the question or search query which derives naturally from the translation aim or sentence the students are dealing with. Second, devising a search strategy which entails creating a search string and adjusting the search options that best work to extract the essential information from the corpus. Third, observing the examples so as to discriminate between the relevant and the irrelevant ones. Fourth, drawing conclusions based on sound evidence and logic as well as critical thinking (Edna & Bernie, 2006).

Course Evaluation

A formative evaluation was used to measure the progress throughout the course by class activities, individual tasks, pair work and group work activities that all aim at assessing the students' translations on one hand and their use of the corpus on the other hand. The summative evaluation was done in a post test.

6. The Pre and Post Tests

Descriptions

The Arabic collocations and phrasal verbs chosen for both tests are based on Brashi's (2005) list of Arabic collocations. Each of the tests consists of 60 relatively short Arabic sentences. They both contain the same number of collocations and phrasal verbs divided into two groups: the first 40 sentences contain collocations of different types and the remaining 20 sentences contain phrasal verbs. The types of collocations include the most common types used which are as follows: the first ten sentences contain verb + noun collocations (V + N), the second ten sentences contain

adjective + noun collocations (Adj + N), the third ten contain noun + noun collocations (N + N) while the last ten contain prepositional collocations (Prep).

Evaluation Criteria of Students' Performance in the tests
    To evaluate the students' performance in translation, a specific set of criteria are chosen for each part.

For Collocations
        Six different translation outcomes or strategies are accounted for as follows:
Strong collocation indicates that the translation into English resulted in word pairings that are highly expected to come together in native English. Herein, it also represents the collocations that have the highest or second highest frequency according to the Corpus of Contemporary American English. (Brashi, 2005).
Semi collocation refers to the collocations that include word pairings that seem familiar to the native speaker, but also have a lower frequency in usage or occurrence according to the COCA corpus.
Paraphrasing in the translations herein, it refers to a translation outcome that might either not include a collocation as in the source sentence, i.e. the translator might translate a certain collocation by giving its meaning rather than giving an equivalent collocation, or an outcome that might include rephrasing the sentence using a non-equivalent collocation to give the meaning.
Unacceptable collocation indicates that the source collocation is translated into English using a word pairing that does not occur in native English or that seems unfamiliar when it occurs with other words.
Omission indicates that either no translation is offered by the student or an incomplete translation is given in which the student omits part of the sentence and leaves it with no equivalent translation.
Mistranslation refers to a translation outcome that gives an incorrect translation of the source language collocation which, to some extent, affects the meaning communicated behind the sentence.
For Phrasal Verbs
Acceptable phrasal verb refers to a translation that includes an equivalent phrasal verb that is commonly used in English and whose two segments highly occur with one another in specific context according to the Corpus.
Unacceptable phrasal verb indicates a translation in which the student gives a phrasal verb that either isn't used usually in the context it appeared in, or a verb that is used with the incorrect preposition or adverb, thus resulting in an incorrect phrasal verb.
Encapsulation in linguistics refers to an "expression in one language that could be represented by a single lexeme with roughly the same meaning" (Brashi, 2005, p. 211). In this study, it indicates a translation in which the student gives a one-word equivalent to the phrasal verb (which consists of two words). The word given simply replaces the phrasal verb, but does not greatly differ from the source sentence in other aspects.
As for **paraphrasing**, it refers to a translation outcome in which the translator greatly changes the wording or phrasing of the sentence to give the meaning by explaining the source sentence using

different words that might not include a phrasal verb or might include one that is accepted but not equivalent to the source phrasal verb.

Omission indicates that either no translation is offered by the student or an incomplete translation is given in which the student omits part of the sentence and leaves it with no equivalent translation.

Mistranslation refers to a translation outcome that gives an incorrect translation of the source language phrasal verb which, to some extent, affects the meaning communicated behind the sentence.

7. Results of the Pre and Post Translation Tests

Results of the Pre Test

Tables 1 and 2 in the appendix demonstrate the different results of the students' attempts to translate the Arabic sentences into English at the beginning of the course. Table 1 presents the results of students' translations of collocations (the first forty sentences), while Table 2 presents the results of students' translation of phrasal verbs (the last twenty sentences).

Results of the Post Test

Tables 3 and 4 demonstrate the different results of the students' attempts to translate the Arabic sentences into English at the end of the course. Table 3 presents the results of students' translations of collocations (the first forty sentences), while Table 4 presents the results of students' translation of phrasal verbs (the last twenty sentences).

Translation outcomes of Collocations

To facilitate the analysis and comparison of the results, the total frequencies of translation outcomes for collocations in both the pre and post tests are presented in figure1.
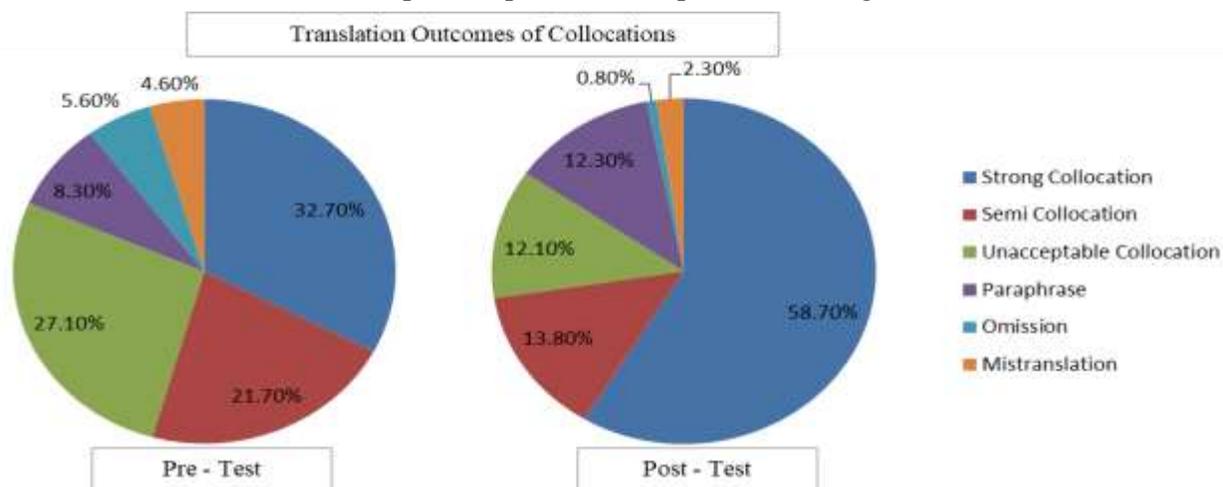
Figure 1 Changes in the frequency of translation outcomes of collocations between the pre-test and post-test

Strong Collocation

In translating the Arabic collocations into English, this outcome scored a frequency of 32.7% in the pretest and 58.7% in the post test; this percentage is the highest in both tests. This also shows that the students were able to give more renditions of strong collocations after the use of the monolingual corpus. Producing a strong collocation in the target language indicates that the students know the best equivalent target collocation for the source collocation. The increase in this percentage after the application of the corpus indicates that such a tool might have helped students in choosing and applying the best equivalent.

Examples of outcomes of strong collocations from both tests are presented in tables 5 and 6.

Table 5
Examples of strong collocation outcomes in the Pretest

Source Language Collocation	Strong Collocation Provided
اقترف خطأ	made a mistake
أفشى سرًّا	revealed a secret
أوامر صارمة	strict orders
واقع مرير	bitter reality
سؤال وجيه	good question
الإقلاع عن التدخين	quit smoking
سرب من الطيور	flock of birds
إرساء السلام	make peace
حق التصويت	right to vote
محطة إذاعية	radio station
بنود وشروط	terms and conditions
التقيد بـ	compliance with
الأخذ في الاعتبار	take into consideration
راضيًا عن	satisfied with

Table 6
Examples of strong collocation outcomes in the Posttest

Source Language Collocation	Strong Collocation Provided
كتم السر	kept the secret
امتطى الحصان	rode the horse
أشعل حريقًا	started a fire
بذل جهدًا	made an effort
رياح عاتية	strong wind
مجلس الإدارة	board of directors
البريد السريع	express mail
حزام الأمان	seat belt
باقة من الورود	bouquet of flowers
عضو في اللجنة	member of the committee
في اليوم المحدد	on the specified day

The tables 5 and 6 show some examples of the strong collocations provided by students, but it must be noted that not all the students gave the strong collocation for the mentioned source ones. A comparison between the results shown for the pre and posttests reveals that in the pretest, no sentences yielded 12/12 strong collocation outcomes. However, in the post test, all students provided strong collocations for six different sentences. This can be attributed to the fact that the use of the corpus helps provide the students with decisive results for choosing the best translation. For example, in the translation of the collocation "حزام الأمان", all students wrote seat belt when they could have also used safety belt as an alternative. However, a quick query on COCA about the frequency of occurrences between seat and safety belt, informs the students that the former is more widely used compared with the latter.

Semi Collocation
    The frequency of this outcome amounted to 21.7% in the pretest and 13.8% in the post test. The decrease in the percentage of semi collocations could probably be attributed to the increase witnessed in strong collocations. As previously mentioned, the corpus helps students clear any indecisiveness or doubt when it comes to which collocation they should choose.
Examples of outcomes of semi collocations of different types from the pre and post tests are presented in tables 7 and 8.

Table 7
Examples of semi collocation outcomes in the pre test

Source Language Collocation	Semi Collocation Provided
استلّ سيفًا	pulled out a sword
ألقى خطابًا	delivered a speech
سنّ قانونًا	issued a law
خطأ فادح	huge mistake
راضيًا عن	satisfied in

Table 8
Examples of semi collocation outcomes in the post test

Source Language Collocation	Semi Collocation Provided
سلاح فتّاك	lethal weapon
بحر هائج	rough sea
رائحة كريهة	awful smell
مخالفة سرعة	speed violation
باقة من الورود	bunch of flowers

The examples given in the above tables show the use of semi collocations. A look at such collocations indicates that most of their occurrences result from the students' own knowledge of word pairings. There are indeed several words that might collocate with a certain verb or noun; but, the frequency of some exceeds that of the other options. This makes way for their classification as semi collocations. It must be noted that these collocations generally give an acceptable translation even if not the best collocation equivalent is used.

Unacceptable Collocations

In translating the collocations, the outcome of unacceptable collocations was relatively high in the pretest as it accounted for 27.1%. As for the post test, this outcome amounted to 12.1% which indicates a significant improvement in the quality of translations. Examples of this type of outcome are shown in the tables 9 and 10.

Table 9
Examples of unacceptable collocation outcomes in the pre test

Source Language Collocation	Unacceptable Collocation Provided
يقود دراجة	drive a bicycle
سرب من الطيور	swarm of birds
شنّ حربًا على	conflict war on
استلّ سيفًا	yanked a sword
راضيًا عن	satisfied about

Table 10
Examples of unacceptable collocation outcomes in the post test

Source Language Collocation	Unacceptable Collocation Provided
فقر مدقع	wretched poverty
امتطى الحصان	remount the horse
هوية مزورة	wrong identity card
مجلس الإدارة	business management board
ألحق ضررًا	lead to be damaged

These examples of unacceptable collocations show unfamiliar word pairings in the target language. For example, in English, the verb ride collocates with the noun bicycle while drive collocates with car.

Paraphrased Collocations

The percentage of paraphrased collocations in the pre translation test reached 8.3%, while that of the posttest reached 12.3%. Paraphrasing a source language collocation is used as a strategy to overcome the shortage of strong target collocations. However, this is not always the case for students since most of time they resort to paraphrasing when they can't seem to come up with a strong collocation or don't find an accurate result using the corpus or even when they find it hard to express their idea following the same source structure. Examples of such cases from the students' translations in the tests are found in tables 11 and 12.

Table 11
Examples of paraphrased outcomes in the pre test

Source Language Collocation	Paraphrase Provided
لعب الأولاد في الهواء الطلق	The children went outside to play
كان المريض في حاجة ماسة للدواء	The patient needed the medicine desperately
منحته اللجنة حق التصويت	The committee allowed him to vote
اعتذر عن الوصول متأخرًا	He apologized because he was late

Table 12
Examples of paraphrased outcomes in the post test

Source Language Collocation	Paraphrase Provided
أسدى إليه معروفًا	He helped him out
كان المدير في مزاج حاد	The manager was angry
ساعدني أخي في أوقات الشدة	My brother helped me when I needed him
حصل على مخالفة سرعة أثناء القيادة	He violated the speed limit while driving
وصل البريد في الوقت المحدد	The mail arrived in time

In this regard, it must be noted that after evaluating the students' posttest translations and inquiring about their choices in translation, most students said that the reason behind paraphrasing is that they could not recall at the time a better translation option on one hand, and they could not find the exact collocation using the corpus. This represents one of the downsides when it comes to using a corpus. In order to get accurate answers, you must input accurate queries, or else the results will not be satisfying. Since corpus queries are guided by specific rules and syntax as previously mentioned, not all students get the hang of it quickly. Some need more time and practice than others to have better command of the tool.

Omission and Mistranslation
Another observed translation outcome is omission. This outcome scored a low frequency of 5.6% in the pretest and 0.8% in the post test.

As for mistranslations, they scored a frequency of 4.6% in the pretest and 2.3% in the post test. The following examples in tables 13 and 14 show how students changed the meanings of the source collocations.

Table 13
Examples of mistranslations in the pre test

Source Language Collocation	Mistranslation
يقود الدراجة	driving the car
سؤال وجيه	notable question
محطة إذاعية	television channel
عند تقاطع طرق	in the middle of the road

Table 14
Examples of mistranslations in the post test

Source Language Collocation	Mistranslation
أسدى إليه معروفًا	acted in a good way towards him
خاض معركة	faced struggles
غاص في البحر	drowned in the sea

In each of the examples above, the meaning of the source collocation was distorted in one way or another. In some cases, the meaning of the verb was changed such as غاص في البحر was translated *drowned in the sea* (غرق في البحر). In other cases, the meaning of the noun was changed such as محطة إذاعية was translated into television channel (محطة تلفاز).

Translation outcomes of Phrasal Verbs

To facilitate the analysis and comparison of the results, the total frequencies of translation outcomes for collocations in both the pre and post tests are presented in figure 2 .
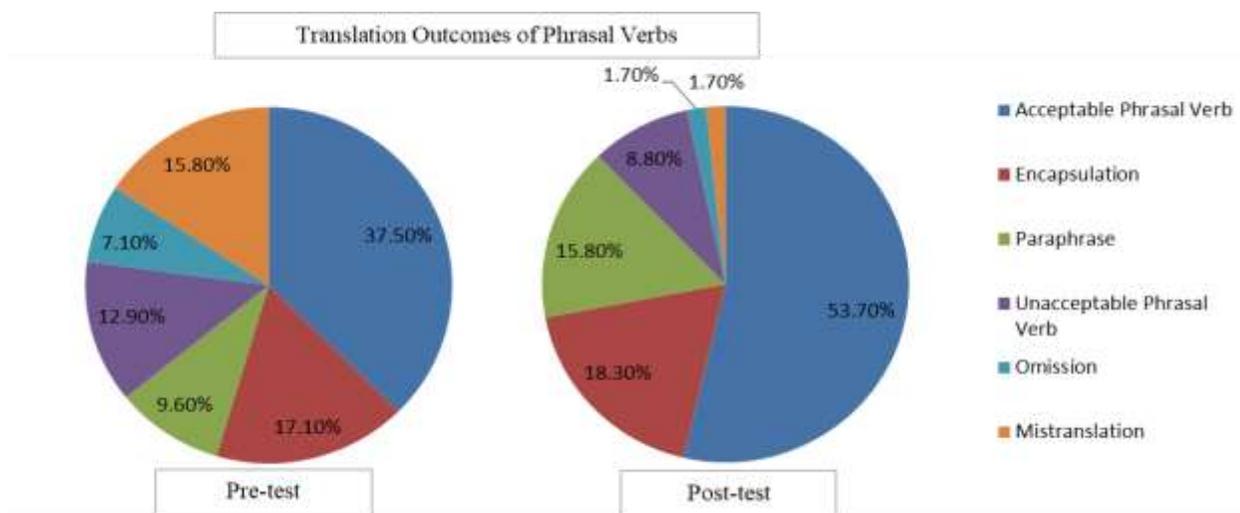
Figure 2 **Changes in the frequency of translation outcomes of phrasal verbs between the pre-test and the post-test**

Acceptable Phrasal Verb

In translating the Arabic phrasal verbs into English, this outcome scored a frequency of 37.5% in the pretest and 53.7% in the post test; this percentage is the highest in both tests. This result shows that the students were able to give more renditions of acceptable phrasal verbs after the use of the monolingual corpus. Examples of outcomes of acceptable phrasal verbs from the pre and post tests are presented in tables 15 and 16.

Table 15
Examples of acceptable phrasal verbs in the pre test

Source Language Phrasal Verb	Acceptable Phrasal Verb Provided
شدد على	stress on
يبقى بعيدًا من	stay away from
هرب من	ran away from
ترجّل من السيارة	walked out of
تعطلت السيارة	break down
تنازل عن حقوقه	gave up his right
يحذر من	warn of
غضب من	angry at
طلب المساعدة من	ask for help from

Table 16
Examples of acceptable phrasal verbs in the post test

Source Language Phrasal Verb	Acceptable Phrasal Verb Provided
اقتحم المنزل	broke into
يخاف من	scared/ afraid of
يسعى إلى	seeks to
يدعو إلى	calls for
شطّب اسمه من اللائحة	crossed out his name from
يعتمد على	rely on
توصل إلى حل	came up with
نزل من	came down from
احتج على	protest against

A comparison between the results shown for the pre and posttests reveals that in the pretest, no sentences yielded 12/12 acceptable phrasal verb outcomes. However, in the post test, all students provided acceptable phrasal verbs for three different sentences. This result, similar to that of strong collocations, can be attributed to the fact that the use of the corpus helps provide the students with decisive results for the translation.

Encapsulation

Students who resorted to this outcome encapsulated the phrasal verb consisting of a verb with a preposition, an adverb or both, into a single verb in English. The frequency of this outcome was 17.1% in the pretest and 18.3% in the post test. Tables 17 & 18 show examples of outcomes of encapsulation.

Table 17
Examples of encapsulation in the pre test

Source Language Phrasal Verb	Encapsulation
شدد على	Emphasized
رحل بعيدًا	Left
بحث في الأمر	researched the matter

Table 18
Examples of encapsulation in the post test

Source Language Phrasal Verb	Encapsulation
توصل إلى حل للمشكلة	solved the problem
شطب اسمه من اللائحة	removed his name
يخاف من	fears
ألقى نظرة على	Examined

Encapsulation was possible with only a few numbers of examples. It is not possible to render all phrasal verbs into a single verb in English. This outcome shows that translators do not

have to follow the phrasal verb word for word. Alternatively, they can resort to encapsulation as long as the meaning is not affected.

Unacceptable Phrasal Verbs

In translating the phrasal verbs, the outcome of unacceptable phrasal verbs accounted for 12.9% in the pretest and 8.8% in the post test. This indicates an improvement in the quality of translations. Examples of this type of outcome are shown tables 19 and 20.

Table 19
Examples of unacceptable phrasal verbs in the pre test

Source Language Phrasal Verb	Unacceptable Phrasal Verb Provided
غضب من	angry from
رجع عن رأيه	retreated on
ترجّل من	got down from
تنازل عن	offered up
شدد على	insisted on
ملأ المسبح بالماء	filled in

Table 20
Examples of unacceptable phrasal verbs in the post test

Source Language Phrasal Verb	Unacceptable Phrasal Verb Provided
ألقى نظرة على	have a look on
نزل من	descended from

These examples of unacceptable phrasal verbs result from either the use of an incorrect preposition or an incorrect verb. An example of incorrect preposition is using *filled in* instead of *filled with*, *angry from* instead of *angry at* and *have a look on* instead of *have a look at*. As for the use of incorrect verbs, this is illustrated in using *retreated on* instead of *backed down* and *insisted on* instead of *stressed on*.

Paraphrased Phrasal Verbs

The percentage of paraphrased phrasal verbs in the pre translation test reached 9.6%, while that of the posttest reached 15.8%. In students' translations, paraphrasing is used when they can't seem to come up with an equivalent phrasal verb. Examples of such cases from the students' translations in the tests are found in tables 21 and 22.

Table 21
Examples of paraphrased outcomes in the pre test

Source Language Phrasal Verb	Paraphrase Provided
رجع عن رأيه	He changed his mind
طلب المساعدة من أصدقائه	He told his friends to help him
يهدف البرنامج إلى توفير الخدمات	The aim of the program is to provide services

Table 22
Examples of paraphrased outcomes in the post test

Source Language Phrasal Verb	Paraphrase Provided
اقتحم اللص المنزل	The thief entered the house to steal
يسعى إلى إيجاد عمل	Works hard to find a job
يبحث عن الحقيقة	He wanted to find the truth

Although used as one of the translation outcomes, paraphrasing a source language phrasal verb in translation does not always make comprehension easy, nor does it facilitate production of the target text because it sometimes complicates sentence structure to a point where the student may have to use more words than in the source language to express the same concept in the target language.

Omission and Mistranslation

As in the translation of collocations, omission was also observed in the students' translations. This outcome scored a low frequency of 7.1% in the pretest and 1.7% in the post test.

As for mistranslations, they scored a frequency of 15.8% in the pretest and 2.3% in the post test. Tables 23 and 24 give examples of students' mistranslations.

Table 23
Examples of mistranslations in the pre test

Source Language Phrasal Verb	Mistranslation
يحذر العلماء من الاحتباس الحراري	Scientists are aware of global warming
تنازل عن حقوقه	He refused his rights
شدد على أهمية التواصل	He ensured the importance of communication

Table 24
Examples of mistranslations in the post test

Source Language Phrasal Verb	Mistranslation
اعتمد على زميله في العمل	He made his colleague do his work
احتج الناس على فساد الحكومة	The people protested for the government's corruption

In each of the examples above, the meaning of the source collocation was distorted in one way or another. In some cases, the meaning of the verb was changed such as using *refuse* for تنازل In other cases, the change of preposition affected the meaning of the phrasal verb such as in translating احتج على/to *protest for*, which means the opposite of protest against.

8. Summary of results

Table 25 below presents a summary of the results of the first part of the Arabic translation test into English which consisted of the different types of collocations.

Table 25
Comparison between Pre Test and Post Test acceptable and unacceptable translation outcomes of Arabic collocations into English

Acceptable Translation Outcomes		Unacceptable Translation Outcomes	
Pre Test	**Post Test**	**Pre Test**	**Post Test**
Strong collocation 32.7%	Strong collocation 58.7%	Unacceptable Collocation 27.1%	Unacceptable Collocation 12.1%
Semi collocation 21.7%	Semi collocation 13.8%	Omission 5.6%	Omission 0.8%
Paraphrase 8.3%	Paraphrase 12.3%	Mistranslation 4.6%	Mistranslation 2.3%
Total 62.7%	**Total 84.8%**	**Total 37.3%**	**Total 15.2%**

The inspection of the results shows that in both the pre and posttests the percentages of acceptable translation outcomes of collocations were higher than those of the unacceptable translation outcomes. Moreover, a comparison of the pre and post test results indicates that there is a significant difference in the group's results before and after the implementation of the corpus as this difference amounts to 22.1% in positive (84.8% - 62.7%) for the acceptable translation outcomes and 22.1% in negative (15.2% - 37.3%) for the unacceptable outcomes.

Table (26) below presents a summary of the results of the second part of the Arabic translation test into English which consisted of the phrasal verbs.

Table 26
Comparison between Pre Test and Post Test acceptable and unacceptable translation outcomes of Arabic phrasal verbs into English

Acceptable Translation Outcomes		Unacceptable Translation Outcomes	
Pre Test	**Post Test**	**Pre Test**	**Post Test**
Acceptable Phrasal Verb 37.5%	Acceptable Phrasal Verb 53.7%	Unacceptable Phrasal Verb 12.9%	Unacceptable Phrasal Verb 8.8%
Encapsulation 17.1%	Encapsulation 18.3%	Omission 7.1%	Omission 1.7%
Paraphrase 9.6%	Paraphrase 15.8%	Mistranslation 15.8%	Mistranslation 1.7%
Total 64.2%	**Total 87.8%**	**Total 35.8%**	**Total 12.2%**

As for The inspection of the results shows that in both the pre and posttests the percentages of acceptable translation outcomes of collocations were higher than those of the unacceptable translation outcomes. Upon comparing the pre and post test results, a significant difference is revealed before and after the implementation of the corpus. The difference amounts to 23.6% in positive (87.8% -64.2%) for the acceptable translation outcomes and 23.6% in negative (35.8% - 12.2%) for the unacceptable outcomes. This shows that there is a good impact of the use of the corpus regarding the translation of phrasal verbs from Arabic into English.

9. Conclusion

The traditional approaches to translation teaching are very common in the field of translation teaching in Lebanon, despite the modernization of such approaches and methods to improve the aspects of translation pedagogy. The main purpose was to examine the impact of the suggested COCA corpus on the quality of students' translation of Arabic collocations and phrasal verbs into English. The results of the study indicated the use of the corpus had a significant impact on students' translations.

This impact on the students' performance in translation may be due to various activities and techniques provided by the corpus. The introduction and implementation of the use of the said corpus also affected the students' motivation in class and in the translation process as they are seldom taught how to use CAT tools in translation. This represented a new aspect of translation pedagogy to the students and helped in transforming the class environment into a more process-oriented one which, in turn, reflected positively on the students' attitudes towards learning translation.

10. Implications for Translation

The present study suggests a number of implications for translating collocations and phrasal verbs that could generally be applied.

1. Translators, whether students or professionals, must keep in mind that the ability to identify collocations and phrasal verbs in the source text is of utmost importance to give a sound rendition of the sentence or text.
2. Translators should be aware of the different acceptable and unacceptable outcomes of translating collocations and phrasal verbs so as to employ the former and avoid the latter.
3. Translators should try to expand their knowledge on collocation and phrasal verb differences between the languages they translate to and from. This can be achieved by increasing their contact with the proper native uses of language such as listening, reading or analyzing natively occurring speeches and texts as those, for example, provided by most monolingual corpora.
4. Translators should also determine which tools could most benefit them in translating collocations and phrasal verbs whether dictionaries, software, applications or CAT tools. This could be based on the research conducted in this field and on the translator's preference in using CAT tools while keeping in mind that various tools and strategies may be implemented to help overcome the same translation problem.
5. Translators must be open to the use of new technologies in the field of translation. In this world of fast-changing technology, it is imperative to keep abreast of all technological tools and advancements in the field of translation practice and the translation market.

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Appendix A
Content and Timetable of the suggested corpus-based course

General Remarks:
- Each week includes around two and a half hours of instruction.
- Throughout the course, translation techniques are highlighted based on the texts to be translated and the results given by the corpus.
- Exercises and activities vary from individual tasks to pair work and group work as needed.
- Note that the textual materials used in class (to be translated) are texts and paragraphs that are previously set as course files by the translation department in the university.

Week	Objectives	Material
1	-Brief overview of course -Recap on main translation techniques students have learned from previous courses -Recap on collocations and phrasal verbs	-Translation exercises, pair work -Activities and examples

2	-Introduction to corpora
	    Definition
	    Description
	    Types
	    Uses
	    Applications
	    Concordances
	    Importance in translation
		-Examples and applications of corpora
		-Available online corpora
		-Instructional Aid: LCD Projector and computers

3	-Introduction to COCA Corpus of Contemporary American English -Recap previous based on COCA -Explanation of interface -COCA concordance -COCA tags and abbreviations used -Importance in use of collocations and phrasal verbs -Simple search queries and results	-COCA corpus -Short exercises -Instructional Aid: LCD Projector and computers
4	-Steps of Corpus Investigation -Formulating search queries based on material to be translated -Devising search strategies and search strings -Observing examples	-COCA corpus -Translation exercises -Instructional Aid: LCD Projector and computers
5	-Practice on search queries and strings -Employ critical thinking to analyze results -How to discriminate between relevant and irrelevant results based on content -Reach satisfying conclusions for queries	-COCA Corpus -Exercises and activities -Instructional Aid: LCD Projector and computers
6	-Individual class assignment on translating sentences with the corpus tool -Evaluation of assignment through group corrections, class discussions and examples	-Assignment -COCA corpus -Instructional Aid: LCD Projector and computers

| 7 | -Translation exercises (paragraphs)
-Learn how to detect a corpus-suitable query while translating
-Validate query and results | -Translation exercises (paragraphs)
-COCA corpus
-Instructional Aid: LCD Projector and computers |
| 8 | -Translation exercises (paragraphs)
-Using alternative results based on corpus queries
-Independent search queries and critical thinking for optimal benefit in using corpus
-Recap | -Translation exercises and activities
-COCA corpus
-Instructional Aid: LCD Projector and computers |

Appendix B
Detailed material used to introduce the use of the COCA Corpus:
To teach students how to use the corpus, several material and reference documents were used:
- Using COCA and Word and Phrase Academic for teaching and learning Academic English/ Mark Davies – Brigham Young University - http://www.litaka.lt/file/Mark_Davies_Lithuania_131004.pdf
- Teaching Through Data Driven Learning – Erin M. Shaw – Brigham Young University 2011
- Teaching writing with the aid of COCA – Monica Sobejko – 2013 - https://eflnotes.wordpress.com/2013/10/02/teaching-writing-with-the-aid-of-coca-guest-post-by-monika-sobejko/
- Using COCA to Foster Students' Use of English Collocations in Academic Writing – Mansour, Deena Mohammad (The American University in Cairo, Egypt) - http://www.headconf.org/wp-content/uploads/pdfs/5301.pdf
The following material was used throughout the course to teach students the basics of how to use COCA corpus with a focus on collocations and phrasal verbs. In presenting the material, the instructor relied on the abovementioned sources. Other examples on COCA queries presented herein were done by the instructor herself.
Collocates Search on COCA (based on Mansour, D.M):
COCA search options give users multiple chances to check different types of collocations. The most common collocations that are usually looked up: verb-noun collocations, adjective-noun collocations, adverb-verb collocations, verb-preposition collocations, and adverb-adjective collocations. The suggested search strings in the present paper raised the translation students' awareness of their errors and helped them correct these errors and find accurate collocations when they translate texts from Arabic into English.
There are two ways of conducting collocate searches on COCA: either to use the default list option or to use the collocates option to limit the results. The table below illustrates possible search strings that can be conducted to check different types of collocations using the collocates option and the (POS) list which is available in the search engine on the corpus to specify the part of speech that will be looked up.

Collocation	Search String	Examples
verb-noun	[verb].[nn] ex. conduct_nn*	(conduct) research/ investigations/ interviews
adjective-noun	[adjective].[nn] ex. _j* results	current/preliminary/ significant (results) important/ profound/ long-term (implications)
Adverb-verb	[adverb].[v] ex. _r* update	regulary/ constantly/ peri-odically (update) critically/ carefully/ properly (evaluate)
Adverb-adjective	[adverb].[j] ex. _r* significant	statistically/particularly/potentially (significant) perfectly/ barely/minimally (adequate)
Verb-preposition	[verb].[prep] ex. rise _i*	(rise) to/in/from (express) in/about/to

The search mechanisms and search strings proposed in the current paper were practiced with the translation students. Applying the suggested search stings on COCA enhanced translation students' performance in their translations from Arabic into English. They started to use accurate collocates in their translations of academic texts. The errors of using English collocates significantly declined after implementing the suggested search mechanisms on COCA. Another mechanism could be implemented to look up collocations using the collocates display option available on the corpus. Using this option, there is a tab for the target word which the student/learner needs to look up its collocates. The part of speech of the target word should be specified using the (POS) list. Likewise, the part of speech of the collocates that would be looked up should be specified using the (POS). The valuable option here is that the student/learner could limit the search to either the collocates occurring before the word or the words occurring after, or both.

There is another option that many students find valuable when looking up collocates. Many students find difficulty figuring out whether a word/phrase could be used academically or not. Using square brackets and the equal sign (=), learners could get synonyms for the word they need with a specific collocate and limit the search to the academic sub corpus.

Appendix C: Data tables
 Table 1
 Pre Test translation outcomes of Collocations

		Strong Collocation	Semi Collocation	Unacceptable Collocation	Paraphrase	Omission	Mistranslation
Verb + Noun Collocations	**1**	5/12	4/12	2/12			1/12
	2	9/12	2/12			1/12	
	3	2/12	3/12	5/12	1/12		1/12
	4	4/12	1/12	4/12		1/12	2/12
	5	4/12	2/12	4/12			2/12
	6			9/12			3/12
	7	5/12	1/12	6/12			
	8	6/12	3/12	3/12			
	9		11/12				1/12
	10	2/12	3/12	4/12	1/12		2/12
	11		9/12	3/12			
Type	**12**	6/12	4/12	1/12	1/12		
	13	1/12	3/12	1/12	4/12	1/12	2/12
	14	1/12	4/12		6/12		1/12
	15	4/12	3/12	2/12	3/12		
	16	10/12		2/12			
	17	8/12	3/12	1/12			
	18	4/12	1/12	5/12		2/12	
	19	6/12		6/12			
	20	8/12			3/12		1/12
	21	5/12	7/12				
Noun + Noun Collocations	**22**	4/12		8/12			
	23	6/12		5/12		1/12	
	24	1/12	6/12	5/12			
	25	7/12				5/12	
	26	4/12		8/12			
	27	4/12	2/12	2/12		3/12	1/12
	28	2/12		4/12	2/12	2/12	2/12
	29	1/12		2/12	4/12	5/12	
	30	6/12		3/12		3/12	
Prep osi	**31**	3/12	4/12	3/12	1/12		1/12
	32	2/12		4/12	4/12		2/12

33	4/12		4/12	4/12		
34	2/12	4/12	6/12			
35	3/12		3/12	3/12	3/12	
36	3/12	9/12				
37	3/12	6/12	3/12			
38	3/12		6/12	3/12		
39	6/12	3/12	3/12			
40	3/12	6/12	3/12			
Total	157/480 (32.7%)	104/480 (21.7%)	130/480 (27.1%)	40/480 (8.3%)	27/480 (5.6%)	22/480 (4.6%)

Table 2
Pre Test translation outcomes of Phrasal Verbs

		Acceptable Phrasal Verb	Encapsulation	Paraphrase	Unacceptable Phrasal Verb	Omission	Mistranslation
Phrasal Verbs	1	5/12	1/12	2/12			4/12
	2	3/12		1/12	5/12		3/12
	3	4/12			8/12		
	4	7/12	1/12			3/12	1/12
	5	6/12	3/12				3/12
	6	1/12		2/12	7/12	1/12	1/12
	7	7/12	2/12	1/12	2/12		
	8	9/12		3/12			
	9	3/12	3/12				6/12
	10	6/12		6/12			
	11	3/12		3/12	3/12		3/12
	12	9/12				3/12	
	13	3/12	6/12			3/12	
	14	2/12	4/12	2/12			4/12
	15	3/12	6/12	3/12			
	16	6/12			3/12		3/12
	17	3/12	4/12		3/12	2/12	
	18	3/12	6/12			3/12	
	19	3/12	3/12				6/12
	20	4/12	2/12			2/12	4/12
Total		90/240 (37.5%)	41/240 (17.1%)	23/240 (9.6%)	31/240 (12.9%)	17/240 (7.1%)	38/240 (15.8%)

Table 3
Post Test translation outcomes of Collocations

		Strong Collocation	Semi Collocation	Unacceptable Collocation	Paraphrase	Omission	Mistranslation
Verb + Noun Collocations	1	8/12			4/12		
	2	7/12	2/12	2/12			1/12
	3	12					
	4	4/12	4/12	4/12			
	5	8/12		3/12			1/12
	6	8/12	2/12		2/12		
	7	12					
	8	6/12		3/12			3/12

Adjective + Noun Collocations	**9**	12					
	10	6/12	4/12	2/12			
	11	5/12	3/12	3/12	1/12		
	12	10/12		1/12	1/12		
	13	8/12	1/12	2/12			1/12
	14	10/12		2/12			
	15	9/12	2/12	1/12			
	16	5/12	5/12	2/12			
	17	4/12	1/12	6/12		1/12	
	18	2/12			9/12	1/12	
	19	7/12	1/12	2/12	2/12		
	20	6/12		2/12	2/12		2/12
	21		6/12		6/12		
	22	10/12				2/12	
Noun + Noun Collocations	**23**	6/12		2/12	2/12		2/12
	24	4/12	4/12	3/12			1/12
	25	12					
	26	6/12		3/12	3/12		
	27	9/12	3/12				
	28	6/12	3/12		3/12		
	29	9/12	3/12				
	30	12					
	31	3/12		3/12	6/12		
Prepositional Collocations	**32**	3/12	9/12				
	33	3/12		3/12	6/12		
	34	12					
	35	7/12	2/12	3/12			
	36	4/12	8/12				
	37	6/12		3/12	3/12		
	38	12					
	39	6/12	3/12		3/12		
	40	3/12		3/12	6/12		
Total		282/480 (58.7%)	66/480 (13.8%)	58/480 (12.1%)	59/480 (12.3%)	4/480 (0.8%)	11/480 (2.3%)

Table 4
Post Test translation outcomes of Phrasal Verbs

		Acceptable Phrasal Verb	Encapsulation	Paraphrase	Unacceptable Phrasal Verb	Omission	Mistranslation
Phrasal Verbs	**1**	9/12		3/12			
	2	5/12	3/12		2/12	1/12	1/12
	3	12					
	4	6/12		2/12	4/12		
	5	6/12	2/12	1/12	3/12		
	6	5/12	1/12	6/12			
	7	6/12	3/12	3/12			
	8	3/12		5/12		3/12	1/12
	9	3/12	6/12	3/12			

10	3/12	9/12				
11	6/12	2/12		3/12		1/12
12	9/12		3/12			
13	3/12	6/12	3/12			
14	9/12			3/12		
15	12					
16	5/12			6/12		1/12
17	6/12		6/12			
18	3/12	9/12				
19	12					
20	6/12	3/12	3/12			
Total	129/240 (53.7%)	44/240 (18.3%)	38/240 (15.8%)	21/240 (8.8%)	4/240 (1.7%)	4/240 (1.7%)