Using an Online Collocation Dictionary to Support Learners' L2 Writing

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Introduction

Collocation is the phenomenon by which certain words tend to co-occur with others; for example, *complain* tends to be modified by *bitterly* rather than *fiercely* or *strongly* and has been observed through corpus descriptions of language. Collocations may be problematic for any language learner, for instance somebody learning a specialised genre of their L1, but are particularly challenging in L2 (Bahns 1991; Lewis & Conzett 2000; Nesselhauf 2003). Collocations have been found to be troublesome to learners from a number of different language backgrounds, e.g. German (Bahns & Eldaw 1993), Thai (Phoocharoensil 2012), Japanese (Koya 2003) and Taiwanese (Huang 2001), as well as at different language levels (Laufer & Waldman 2011; Nesselhauf 2003). 'The difficulties for language learners are not to understand what *weak tea* is but to actively produce *weak tea* and not *feeble tea* or *light tea*' (Herbst 2010: 226). Laufer and Waldman (2011) point out that learners' productive knowledge of collocations is typically

much worse than their reception. Equipping advanced learners with a strategy to improve collocational competence by themselves is probably more useful than teaching collocations, as students are preparing to study independently at this stage. This study thus aims to contribute to applied linguistics through using knowledge from text studies for the real-world purpose of supporting language learners. It supplements existing studies by working with student participants from a new linguistic and geographical context, thus continuing the diversification of applied linguistics research beyond the traditional contexts of study.

The pedagogical value of the dictionary as a source of information for language learning has long been emphasised by lexicographers (Hornby et al. 1974; Sinclair 1987; Wright 1998). General dictionaries, as Bogaards (2003) points out, however, are mainly used for receptive rather than productive purposes. When using them productively, learners mostly seek help with information on spelling; collocation searches in dictionaries are much less common (Bogaards 2003; Harvey & Yuill 1997).

Collocation dictionaries are a specialised type of dictionary aimed at serving learners' encoding purposes and are addressed at learners at upper-intermediate to advanced level and translators (Bogaards 2003; Nuccorini 2003). With the widespread availability of the internet, accessing resources such as the Online Oxford Collocation Dictionary of English (OOCDE) is straightforward. According to Nuccorini (2003: 378), the OOCDE is more pedagogically oriented than other collocation dictionaries such as the *BBI Dictionary of English Word Combinations*, *Selected English Collocations* and *English Adverbial Collocations*. Although numerous studies investigating the use of general dictionaries and their support to learners' collocation use in writing have been carried out (Benson 1989; Jacobs 1989; Laufer 2010), relatively little attention has been paid to the effects of specialised dictionary use on learners' collocational accuracy. This study examined the effects of using the OOCDE on collocation use of advanced language learners. The research focused on lexical collocations of the following grammatical patterns: Verb–Noun, Noun–Verb, Adjective–Noun, Noun–Noun, Noun–of–Noun, Adverb–Verb, Adjective–Adverb.

Identifying collocation

Collocation is understood slightly differently depending on if it is viewed as a statistical or phraseological phenomenon. Most discussions of collocation involve the distinction between collocation and the ideas of *free combination* and *idiom* (Benson 1989; Cowie 1981; Howarth 1998). We used both approaches. Firstly, we see collocation as the statistically frequent co-occurrence of words, identified in this study using Log Dice (Rychlý 2008). We chose this measure because

it provides learner-friendly collocation candidates (Gablasova et al. 2016) and is described as 'a lexicographer-friendly association score' (Rychlý 2008: 6). For this study, we took a Log Dice score of 4 or higher as significant.

Secondly, to differentiate collocations from idioms, we used the criterion of transparency, a phraseological criterion. This is taken to mean that the meaning of the combination as a whole is clear from the meanings of individual words regardless of whether or not the base of the combination carries the literal meaning (Philip 2011). For example, in the case of *take steps* in the sentence *Where reasonably practicable, the authority must take steps to reunite the child and his family*, *steps* here has a figurative sense but the combination as a whole is transparent, meaning to take a measure or action in order to deal with or achieve a particular thing. Its Log Dice score is 9.0, above the threshold, and therefore on the basis of these two criteria it was considered a collocation in this study.

Difficulties of dictionary use for production

Learners consult dictionaries for many purposes, such as meaning, spelling and part of speech, aside from looking for collocations (Nesselhauf 2005). Atkins and Varantola (1997) found that checking collocation only accounted for one tenth of all dictionary uses. Lew (2004) on Polish learners' dictionary use found that the 24.4% of learners did not look up collocations to do a translation task, and 43.8% confirmed they hardly ever did.

The relatively few studies of the use of dictionaries for collocation look-ups suggest that learners did not gain much (Dziemianko 2014; Laufer 2010). Laufer (2010) claims that learners encountered difficulties with using general dictionaries. The participants in her study reported that they could not find 20% of collocations needed for a translation task. The ineffective use of general dictionaries for collocation look-up is because either they do not contain many collocations, even those that frequently occur (Hottsrnonn 1991: 231), or learners cannot find collocations that they want since they occur in examples (Laufer 2010).

Differences between general and collocation dictionaries

Collocation dictionaries differ from other bilingual and monolingual dictionaries in that the presentation is explicitly all around collocations of both lexical and grammatical types (Lea 2007). Atkins and Rundell (2008: 363) have studied style guides and instructions on how to handle multiword expressions (MWEs), of which collocations are an important group, and have identified a number of ways in which they are tackled.

1. Enter the MWEs under the first or only lexical (not grammatical) word (i.e., *to pull someone's leg* in the *pull* entry).
2. Enter it under the least frequent lexical word, the one expected to have the shortest dictionary entry (i.e., *to open the floodgates* at *floodgates*).
3. Enter it under the first or only noun in the phrase (i.e., *big deal* in the *deal* entry).
4. Enter it under the first or only verb in the phrase (i.e., *to twist and turn* in the *twist* entry).
5. Enter it as a headword in its own right (i.e., individual main entries for *big deal*, *pull someone's leg*).

According to Hottsrnonn (1991), lexical collocation which consist of a base and a collocate should be presented at the entries of the base. Nouns in verb + noun (e.g., *pursue studies*), noun + verb (e.g., *storm rage*), adjective + noun collocations (e.g., *heavy smoker*) and verbs and adjectives in those combinations are considered bases and collocates, respectively (Benson 1989; Hausmann 1989). In adverb + verb (e.g., *severely criticise*) and adverb + adjective (e.g., *deeply disappointed*), the verb and adjective are respectively the bases and adverbs are the collocates in both cases. Neither Hausmann (1989) nor Benson (1989) writes about noun + of + noun (e.g., *piece of advice*) or noun + noun collocations (e.g., *mountain bike*) explicitly. In standard clause analysis, the second noun is the base. However, the OOCDE treats the first noun as the base in noun + noun collocations, which, as we will show, causes problems.

Hottsrnonn (1991) argues that, when writing, to express an idea learners will think first of the base and thereafter look for collocates, which are supposed to be provided in collocation dictionaries to complete phrasal meanings. In general dictionaries many collocations are presented at the entry of collocates, but not at bases, and attempts to find collocations beginning with collocates are too difficult, if not hopeless, a task (Hottsrnonn 1991). Benson (1989) investigated how collocations should be entered in collocation dictionaries and provides examples to argue that learners might have to struggle to generate texts for that reason. The entry for the verb *draw* in Longman Dictionary of Contemporary English (LDOCE) presents collocations such as *draw attention*, *draw a crowd*, *draw a gun*, but they cannot be found at the entry of the noun base; collocations like *set the table*, *set a watch* can only be found at the entry of *set* but not of their collocating nouns in Oxford Advanced Learner's Dictionary of Current English (OALDCE) (Benson 1989: 7). The collocation *to meet someone's demands* cannot be found at the noun entry *demands* in Collins Dictionary of the English Language (CDOEL) (Hottsrnonn 1991: 231).

In the OOCDE base words are defined minimally, while collocates and whole collocations are not defined at all. The aim of this is to help learners focus on the reference work (Coffey 2010). Besides, as Coffey (2010) also points out, meanings of collocates are supposed to be either known earlier or inferable from their semantic set or demonstrative instances. However, it is true that learners are not always able to infer meanings of collocates from examples. An

example to illustrate this is the use of the adjective *sleek* in '*sleek design*', though '*elegant/stylish design*' is very likely to be inferable (Coffey 2010: 331). Understanding of the features as well as the possible strengths and weaknesses of the collocation dictionary guided us, teachers, on how to instruct learners to use the dictionary to best facilitate their learning.

Our research question was:

Does the use of the OOCDE aid learners to improve collocation use in L2 writing?

Method

Participants and instruments

The participants were 29 second-year English major students at a university in Ho Chi Minh City. Their English was upper-intermediate to advanced level. Two writing tasks were developed to test learners' productive knowledge of collocations. Recording sheets adapted from those by Atkins and Varantola (1997) were used to record step by step what learners did when they approached the dictionary for help. The use of recording sheets was twofold: (1) to provide a detailed description of how learners consulted the OOCDE and (2) to help trace back all collocation searches with information on which and how many collocations they looked up, and whether or not the use of those collocations was correct.

Procedures and data analysis

Data were collected in two phases. In Phase 1, the first set of 350-word essays on an assigned topic was collected. The essays were used as the baseline to examine if there were changes in collocation use. After this data collection phase, participants were introduced to the Oxford Online Collocation Dictionary of English and were given instructions on its use. They were also assigned activities to get familiar with the dictionary over a period of nine weeks. In Phase 2, the second set of essays written with the use of the OOCDE was collected. In this phase, we observed the students' use of the dictionary. We asked them to approach the OOCDE as naturally as possible. The participants worked in pairs, one using the OOCDE, the other recording every check-up on the recording sheet. The participants filling in the recording sheet only needed to complete information in column 2 (what headwords were looked up) and column 7 (whether the dictionary users used the dictionaries in combination with other dictionaries); the rest of information was completed by the participants doing the writing after they had finished their writing.

We analysed the students' written texts, focusing particularly on the acceptability of the collocations that the students produced at each phase of data

collection and developments between the two phases. The procedures of identifying and analysing collocations were as follows:

1. Extract lexical combinations of the seven grammatical patterns being considered (see above).
2. Assess the conventionality of the above combinations by using the British National Corpus.
    a. If the combinations met the frequency threshold of 5, they were considered to be conventional and would be processed as in step three, below.
    b. If the combinations did not meet the frequency threshold, native speaker informants were asked to make judgements on their acceptability:
        • If judged to be acceptable, the combinations would be considered further in the next step.
        • If judged to be unacceptable or questionable, they would be treated as marked collocations.
3. Distinguish strong collocations from casual combinations and idioms:
        • Distinguish strong collocations from idioms by using the transparency criterion.
        • Look for Log Dice score of the combinations from the BNC to identify strong collocations using a threshold of 4.

We then categorised marked collocations into three types: (1) marked collocations due to wrong choice of collocating words, which were subdivided into wrong choice at the collocates, at the bases and errors at the combination as a whole (e.g., *shorten the gap, *suffer stuffs, and *staying time respectively), (2) marked collocations not due to wrong choice of collocating words (e.g., *take advantage *on* students), and (3) collocations with inappropriate meaning in a particular context (e.g., *students studying abroad *have some drawbacks*).

   We investigated not just the appropriateness but the variety of collocation use. This involved an exploration and comparison of collocation use in the students' written texts without and with dictionary support. We begin by reporting the overall picture of collocations that students produced using OOCDE and move on to specific problems.

Results

The appropriateness of collocation use

Findings from the analysis of the two sets of essays regardless of whether or not collocations were consulted from the dictionary show that learners' collocation use in general did not improve. Counter to our expectations, the total amount of marked collocations in the second set of essays did not decrease

but instead increased, with 17 marked collocations more than before the intervention. As shown in Figure 15 below, all types of marked collocations found in the first set of essays were found in the second set. Collocations of V–N patterns are still collocations with the highest amount of marked collocations (62 collocations). Adj–N collocation pattern has the second highest amount of marked collocations (31 collocations), eight collocations more than the first set of essays. Marked collocations of Adv–V and Adv–Adj types slightly reduced.

The presence of more marked collocations when writing with OOCDE support than without initially suggested that the OOCDE did not help learners improve collocation use. Data from the recording sheets showed that although Adj–N is the collocation pattern that learners looked up the most (51 out of 126 look-ups), it is the collocation pattern which has the greatest increase in marked collocations (eight collocations). However, in order to better understand whether the OOCDE helps learners in improving collocational use, we compared written texts (without and with the OOCDE support) of individual participants. In Table 6 below, we summarise the amount of marked collocations of all the written texts written without and with the OOCDE support in pairs. If we categorise essays with three or more marked collocations fewer than in the first set of essays as an improvement of collocation use, two marked collocations fewer as a slight improvement, the number of marked collocations remaining the same or just reducing by one as not improved, and the number of marked collocations increasing as worse, we have the results as in Table 6. (Some participant numbers do not appear in this table, because the participants concerned missed one of the two writing sessions.)
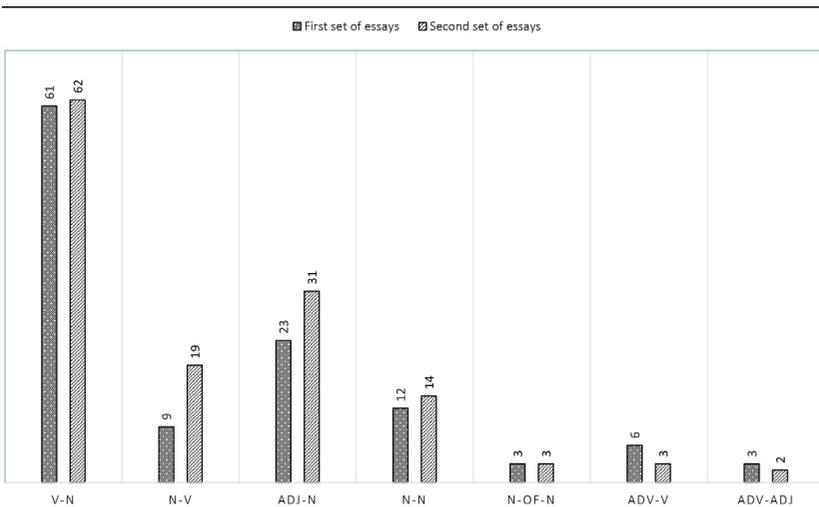

Figure 15: The number of marked collocations of the two sets of essays (Copyright Dung Cao and Alice Deignan, CC BY-NC 4.0).

Table 6: Comparison of individuals' marked collocations without and with the OOCDE support.

Written texts	Number of marked collocations (- dictionary)	Number of marked collocations (+ dictionary)	Number of look-ups	Change
T1A – T1B	3	3	7	Not improved
T4A – T4B	6	5	3	Not improved
T6A – T6B	2	0	3	Slightly improved
T7A – T7B	1	0	7	Not improved
T10A – T10B	3	2	6	Not improved
T11A – T11B	12	3	7	Improved
T12A – T12B	9	6	6	Improved
T13A – T13B	7	20	5	Worse
T14A – T14B	3	1	4	Slightly improved
T15A – T15B	4	5	5	Worse
T16A – T16B	3	3	2	Not improved
T17A – T17B	0	1	1	Worse
T19A – T19B	2	5	4	Worse
T20A – T20B	1	6	2	Worse
T21A – T21B	5	7	4	Worse
T22A – T22B	3	6	6	Worse
T23A – T23B	3	10	4	Worse
T24A – T24B	2	4	7	Worse
T25A – T25B	4	8	5	Worse
T27A – T27B	4	2	8	Slightly improved
T28A – T28B	8	6	1	Slightly improved
T31A – T31B	2	2	1	Not improved
T35A – T35B	1	4	2	Worse
T36A – T36B	7	11	7	Worse
T38A – T38B	5	3	2	Slightly improved
T40A – T40B	4	3	1	Not improved
T42A – T42B	10	6	6	Improved
T43A – T43B	1	1	6	Not improved
T44A – T44B	3	1	4	Slightly improved

It can be seen that the highest amount of marked collocations in a text was 20 (T13B), much higher than the result of the first group, 12. Only three out of 29 learners (10%) had a clear sign of collocational improvement with the number of marked collocations reducing by three or more. These students had carried out a number of dictionary look-ups except for one case, in which the student did only one look-up. Six learners (20%) improved slightly with two marked collocations fewer than in the first piece of writings. Almost a quarter of the students did not improve their collocational use. Twelve students (41%) performed worse with the amount of marked collocations increasing. There was a noticeable case (T13) with the number of marked collocations in the second writing more than double that number in the first piece of writing, 20 and seven, respectively.

Four out of 29 learners looked up collocations in the dictionary just once, and the comparison of collocation use in essays of these students brought up different results (one essay improving slightly, two not improving, and one getting worse). Results of collocation use in those essays written with seven or eight separate searches also spread evenly from improvement to getting worse. This means that the number of times consulting the dictionary seems to have no impact on the effectiveness of the production. Comparing the ratio of marked collocations over the number of collocations used in the two sets of essays in Table 7 below, we found that N–N collocation is still the collocation with the highest ratio of marked collocations over collocations used (16.9%). Adj–N collocation is the third highest (9.4%), higher than that in the first set of the written productions regardless of being the collocation pattern being searched the most – 51 out of 126 look-ups. The proportion of marked collocations over collocations of V–N patterns is still the second highest, with the number of marked collocations approximately the same with that of the first set of writings, 62 and 61, respectively.

Table 7: The ratio of marked collocations over collocation used in the first and second set of essays.

Collocation types	The first set of essays			The second set of essays		
	Total	Markedness	Percentage	Total	Markedness	Percentage
V–N	518	61	11.8%	452	62	13.7%
N–V	316	9	2.9%	313	19	6.1%
Adj–N	367	23	6.3%	330	31	9.4%
N–N	79	12	15.2%	83	14	16.9%
N–of–N	36	3	8.3%	45	3	6.7%
Adv–V	59	6	10.2%	54	3	5.6%
Adv–Adj	32	3	9.4%	41	2	4.9%

Comparing the numbers of collocations, casual combinations, and idioms used in the two sets of essays (see Figure 16 below), we found that the amount of strong collocations in the second set of essays decreased while casual combinations increased. This suggests that, even with the availability of dictionaries, learners did not use more collocations than without.

Table 8 below presents the distribution of types of marked collocations of the two sets of essays. It can be seen that similar to the first set of essays, the most
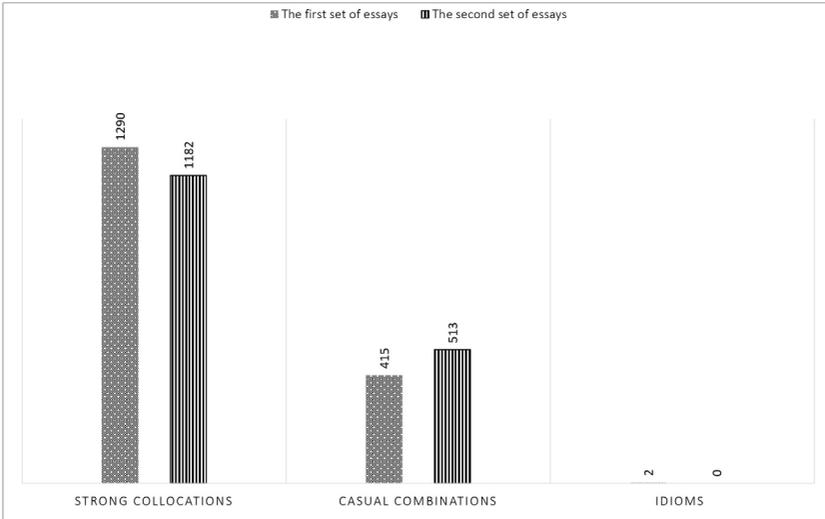

Figure 16: Distribution of combinations from the two sets of essays (Copyright Dung Cao and Alice Deignan, CC BY-NC 4.0).

Table 8: Distribution of the types of marked collocations in each collocation pattern.

Collocation patterns	Errors at collocating words		Errors not at collocating words		Inappropriate meaning	
	1st essay	2nd essay	1st essay	2nd essay	1st essay	2nd essay
V–N	24	39	22	13	15	10
N–V	9	19	0	0	0	0
Adj–N	20	28	0	0	3	3
N–N	12	14	0	0	0	0
N–of–N	3	3	0	0	0	0
Adv–V	4	3	0	0	2	0
Adv–Adj	2	2	1	0	0	0

common collocational error was wrong choice of collocating words in collocations of V–N and Adj–N pattern, and is the only type of marked collocation of the other patterns.

Marked collocations caused by wrong choice of collocates can be found in all collocation types: V–N collocations (e.g., *bring stress* instead of *cause stress*, *Remain relationship* instead of *maintain relationship*), N–V (e.g., *stress formed* instead of *stress arose*), Adj–N (e.g., *bad chemicals* instead of *harmful chemicals*), Adv–V (all three marked collocations) (e.g., *tax greatly* instead of *tax heavily*), and Adv–Adj (all two marked collocations) (e.g., *significantly polluted* instead of *extremely polluted*). The use of the collocate adjectives *good* and *bad* with very high frequency to express positiveness or negativeness again resulted in unacceptable combinations. *Good status* and *bad chemicals* are examples. The construction of collocations based solely on semantic meaning and syntactic knowledge of the target language causes these marked collocations.

Marked collocations at the base were found in collocations of V–N (e.g., *arrange their timeline* instead of *arrange their time*), N–V (e.g., *reasons create* instead of *factors cause*), Adj–N (e.g., *unhealthy status* instead of *unhealthy state*), and N–N pattern (e.g., *collar workers* instead of *white-collar workers*) in the second set of essays. The confusion of words that have similar forms (e.g., *status* and *state*) or that are associated with each other in some way (e.g., *timeline* and *time*, *collar* and *white-collar*) led to the construction of these marked collocations.

Marked collocations as a whole were also found in the second set of essays. Marked collocations of this type were detected in V–N (e.g., *appoint to a (higher) position* instead of *assigned to a (higher) position*), N–V (e.g., *(technological) advancement has outshone*; no suggestion for correction), Adj–N (e.g., *breaking days* instead of *leisure time/days away from work*), N–N (e.g., *soil sources*; no suggestion for correction) and N–of–N (e.g., *state of emotion* instead of *emotional state*). The confusion between N–N and N–of–N construction was also observed in the second set of essays. *Living style*, *life quality*, *stress of relationship* were used where *style of living*, *quality of life* and *relationship stress* were the expected collocations, respectively.

Marked collocations not at collocating words in the second set of essays are associated with prepositions (all 13 collocations). Learners also added (e.g., *explain for the phenomenon* instead of *explain the phenomenon*), omitted (e.g., *dealing deadlines* instead of *deal with deadlines*) or misused prepositions (e.g., *cope under pressure* instead of *cope with pressure*). Learners often had problem with prepositions when using the verb *face* (five out of 11 times that *face* were used). It seems that when there are two combinations relating to one word that could be used to express a similar idea (e.g., *face something* and *be faced with something*, *concern someone* and *someone [be] concerned about*), they tend to blend them (e.g., *face with many difficulties*).

Markedness due to inappropriate meaning of collocations in a particular context were found in the second set of essays; namely, 10 marked collocations are

of V–N collocation (e.g., *train skills* instead of *develop skills*) and three Adj–N collocation (e.g., *sufficient nutrition* instead of *well-balanced diet*). If in the first set of essays inappropriate use of the verb *take* did not occur, they were detected in the second set. Learners were confused between *take* and *have*; *take a (comfortable) chat* was used where *have a (comfortable) chat* was required instead. In another case *take* was mistakenly used while another verb is appropriate (e.g., *withstand the stress*). The most prominent errors were those that are associated with the noun *stress*. Of total 53 collocations containing *stress*, eight marked collocations were of V–N pattern and six N–V pattern. We noted that none of these combinations were checked up from the dictionary.

Results from recording sheets showed that 126 out of 144 look-ups were for collocation purposes. Almost all of the collocations looked up from the dictionary were used correctly. There are only two cases where collocations were not used appropriately in meaning. They are: *In this way, we can avoid the negative consequences and *boost the positive results.* (instead of *encourage the positive results*) and *Adults *retain a tremendous responsibility in caring for their children and teaching them* (instead of *maintain a tremendous responsibility*). This suggests that the dictionary can help learners to use collocations correctly in their writing, but only as long as they are aware of the collocations that pose problems and therefore actually use it.

Variety of collocation use

We counted and compared the number of combinations that had been repeatedly used more than two times in the first and second set of essays and found that the total number of repeatedly used collocations in the second set of essays reduced considerably (35 collocations less than the first set of essays). Looking at this dimension of individual students' essays, we found that 26 out of 29 students used fewer number of collocations repeatedly in the second essays compared to the first. However, it is noticeable that many of the repeatedly used combinations from the first set of essays (31 out of 52) are combinations used in the question title such as *students have*, *studying aboard*, and *foreign country*. It should not be taken for granted that the reduction of the amount of repeatedly used collocations was the positive impact of the OOCDE. This can only be concluded if evidence of students using the OOCDE to search for another way of expressing the same or nearly the same idea to avoid repetition could be detected. From the recording sheets, we found a few cases of the students stating that their use the OOCDE was to avoid repetition. They are: *cause stress, create stress*; *pressing problem, urgent problem*; *cause stress, create stress, lead to stress*; *avoid stress, handle stress, minimise stress*; *serious problem, big problem, common problem*. It is evident from this study that the dictionary can help students use a wide variety of collocations to avoid repetition as long as they wish to do so.

Discussion and conclusion

Our results suggest that writing with the supportive tool did not help learners improve their collocation use. The number of marked collocations in the essays written with the dictionary did not decrease but increased instead (17 more marked collocations in the second set of essays). Nearly half of the students (12 out of 29) performed worse than writing without using the dictionary. The number of collocations used in the second set of essays is much fewer than that in the first set (1,182 collocations in the first set and 1,290 in the second set). There is no clear indication of learners using a wider variety of collocations. However, most of the collocations looked up from the dictionary were used correctly, except for two cases where they were not used appropriately in meaning in the contexts. If we put aside the factor of different question titles in the first and the second essay, which might result in different results, it seems that not knowing collocations that present problems was an important factor conspiring towards higher number of marked collocations in the second essays written with the dictionary support. These could be collocations that are easily comprehensible and do not look problematic to learners in the language input (e.g., *strong coffee, follow instructions, offer help, regular service* etc.) (Laufer 2010); learners therefore did not notice when encountering them in the language input or check them from the dictionary when writing. As such, teachers need to bring these matters into learners' attention. It is evident that learners did not make use of the dictionary effectively. If they know collocations that might pose problems and approach the dictionary for help, there is a high possibility that they can use collocations looked up from the dictionary successfully.

Another possible explanation for why the dictionary did not help learners improve collocations as hypothesised is that it did not provide learners with the collocations that they needed. It is obvious that the online dictionary does not provide learners with as many collocations as its electronic version does. Neither does it provide learners with collocations that are predictable (Benson 1989). However, it is not easy for lexicographers who are from different linguistic and cultural backgrounds to the learners to decide which collocations are predictable and which are not (Lea 2007). In reality, learners are still struggling with collocations that lexicographers consider 'predictable' such as *see a doctor* (Nakamoto 1992), or *improve (public) transportation*, *improve the traffic*, *improve life*, *reduce exhaust fume*, and *internal factors* as found in this study.

Where the dictionary did not seem to help learners improve collocation use, another factor could be that learners were not able to locate the collocations they needed even though the dictionary provides them. Mistyping a word in the search box could lead to this, for example. It could also be because learners coming from different linguistic and cultural backgrounds do not express ideas the same way as native speakers do; hence, they do not know that they could choose L2 collocates provided to express their intended meanings. *Strong tea* is an example. To express the idea *trà đắng* (*strong tea*), Vietnamese learners,

and almost certainly learners of other linguistic backgrounds, would look for a collocate which means 'being condensed or concentrated', and therefore might ignore the collocate *strong* suggested in the dictionary.

Although the overall result of collocation use with dictionary support is not encouraging, most of the collocations looked up in the dictionary were used grammatically and semantically correctly. The findings bring about a number of important implications for future practice.

The first, and probably the most important, implication for language educators is to give learners sufficient training on how to make full use of the dictionary. They need to emphasise to the learners that the dictionary provides support with collocations but the expectation of finding all of the possible collocates that can accompany the base word entry that they are searching for is not realistic. In order words, they need to make clear to the learners that the dictionary presents possible collocations; however, the list is not exhaustive. Collocates of the same or nearly the same meaning being presented together is important distinctive feature of this dictionary, and therefore should be introduced to the learner. However, they should also be encouraged to consult other dictionaries for meanings of collocates that they do not know before using it. This is because the research detected several cases where one collocation was chosen in place of another which was more appropriate in meaning.

The study found that more marked collocations occurred in essays written with dictionary support than in those written without. However, almost all of those marked collocations were produced without the dictionary being consulted. A lack of awareness of the concept of collocation is less likely to be a cause for this awkwardness since the concept was carefully introduced at the beginning of the course. What seems to be important here is that learners need to be made more aware of their possible collocational mistakes. It might be helpful if language teachers focus the learners' attention more on collocations that have no direct translation from learners' L1. Errors associated with blending combinations containing the same word to express similar meanings, such as *face something* and *to be faced with something*, need to be brought to greater attention since there is a high possibility that similar combinations, such as *comprise something/be comprised of something*, could pose a problem. Also, greater attention should be paid to collocations of N–N pattern since the ratio of the number of marked collocations over the collocations of this pattern used is 12/79 (15.2%), higher than the ratio of the V–N collocations (11.8%). Learners should also be made aware that overgeneralising the rule of forming N–N or N–of–N collocations based on combining two nouns could result in awkward combinations.

The study found that students used the OOCDE in combination with a thesaurus to find synonyms of collocates suggested from the OOCDE as for some headwords it does not provide many collocates. This seems to be a risky strategy and might result in marked collocations. One example relevant to this is *suffer from stress*. To avoid repeated use of this combination a student used **endure*

the stress after searching for synonyms of *suffer*. Hence, using the OOCDE in combination with a thesaurus in such a way is not recommended, or learners need to be advised to be vigilant with using synonyms of collocates from a thesaurus.

The presentation of collocations in the dictionary at the base entry, based on the argument that learners will think first of a base and then look for a collocate to complete the phrasal meaning (Hottsrnonn 1991), is fundamentally appropriate. To Vietnamese learners, at least in this study, nevertheless, the presentation of N–N collocations in the dictionary seems to be the odd one out. The first noun of the combination is the noun base and to search for a collocation of this pattern learners have to start with the first noun whereas Vietnamese learners tend to think first of the second noun. When searching for N–N collocations such as *bus stop*, *mountain bike* or *education policy* starting with the second nouns, dictionary users will not find them at the N–N collocation but at the Adj–N section (e.g., *bus stop*, *mountain bike*) or not find them at all (e.g., *education policy*). Presenting *bus* and *mountain* as adjectives that can accompany the according nouns is undoubtedly an error. It is therefore suggested that dictionary compilers might need to re-examine their presentation of collocations of this pattern in the dictionary.

Findings from the recording sheets show that learners were satisfied with more than three quarters (76.4%) of the results found in the dictionary. Comparing this with empirical results of the study, we can conclude that the dictionary has psychologically positive impacts on the learners rather than practical impact on their collocation use. What the dictionary brought about is a feeling of confidence and security that they have a supportive tool to rest on and that their collocations are native-like rather than any actual improvement of their collocation use. The dictionary is not beneficial or harmful on its own; the key lies in how learners use it. The findings show that it is to some extent a helpful resource for collocation consultations, especially for advanced learners, who are expected to actively expand their store of vocabulary on their own rather than wait to be taught. It is, therefore, worth introducing to language learners. Our study took the study of collocation to a new context, producing findings that usefully supplement and extend existing work in applied linguistics on collocation.

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