A Comparison of the Effects of Meaning-focused and Form-focused Instruction on the Learning of Collocations: An Empirical Study

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Abstract

The present research describes an empirical study to examine the effectiveness of collocation learning through meaning-focused instruction (MFI) and form-focused instruction (FFI). The purpose of this empirical study is to clarify the following differential learning effects: (1) the differences between FFI and MFI, (2) the differences between congruent collocations and non-congruent collocations, and (3) the differences between high-frequency vocabulary and low-frequency vocabulary. The result showed that both FFI and MFI led to improved scores, and comparison of them shows that FFI is more beneficial than MFI in all cases. It also showed that non-congruent collocations benefited more than congruent collocations did from FFI. This result supports previous research claiming that FFI draws learners' attention to the differences of meaning between their mother tongue and second language (Murao, 2004; Nesselhauf, 2003). Results also indicate that it is more effective to learn collocations composed of low-frequency verbs than those composed of high-frequency ones.

1. Background

There are numerous studies in vocabulary that conclude that FFI is more beneficial than MFI (File & Adams, 2010; Hill & Laufer, 2003; Laufer, 2003; Watanabe, 1997). However, it is not yet clear that the same conclusion applies to collocation learning.

There are only a few empirical studies which compared FFI with MFI. In addition to that, there is only one study (Nakata, 2007) to my knowledge which directly compares both modes of instruction. In this study,

Nakata (2007) concluded that FFI is more beneficial than MFI. Although Nakata (2007) described the outline of his study, it did not explain the details of the methods used in his study. That study alone does not provide a solid foundation for an answer to the question of the most effective mode of collocation instruction. Besides these reasons, there are no studies to my knowledge that compared collocation learning according to frequency level of the vocabulary from which collocations are composed.

2. Purpose

This study is partly based on Nakata (2007).

The purpose of this study is to clarify the following differential learning effects:

1. The differences between FFI and MFI,
2. The differences between congruent collocations and non-congruent collocations,
3. The differences between high-frequency vocabulary and low-frequency vocabulary, which have not been considered in previous research.

3. Research questions

The research questions of this study follow:

RQ1: Is there a differential collocation learning effect between FFI and MFI?

RQ2: Are there any differential collocation learning effects between congruent collocations and non-congruent collocations according to different modes of instructions (FFI and MFI)?

RQ3: Are there any differential collocation learning effects according to different frequency levels of vocabulary (verb) from which collocations are composed?

4. Method

4.1 Target collocations

Sixteen target collocations were chosen to examine the research questions above. These target collocations consist of eight collocations in which each collocation contains a verb at the JACET 1000 frequency level and eight collocations in which each collocation contains a verb at the JACET 7000-8000 frequency level, respectively (Table 1). The eight target collocations containing a JACET 1000 frequency level verb include four congruent collocations and four non-congruent collocations, and the eight target collocations containing a JACET 7000-8000 frequency level verb include four congruent collocations and four non-congruent-collocations. Originally, the eight collocations containing a JACET 1000 frequency level verb were extracted from Nakata (2007); however, some of the nouns were changed to nouns from which collocations within the top ten frequency in the Wordbanks Online corpus are composed in order to introduce more common and frequent collocations. Eight collocations containing JACET 7000-8000 words were also extracted from top ten frequency collocations in the Wordbanks Online corpus.

Table 1. Target collocations

High-frequency items (verb: JACET 1000 level)	congruent collocation	1. do business
		2. get (a) job,
		3. give (a) chance
		4. take responsibility
	non-congruent collocation	5. do damage
		6. make (a) decision
		7. pay (a) visit
		8. put (a) restriction
Low-frequency items (verb: JACET 7000-8000 level)	congruent collocation	9. condemn (an) attack
		10. betray trust
		11. curb violence
		12. deploy troops
	non-congruent collocation	13. concede (a) goal
		14. plead (a) case
		15. fetch (a) price
		16. loosen soil

*Underlined vocabulary items are the same as the ones used in Nakata (2007).

4.2 Participants

The participants were 23 Japanese first-year university students select-ed from an intact class of 48 students majoring in English. This empirical study was conducted on June 6th and 13th, 2017. They all had TOEIC® scores ranging from 180 to 755, in which most scores were in the 400 range (400-499). Thus, participants were chosen from the 400 range (400-499) of TOEIC® score that they had taken before. Each participant was assigned to either Group A with twelve members or Group B with elev-en members, based on their TOEIC® scores in ascending order to avoid proficiency effect. There were two absentees with Group B on June 13th, which means the numbers of participants completing the treatment were twelve (Group A; average score = 446.25, SD = 27.62) and nine (Group B; average score = 450.56, SD = 27.53). Group A learned target collocations through MFI for the High-frequency items and then FFI for the Low-fre-quency items. On the other hand, Group B learned target collocations through FFI for the High-frequency items and MFI for the Low-frequency items (Table 2).

Table 2. Instruction modes and items in Group A and Group B

	High-frequency items	Low-frequency items
Group A	Meaning-focused instruction	Form-focused instruction
Group B	Form-focused instruction	Meaning-focused instruction

4.3 Material

The materials for Group A consisted of eight comprehension questions and their answers with Japanese translations containing one High-frequen-cy item respectively for meaning-focused instructional exercises, and of eight fill-in target collocation questions with Low-frequency items, their answers and passages containing one target collocation with Japanese translations respectively for form-focused instructional exercises. The materials for Group B consisted of eight fill-in target collocation questions with High-frequency items, their answers and passages containing one

target collocation with Japanese translations respectively for form-focused instructional exercises, and eight comprehension questions and their answers with Japanese translations containing one Low-frequency item respectively for meaning-focused instructional exercises.

In this empirical study, all English materials were extracted from Wordbanks Online corpus and Japanese translations were added to them. The average length of the English passages was 67.3 words. (In Nakata (2007) it was 61.2 words)

4.4 Treatment

A pretest was conducted on June 6th to make sure to what extent the participants had prior knowledge about target collocations (Table 3). The pretest was divided into two types of fill-in-blank target collocation production test: the first type required the participants to provide both a verb and a noun for a given sentence; while the second type required them to provide only a verb. The same English passages were used in both of them. The participants took the first type of test first followed by the second type.

Exercise practice, exercise, and immediate posttest were conducted one week after the pretest (Table 3). Firstly, the researcher described the outline of the experiment except for the immediate posttest in order to avoid intentional learning. Before the exercise, the participants practiced one sample exercise including a sample collocation under meaning-focused condition with Group A and form-focused condition with Group B, respectively.

In the first half of exercises, the participants with Group A under meaning-focused condition were asked to read eight English passages including one target collocation with High-frequency items for each passage, and to answer the comprehension questions about the passages. After that, they checked their answers and translations. These comprehension questions were made up in such a way that the participants could not answer correctly unless they understood the meaning of the target collocations. This led the participants to understand the meaning of the target colloca-

tions. For unfamiliar vocabulary, L1 glosses were given in order to help participants' reading. The answer and L1 translation to each question was provided on the following page, which allows the participants to understand the meaning of the whole passages including target collocations. The samples of the instructional materials can be seen in Appendix A.

On the other hand, the participants with Group B under form-focused condition were provided eight Japanese translations for target collocations with Low-frequency items and required to write correct target collocations in the blanks. After that, they checked their answers for target collocations and English passages containing target collocations with Japanese translations. The samples of the instructional materials can be seen in Appendix B.

In both modes of instruction, one passage containing a target collocation with Japanese translations is presented on one side of a page. The answer to the question, either a comprehension question for meaning-focused condition or a fill-in target collocation for form-focused condition, was presented on the other side of the page.

These exercises, both in the meaning-focused condition with Group A and the form-focused condition with Group B, had total time restriction of 27 minutes. In order to secure the participants' addressing all questions during the exercises, the researcher notified the participants when each three minutes had come, and asked them to move on to the next question. And then the researcher asked them to review their answers in the last three minutes.

Immediately after the above exercises, two types of tests were conducted to assess the effectiveness of meaning-focused exercises with Group A and form-focused exercises with Group B respectively. They were composed of a verb-noun test with a 4-minute time limitation and a verb-only test with a 2-minute time limitation. Firstly, the verb-noun test was administered, followed by the verb test.

After 5 minutes' break, the second half of the exercises was conducted in the same manner as the first half of exercises except for modes of instruction (form-focused condition with Group A, meaning-focused condi-

tion with Group B) and the frequency level verbs with target collocations (Low-frequency items with Group A, High-frequency items with Group B).

Finally, the participants were asked to fill in a questionnaire such as which collocation they found the most difficult to answer in all exercises, which one they found easier to learn collocations—meaning-focused exercise and form-focused exercise—and how they usually learn vocabulary or collocations.

Table 3. Design of the study

Group A	Group B	
pre-test		6th, June
overall instruction		13th, June
practice exercise		
(meaning-focused instruction)	*(form-focused instruction)*	
exercise		
(meaning-focused instruction) *High-frequency items*	*(form-focused instruction)* *Low-frequency items*	
post-test 1		
break		
practise exercise		
(form-focused instruction)	*(meaning-focused instruction)*	
exercise		
(form-focused instruction) *Low-frequency items*	*(meaning-focused instruction)* *High-frequency items*	
post-test 2		

(1st half applies to the meaning/high-frequency and form/low-frequency rows; 2st half applies to the form/low-frequency and meaning/high-frequency rows.)

5. Results

Results of this study will be presented following each RQ.

RQ1: Is there a differential collocation learning effect between FFI and MFI?

This empirical study showed that both FFI and MFI resulted in improved scores in these tests. Comparison of the result showed that FFI was more beneficial than MFI in all cases (See Table 4 for improved rates of mean scores: 15.7% for MFI and 68.0% for FFI with verb + noun in High-frequency items; 66.7% for FFI and 15.2% for MFI with verb +

noun in Low-frequency items; 4.1% in MFI and 48.6% for FFI with verb in High-frequency items; 68.8% for FFI and 16.7% for MFI with verb in Low-frequency items. As seen in Table 4 and Figure 1, an increase (1.2) in the scores was observed from pretest (M=2.3) to posttest (M=3.5) while an increase (5.5) in the scores was observed from pretest (M=2.1) to posttest (M=7.6) for FFI with verb+noun in High-frequency items; an increase (0.4) in the scores was observed from pretest (M=3.3) to posttest (M=3.7) for MFI while an increase (3.9) in the scores was observed from pretest (M=3.8) to posttest (M=7.7) for FFI with verb in High-frequency items; an increase (5.3) in the scores was observed from pretest (M=0.2) to posttest (M=5.5) for FFI while an increase (1.3) in the scores was observed from pretest (M=0.3) to posttest (M=1.6) for MFI with verb+noun in Low-frequency items; an increase (5.5) in the scores was observed from pretest (M=0.3) to posttest (M=5.8) for FFI while an increase (1.3) in the scores was observed from pretest (M=0.7) to posttest (M=2.0) for MFI with verb in Low-frequency items).

The above data showed that there is a differential collocation learning effect between them, and FFI benefits more than MFI because FFI improved their scores more than MFI did.

Table 4. Mean scores and improved rates of mean score in pre-test and
post-test

|		verb + noun		verb	
		High-frequency items (verb: JACET 1000)	Low-frequency items (verb: JACET 7000 - 8000)	High-frequency items (verb: JACET 1000)	Low-frequency items (verb: JACET 7000 - 8000)
Group A (n = 12)		MFI	FFI	MFI	FFI
pre-test mean score (perfect score = 8)	a	2.3	0.2	3.3	0.3
post-test mean score (perfect score = 8)	b	3.5	5.5	3.7	5.8
improved mean score (a – b)	c	1.2	5.3	0.4	5.5
pre-test mean accuracy rate (a / 8) (%)	d	28.1%	2.1%	41.7%	3.1%
post-test mean accuracy rate (b / 8) (%)	f	43.8%	68.8%	45.8%	71.9%
improved rate of mean score (d – f) (%)	g	15.7%	66.7%	4.1%	68.8%
Group B (n = 9)		FFI	MFI	FFI	MFI
pre-test mean score (perfect score = 8)	a	2.1	0.3	3.8	0.7
post-test mean score (perfect score = 8)	b	7.6	1.6	7.7	2.0
improved mean score (a – b)	c	5.5	1.3	3.9	1.3
pre-test mean accuracy rate (a / 8) (%)	d	26.4%	4.2%	47.2%	8.3%
post-test mean accuracy rate (b / 8) (%)	f	94.4%	19.4%	95.8%	25.0%
improved rate of mean score (d – f) (%)	g	68.0%	15.2%	48.6%	16.7%
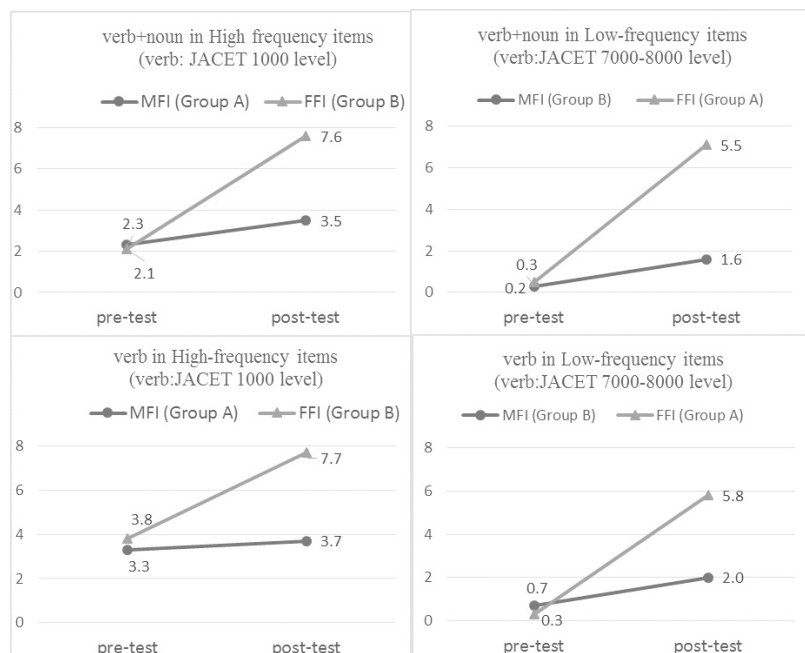
Figure 1. Comparisons of pre-test and post-test mean scores between FFI
and MFI at different frequency levels of verb

RQ2: Are there any differential collocation learning effects between con-
gruent collocations and non-congruent collocations according to dif-
ferent modes of instruction?

The study also showed that there were different collocation learning
effects between congruent collocations and non-congruent collocations
in both modes of instruction (FFI and MFI). However, the two mode of
instruction (MFI and FFI) showed different trends. Non-congruent col-
locations benefited more than congruent collocations did in FFI (As seen
in Figure 2, an increase (4.5) in the scores was observed from pretest
(M=2.1) to posttest (M=6.6) for congruent collocations while an increase
(6.3) in the scores was observed from pretest (M=0.2) to posttest (M=6.5)
for non-congruent collocations with verb+noun in FFI; an increase (3.7)
in the scores was observed from pretest (M=2.9) to posttest (M=6.6) for
congruent collocations while an increase (5.7) in the scores was observed
from pretest (M=1.1) to posttest (M=6.8) for non-congruent collocations
with verb in FFI). On the other hand, congruent collocations benefited
more than non-congruent collocations did in MFI (As seen in Figure 2, an
increase (1.9) in the scores was observed from pretest (M=2.2) to posttest
(M=4.1) for congruent collocations while an increase (0.6) in the scores
was observed from pretest (M=0.4) to posttest (M=1.0) for non-congruent
collocations with verb+noun in MFI; an increase (1.2) in the scores was
observed from pretest (M=3.2) to posttest (M=4.4) for congruent collo-
cations while an increase (0.5) in the scores was observed from pretest
(M=0.8) to posttest (M=1.3) for non-congruent collocations with verb in
MFI).

The above data showed that there are different collocation learning
effects between congruent collocations and non-congruent collocations in
both modes of instruction (FFI and MFI). However, the two modes of in-
struction show different trends. While non-congruent collocations benefit
more than congruent collocations do in FFI, congruent collocations benefit

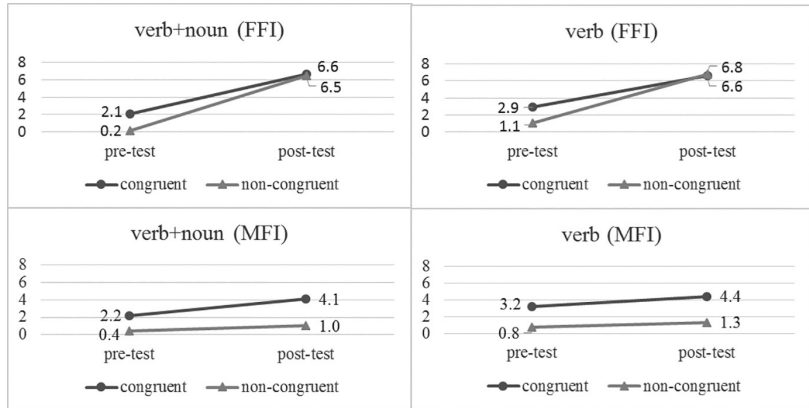more than non-congruent collocations do in MFI.

Figure 2. Comparisons of pre-test and post-test mean scores in MFI/FFI
with congruent/non-congruent collocations

RQ3: Are there any differential learning effects according to different frequency levels of vocabulary (verb) from which collocations are composed?

    In the comparison of learning effects according to different frequency levels of verbs, the result showed that low-frequency verbs benefited more than high-frequency verbs did in both FFI and MFI. (See Figure 3 for mean scores: an increase (3.9) in the scores was observed from pretest (M=3.8) to posttest (M=7.7) for High-frequency items verb while an increase (5.5) in the scores was observed from pretest (M=0.3) to posttest (M=5.8) for Low-frequency items verb with FFI; an increase (0.4) in the scores was observed from pretest (M=3.3) to posttest (M=3.7) for High-frequency items verb while an increase (1.3) in the scores was observed from pretest (M=0.7) to posttest (M=2.0) for Low-frequency items verb with MFI.) From the point of view of mode of instruction (FFI and MFI), FFI was more beneficial than MFI both with high-frequency verbs (High-frequency items verb) and low-frequency verbs (Low-frequency items verb), espe-

cially in low-frequency verbs (Low-frequency items verb).

The above data showed that there is a differential collocation learning effect between low-frequency verbs and high-frequency verbs based on the fact that low-frequency verbs benefited more than high-frequency verbs did in both modes of instruction.
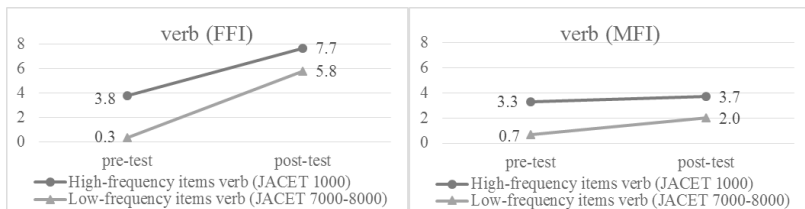

Figure 3. Comparisons of pre-test and post-test mean scores in FFI/MFI at different frequency level verbs

6. Discussion

The results of this study suggest the following answers to the research questions posed:

The higher gain in the FFI supports the validity of the "Noticing Hypothesis" (Schmidt, 1990), which is the theoretical foundation of FFI, claiming that learners must consciously notice forms in the input in order for acquisition to occurs.

The over-all higher gains in FFI over MFI indicate that simple exposure to collocations does not necessarily lead to effective learning of collocations. They also indicate that FFI makes it possible to fix the misunderstanding of meanings of collocations and comprehend their correct meanings to identify the meaning differences between L1 and L2 while drawing learners' attentions to them (Murao, 2004; Nesselhauf, 2003). The over-all higher gain in FFI over MFI, especially the significant higher gain with non-congruent collocations mean that it is more useful for learners to find out the correct meanings of collocations in FFI than MFI, especially

in leaning non-congruent collocations with more learning difficulties than congruent collocations.

This result is different from that of Nakata (2007). Nakata (2007) suggested that there were no differences between congruent collocations and non-congruent collocations both in FFI and MFI except for verb test with MFI. In verb test with MFI in Nakata (2007), congruent collocations yielded a significantly higher score than non-congruent ones.

The different learning effect between the current study and Nakata (2007) in congruent/non-congruent collocations might be caused partly by using different frequency level verbs (JACET 1000 verbs and JACET 7000-8000 verbs) as components of target collocations in current study while only high-frequency verbs (JACET 1000 verbs) were used in Nakata (2007). For example, many studies show that non-congruent collocations are more difficult than congruent collocations (Murao, 2004; Nesselhauf, 2003). However, the participants in this study must have not even recognized the L1-L2 meaning differences in non-congruent collocations with low frequency verbs because of the lack of previous vocabulary knowledge with low-frequency verbs (Group A = 0.0, Group B = 0.0; both pretest mean scores in verbs for non-congruent collocations with Low-frequency items containing JACET 7000-8000 verbs).This could count in favor of non-congruent collocations over congruent collocations composed of low-frequency verbs because they must have perceived non-congruent collocations consisting of low-frequency verbs as collocations containing unknown verbs due to their ignorance of these verbs, leading to avoidance of non-congruence.

Higher gain in low-frequency verbs rather than high-frequency verbs may be caused by the following factors:

As stated above, the participants in this study must have not even recognized the L1-L2 meaning differences in non-congruent collocations because of lack of the previous vocabulary knowledge with low frequency verbs. This could count in favor of low-frequency verbs over high-frequency verbs because they must have perceived non congruent collocations

consisted of low-frequency verbs as collocations containing unknown verbs due to their ignorance of these verbs.

Another factor is the fact that in current empirical study delexicalised verbs (e.g. do, get, give, make, take, put) were used as high-frequency verbs, which some researchers claim to be difficult to learn (Chi et al., 1994; Lennon, 1996). Lewis (2002: 216) describes delexicalised verbs as "components in a large number of multi-word expressions" and as having "little or no meaning outside the context of particular use". Chi et al. (1994: 164) also states that the delexicalised verb "takes its meaning from the noun which follows it" and that delexicalised verbs are "indeed problematic". Thus learning difficulty with delexicalised verbs could have a negative effect on high-frequency verbs.

7. Conclusion

This empirical study shows that FFI is more beneficial than MFI in all cases. These results support previous research underpinning form-focused instruction (Bahn & Eldaw, 1993; Murao, 2004; Nakata, 2007; Nesselhauf, 2003).

It also shows that non-congruent collocations benefit more than congruent collocations do from FFI. This result supports previous research claiming that FFI draws learners' attention to the differences of meaning between their mother tongue and the second language (Murao, 2004; Nesselhauf, 2003). However, on this point it does not support Nakata (2007). This difference may be caused partly by containing different frequency level verbs as target collocations in the current study as opposed to Nakata (2007) in which only high-frequency verbs were used.

Results may show that it is more effective to learn collocations composed of low-frequent verbs than those composed of high-frequent ones. This could be partly caused by avoidance of non-congruence in non-congruent collocations composed of low-frequency verbs due to ignorance of these verbs. In addition to it, learning difficulty with delexicalised verbs in high-frequency verbs could count in favor of low-frequency verbs over

high-frequency verbs.

Limitations and issues for future research follow:

1. The limited encounters in this exercise may have led to an advantage for FFI over MFI. Laufer suggested that "acquiring vocabulary from reading is a cumulative process" (2003: 581) and that "It is assumed that if a word is not remembered after the learner's first exposure to it, additional encounters will increase the probability of retaining it" (2003: 569). The participants in this study encountered target collocations only two times through the fill-in-blank exercise for FFI and reading exercise for MFI, respectively.

2. The learning condition in this study may have led to an advantage for FFI over MFI, because collocation production was conducted in both the exercise in FFI and tests used in this study.

3. In this study only verbs of collocations are compared to see differential collocation learning effects according to different frequency levels of vocabulary. In the future, both verbs and nouns of collocations need to be compared.

4. In this study only an immediate post-test was implemented. A delayed post-test should be conducted to see retention of collocation learning.

5. In this study there was a congruence effect in both FFI and MFI. This result is different from Nakata (2007). Further research should be implemented using the same frequency level verbs in order to verify the congruence effect in collocation learning fairly.

6. Learners with different levels of proficiency need to be compared. In this study participants were chosen only from average score of 400 range (400-499) of TOEIC® score as intermediate proficiency learners. Future research needs to show whether or not results of this study apply to learners with different proficiency levels in the same way.

7. The relative advantage of low-frequency verbs over high-frequency verbs could be caused partly by learning difficulty with delexicalised high-frequency verbs. Further research needs to be conducted without

delexicalised verbs in order to reach a clear conclusion on the differential learning effect between high-frequency verbs and low-frequency verbs.

Appendix A

指示：アメリカ合衆国の政治に関する新聞記事の一部です。以下の文章を読んで、英文に関する質問に答えてください。

英文：I think my party, the Democratic Party, the party of the people, ought to say, from this day forward, we will never take a dime from a Washington lobbyist; we do not do business with these insiders; we're going to give the power in this government back to the people.

語注：dime =（アメリカ合衆国）10 セント硬貨、
　　　insider = インサイダー、内情に通じた人

質問：民主党は何故、これらのインサイダーと取引を行うべきではないと述べていますか？答えを以下の 3 つの選択肢から選んで下さい。
　　　(1) お金の不正があったため
　　　(2) 密告を防ぐため
　　　(3) 権力を人民の手に取り戻すため

(feedback)

正解：Q)『民主党は何故、これらのインサイダーと取引を行うべき
　　　　　　ではないと述べていますか？』
⇒正解は、「権力を人民の手に取り戻すため」でした。

　英文：I think my party, the Democratic Party, the party of the people, ought to say, from this day forward, we will never take a dime from a Washington lobbyist; we do not do business with these insiders; we're going to give the power in this government back to the people.

　訳　：今日からはワシントンのロビイストから決してお金を貰わない、これらのインサイダーと取引を行わない、この政府の権力を人民の手に取り戻す、と私が属する人民の党である民主党が言うべきだと私は思う。

Appendix B

指示：以下の日本語に対応する英語となるように、（　）に英単語を記入して
　　　ください。

　問題：取引をする

　用例：We do not (　) (　) with these insiders.

　用例訳：我々はこれらのインサイダーと取引をしない。

(feedback)

正解：取引をする ＝ do business

　用例：We do not (do) (business) with these insiders.
　　　　我々はこれらのインサイダーと取引をしない。

更に詳しい用例
　英文：I think my party, the Democratic Party, the party of the people, ought to say,
　　　　from this day forward, we will never take a dime from a Washington lob-
　　　　byist; we do not do business with these insiders; we're going to give the
　　　　power in this government back to the people.

　訳　：今日からはワシントンのロビイストから決してお金を貰わない、こ
　　　　れらのインサイダーと取引を行わない、この政府の権力を人民の手
　　　　に取り戻す、と私が属する人民の党である民主党が言うべきだと私
　　　　は思う。

REFERENCES

Bahn, J., & Eldaw, M. (1993). Should we teach EFL students collocations? *System, 21*(1), 101-114.

Chi, M.L., Wong, P.Y., Wong, C.P., 1994. Collocational problems amongst ESL learners: a corpus-based study. In: Flowerdew, L., Tong, A.K. (Eds.), *Entering Text*. University of Science and Technology, Hong Kong, 157-165.

File, K.A., & Adams, R. (2010). Should vocabulary instruction be integrated or isolated? *TESOL Quarterly*, 44, 222-249.

Hill, M., & Laufer, B. (2003). Type of task, time-on-task and electronic dictionaries in incidental vocabulary acquisition. *IRAL*, 41, 87-106.

Laufer, B. (2003). Vocabulary acquisition in a second language: Do learners really acquire most vocabulary by reading? Some empirical evidence. *Canadian Modern Language Review,59*(4), 567-587.

Lennon, P. (1996). Getting "easy" verbs wrong at the advanced level. *International Review of Applied Linguistics in Language Teaching*, *34*, 23-36.

Lewis, M. (2002). *Implementing the lexical approach*. Hove: Language Teaching Publications.

Murao, R. (2004). L1 influence on learners' use of high frequency verb + noun collocations. *Annual Review of English Language Education in Japan*, *15*, 1-10.

Nakata, T. (2007). English collocation learning through meaning-focused and form-focused tasks. *Bulletin of Foreign Language Teaching Association (University of Tokyo)*, *11*, 51-68.

Nesselhauf, N. (2003). The use of collocations by advanced learners of English and some implications for teaching. *Applied Linguistics*, *24*, 223-242.

Schmidt, R. W. (1990). The role of consciousness in second language learning. *Applied Linguistics*, *11*(2), 129-158.

Watanabe, Y. (1997). Input, intake and retention: Effects of increased processing on incidental learning of foreign language vocabulary. *Studies on Second Language Acquisition*, *19*, 287-307.

Wordbanks Online, Shogakukan Corpus Network. NetAdvance Inc., http://scnweb.jkn21.com/WBO2/