Enhancing EFL Learners' English Reading Proficiency through Collocation Instruction

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Abstract

This empirical study aims to examine the effects of explicit and long-term collocation instruction on the development of reading proficiency of EFL vocational high school students in Taiwan. Vocational high school students are generally low-proficiency English learners, yet in addition to regular English courses, they have to learn ESP courses such as tourism English, nursing English, and technology English. Without sufficient collocation competence, they often have difficulties learning the formulaic expressions or language chunks in these courses. Based on Lewis' (2000) lexical approach and van Lier's (1996) 3A curriculum design, the author designed and implemented her collocation instruction in two vocational high school classes for six months. The results showed that the experimental class made significantly more progress than the control class in their English reading proficiency. Statistical analysis also indicated that a significant positive correlation exists between the students' collocation competence and their English reading proficiency. The pedagogical implications of this study include adding explicit collocation instruction to vocational high school English curriculum, raising EFL learners' awareness of collocations, and providing students with systematic and repetitive practice of collocation techniques.

Key Words: collocation instruction, reading proficiency, vocational high school English

INTRODUCTION

Much attention has been paid to research of collocation in recent years. However, most of the studies merely analyze the collocational errors made by EFL students. Few explore the pedagogical effects of collocation instruction. The purpose of this study is to examine the relation between EFL learners' collocation competence and their reading proficiency. It particularly aims to investigate the effects of explicit collocation instruction on the development of reading proficiency of vocational high school students in Taiwan.

For the past few decades, vocational high school English education has received less attention than senior high school English education. Nevertheless, in addition to general English courses, vocational high school students have to learn ESP courses such as business English, technology English, tourism English, nursing English, and so on. These courses include numerous collocations and formulaic language. Without sufficient collocation competence, vocational high school students would have difficulty studying ESP courses. Since vocational high school students are generally low-proficiency learners, it is worth investigating what kind of vocabulary instruction could help enhance their English reading proficiency.

Collocation competence is one of the key dimensions in vocabulary knowledge. There are at least three reasons why a good command of collocations in L2 is believed to be beneficial to learners. First, many multiword expressions are predictable neither by

grammar rules nor by the properties of the component words. In other words, they reflect Sinclair's (1991) *Idiom Principle*. Mastery of the idiomatic dimension of natural language can help learners become more native-like (Pawley & Syder, 1983). Second, since collocations are retrieved from memory holistically, they are believed to facilitate fluency in language production. We rely on such chunks to save processing time while other computation proceeds, enabling us to plan ahead for what we are going to say next (Skehan, 1998). Third, mastery of collocations may help learners reach a degree of linguistic accuracy. Lack of collocations forces students to make grammatical mistakes. They create longer utterances because they do not know the collocations which express precisely what they want to say. Teachers often focus on correcting the grammar mistakes, failing to realize that it will make no difference—the mistakes are not made because of faulty grammar but a lack of collocations. In sum, a good command of collocations is crucial to L2 proficiency in terms of accuracy, and native-like fluency.

LITERATURE REVIEW

This section was divided into two parts: first, the acquisitional issues of collocation were reviewed. Then, the pedagogical issues of collocation were presented. Collocation is not a new concept. Firth (1957) defined it as "words that frequently occur together" or "the company that words keep (p. 7)." Many studies have identified that collocations were extremely difficult for L2 learners to acquire. The factors influencing L2 learners' acquisition of collocation included

negative transfer of L1, complexity in semantic fields, vague meaning boundaries, different collocation competence, diverse cultural backgrounds and so on. For example, Biskup (1992) found that the wider the semantic field of a given lexical item, the more L1 interference errors it might trigger. Many of her Polish and German students misused **lead a bookshop* for the target English collocation *run a booksho*p, which was clearly an instance of L1 interference. Likewise, the more synonyms an item had, the more difficulties learners encountered in producing a restricted collocation. Lennon (1996), for instance, pointed out that the reason accounting for learners' erroneous use of high frequency verbs such as *put, go,* and *take* might lie in these verbs' rich polysemy and syntactic complexity. The tendency of using high-frequency words to substitute for the target lexical items exhibited that these learners were not aware of the collocational restrictions.

Another factor is related to individual learners' collocation competence. Granger (1998) and Howarth (1998), by comparing the writing corpora of L2 learners and native English speakers, both reported that these learners generally demonstrated deficient knowledge of English collocations. Bahns and Eldaw's (1993) also claimed that knowledge of English collocations did not necessarily imply satisfactory production of collocations, nor did their collocation competence progress with the development of their vocabulary knowledge. Therefore, collocations should be explicitly taught with emphasis on the restrictions of collocation. Furthermore, Teliya, Bragina, Oparina, and Sandomirskyay (1998) identified culture-related knowledge as another dimension embodied in the issue

of lexical competence. They argued that the use of some lexical collocations was restricted by certain cultural stereotypes. Lack of cultural competence might be responsible for learners' failure to acquire such culturally-marked collocations as metaphorical, idiomatic, and figurative collocations.

In the pedagogical part, Farghal and Obiedat (1995) claimed that when teaching collocations, both intralingual and interlingual approaches needed to be addressed. With an intralingual approach, teachers can juxtapose various meanings of a lexical item with different collocates to sensitize learners to the differences, whereas with an interlingual approach, teachers can make use of current corpora produced by native speakers to attract learners' attention to native-like usage of collocations. Lewis (1993, 2000) was one of the pioneers who has emphasized the importance of collocation instruction. In *The Lexical Approach*, he proposed using collocation instruction to bridge the gap between traditional vocabulary and grammar instruction. According to Lewis, language was full of prefabricated chunks, such as idioms, collocations, and formulaic usages. Teachers should not analyze these chunks when giving instruction; instead, they should teach these chunks as a whole. It was the teachers' responsibility to guide students' attention to these pervasive language chunks.

Lewis' proposal of collocation instruction was supported by many other language teaching experts, for example, McCarthy and O'Dell (2005), Nattinger and DeCarrico (1992), Nesselhauf (2003), and Nation (2001). These scholars believed that learning collocations can expand vocabulary repertoire, enhance retrieval, and increase reading speed and fluency. What was more, having sufficient

collocation competence can help learners make accurate predictions and improve reading comprehension. Despite these theoretical supports, few empirical studies have investigated how to teach collocations and what effects collocation instruction would bring to the development of the students' reading proficiency. The purpose of this study was to investigate how to apply collocation instruction to vocational high school English class and whether collocation instruction could help students enhance their English reading proficiency. The author designed the activities and exercises of this study based on van Lier's (1996) 3A interactive curriculum principle: *awareness, autonomy,* and *authenticity*. For instance, underlining, circling the collocations, and blank-filling were adopted to raise students' awareness of collocations. Dictionary-consulting and concordancing were utilized to help students autonomously learn collocations. Match games, translating, error-corrections were taught to help students use authentic collocations. It was hoped that through explicit and long-term collocation instruction, the students' collocation competence and reading proficiency could be raised to a satisfactory level.

METHOD

Participants

In total, 76 third-year vocational high school students participated in this study. They were divided into an experimental group (40 students) and control group (36 students). The two groups

had the same English teacher and used the same English textbook. The experimental group received explicit and systematic collocation instruction along with their regular English class for one semester (about six months), while the control group continued their regular English class without special emphasis and practice of collocation. To be morally fair and compensate for the control group, they were given the same collocation instruction after the completion of the experiment.

In addition, to ascertain that both groups were initially on a par as far as English proficiency was concerned, their performance in the English midterm and final exams, which contained dialogue, structure, cloze, and reading comprehension tasks, in the previous semester was compared by independent *t* test. The results in Table 1 indicated that the two groups were statistically equal in terms of their English proficiency.

Table 1
***t* Test on EG's and CG's Scores**
in the English Midterm and Final Exams

Group	n	Mean	s	t	df	p
EG	40	63.5278	13.50252	-.428	74	.670
CG	36	62.2007	13.48965			

Note. EG = experimental group; CG = control group.

Instruments

Four types of instruments were utilized in this study: (a) three Reading Proficiency Tests, (b) a Collocation Competence Test, (c)

two questionnaires, and (d) six lessons of collocation instruction. Each type of instrument is explained in detail in the following sections.

Reading proficiency tests. A total of three Reading Proficiency Tests were designed, including a pretest, an immediate post-test, and a delayed post-test. The pretest (RP-1) was aimed to measure students' reading proficiency before collocation instruction. The immediate post-test (RP-2) was used to investigate the immediate effects of collocation instruction on students' reading proficiency. The delayed post-test (RP-3) was designed to examine the follow-up development of students' reading proficiency.

Each RP Test consisted of 40 items, embedded in four subtasks: vocabulary, dialogue, cloze, and reading comprehension. The items were extracted from the 2001-2005 Joint Technological College Entrance Exam (JTCEE), a nationwide exam in Taiwan which all vocational high school students have to take before entering college. The reason for choosing the JTCEE was that it had a large data source, had strong washback effects on vocational English education, and was highly acknowledged for its reliability and validity. To eliminate the influence of practice effects, a survey was given to the participants in the prestudy questionnaire, and the result showed that none of the student had taken the JTCEE before. In addition, the original 2001-2005 JTCEE items (250 in total) were scrambled and given to 938 pilot students (EG and CG not included). The collected data were then processed by Item Response Theory (IRT) analysis to obtain such parameters as *difficulty*, *discrimination*, and *pseudo-guessing*. Based on these statistic results, some of the problematic items were

eliminated or revised by the researcher. To minimize the researcher's personal bias, the revised test items were reviewed by two experienced high school English teachers and two university professors, whose specialties were TEFL and language testing. To make sure the three RP tests were on the same difficulty level, the final version of the test items went through IRT analysis again, and the result showed that the mean difficulties of the three RP Tests were very close (1.103, 1.086, and 1.092, respectively). In other words, the three RP tests were equal in terms of their difficulty.

Collocation competence test. The Collocation Competence (CC) Test was designed to measure students' collocation competence before receiving collocation instruction. It consisted of 40 multiple-choice questions targeted on 40 lexical collocations. All the target collocations were extracted from the English textbooks which they had studied before. Like the RP Tests, the original CC Test items (80 in total) also underwent a pilot test taken by 306 students. To reduce the researcher's personal bias, the CC test items also were reviewed by the experienced teachers and the experts in university for its reliability and validity. The lexical collocations tested in the final version of the CC Test were presented in Table 2.

Questionnaires. The third instrument was two questionnaires developed for the study. The prestudy questionnaire was aimed at investigating students' previous learning experience before receiving the collocation instruction. In total, there were 17 questions, including two background questions and 15 formal questions. The two background questions investigated whether the participants had taken the General English Proficiency Test (GEPT) in Taiwan and JTCEE before. The 15 formal questions were divided into two parts:

Table 2
The Target Lexical Collocations in the CC Test

1. make + decision	14. rain + heavily	27. turn on + light
2. wind + blow	15. break + rules	28. take + advantage
3. bomb + explode	16. sun + set	29. do + exercise
4. fall + asleep	17. practice + medicine	30. lose + weight
5. strong + tea		31. keep + diary
6. take + exam	18. airplane + land	32. bouquet +follower
7. pay + attention	19. consult + dictionary	33. held + party
8. quick + temper		34. take + action
9. tell + joke	20. play + role	35. joys + sorrows
10. make + list	21. piece + furniture	36. take off + shoes
11. take + risk	22. keep + mind	37. say + prayer
12. deeply + absorbed	23. sound + asleep	38. fall in + love
13. ask + favor	24. wear + beard	39. heavy + smoker
	25. bitterly + cold	40. junk + food
	26. suffer + pain	

questions 1 through 9 were related to vocabulary learning habits, for example, whether students memorize individual words or word strings and whether students pay attention to the collocates of a keyword. Questions 10 through 15 dealt with students' dictionary consulting habits. For instance, students were asked whether they had previously used collocation dictionaries or online concordancers.

The poststudy questionnaire comprised 22 questions, which were also categorized into two parts. Questions 1 through 10 were

related to vocabulary learning habits. The purpose was to examine whether students had changed their vocabulary learning habits after receiving the instruction of collocation techniques, for example, whether they frequently noticed collocations in texts and whether they had learned to memorize word chunks. Questions 11 through 22 evaluated students' perception toward the effects of collocation instruction. Students were asked such questions as which lessons they liked most in collocation instruction. They had to provide reasons for their choices in addition to giving *yes-no* short answers.

The two questionnaires were written in Chinese, the subjects' L1, for fear that some students of low proficiency might not understand the questions well and thus fail to give proper answers.

Collocation instruction. The fourth type of instrument was collocation instruction. It consisted of six collocation lessons and a sample teaching plan. The instruction was not targeted to the preparation of RP tests. That is, the collocations tested in the RP Tests were not purposefully practiced in lessons of collocation instruction so that the practice effects could be reduced to a minimum. The content of the six collocation lessons is shown as follows:

Lesson 1 The Notion of Collocation

Unit 1-1: Collocation and Multiword Items

Unit 1-2: Chunk-Noticing and Underlying Techniques

Lesson 2 Tools for Learning Collocations

Unit 2-1: General and Collocation Dictionaries

Unit 2-2: How to Use Online Concordancers

Lesson 3 Collocations of Synonyms

Unit 3-1: Completing Collocation Grids

Unit 3-2: Collocational Restrictions on Synonyms

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Lesson 4 Collocations Without L1 Equivalents

      Unit 4-1: Keeping Records on Collocations

      Unit 4-2: Blank-Filling and Translation Activities

Lesson 5 Collocations of Delexicalized Verbs

      Unit 5-1: Matching Verbs with Nouns

      Unit 5-2: More Practice on Delexicalized Verbs

Lesson 6 Collocational Errors

      Unit 6-1: Correcting Unacceptable Collocations

      Unit 6-2: More Practice on Error-Correction

Each lesson consisted of two units, each containing several activities and handouts for individual work or group discussion. A sample of the activities and handouts was given in Appendix A.

Procedure

This study was carried out in the first semester of the students' third school year. It lasted about five months (four class hours per week, minus school holidays, midterm exam week, and final exam week). The whole process was divided into four stages: the pretest, the treatment, the immediate post-test, and the delayed post-test.

Before collocation instruction was implemented, both the experimental group (EG) and the control group (CG) took a pretest of reading proficiency (RP-1). In addition, EG also took the collocation competence test (CC Test) and filled out a prestudy questionnaire, which investigated the students' vocabulary learning habits and their knowledge of collocation. At the end of the semester when the collocation instruction was completed, an immediate post-test of

reading proficiency (RP-2) was given to both EG and CG to measure their development of reading proficiency. Additionally, EG had to fill out a poststudy questionnaire, which investigated their perception toward the collocation instruction. Then, one month after the completion of the collocation instruction, a delayed posttest (RP-3) was given to both groups to follow up their development in reading proficiency. Table 3 illustrated the tasks implemented in the four stages of this study.

Table 3
Tasks Implemented in the Three Stages of the Study

	EG	**CG**
Pretest	RP-1, CC-Test Prestudy Questionnaire	RP-1, CC-Test
Treatment	Regular English Lessons + Collocation Instruction	Regular English Lessons
Immediate Post-test	RP-2	RP-2
Delayed Post-test	RP-3 Poststudy Questionnaire	RP-3

RESULTS AND DISCUSSION

This section presents the results of this study. The findings were divided into three parts, organized along the following sets of data: (a) the relation between the Collocation Competence (CC) Test and

Reading Proficiency (RP) Tests, (b) the performance of the experimental group (EG) and the control group (CG) in the RP Tests, and (c) the responses to the prestudy and the poststudy questionnaires.

The Relation Between CC Test and RP Tests

Overall, the students did not perform well in the CC Test, with a mean of 19.72 and a minimum score as low as 9. In other words, only 49.3% (19.72/40) of the subjects' attempts in the CC Test were correct. As to RP tests, the students' performance was only among average, but they did make some progress along with the tests, with the means rising from 20.17, to 21.04, and to 22.43 (the full score for each test was 40). The students' scores in the CC Test and three RP Tests were shown in Table 4.

Table 4
Descriptive Statistics of the Scores of CC Test and RP Tests

	N	*Min.*	*Max.*	*Mean*	*SD*
CC Test	76	9	32	19.72	4.952
RP-1	76	11	27	20.17	3.442
RP-2	76	12	29	21.04	3.568
RP-3	76	12	32	22.43	4.142

Note. The full score of each test is 40.

The students' bad performance in the CC test was not surprising, though, since many researchers have pointed out that collocation is particularly difficult for EFL learners to master (e.g., Bahns & Eldaw, 1993; Farghal & Obiedat, 1995; Nesselhauf, 2003). Zughoul and

Hussein (2001), for example, found that only 50.08% of their subjects' total attempts in the multiple-choice task were correct, and similarly, only 16.61% of their answers in the translation task were acceptable. This indicated that Arabic EFL learners, even those who were English majors in college, faced difficulty in English collocations. Farghal and Obiedat's (1995) study showed that EFL learners' collocation competence lagged far behind their general vocabulary competence. Even though their subjects knew a lot of individual English words, they failed to make correct match of English collocations. In this study, the same problem was also found with the participants. For instance, they knew the words *heavy* and *smoker*, but they did not know the collocation *heavy smoker*. Instead, almost all of them chose the wrong combination *strong smoker*.

Next, the scores of the CC Test and the scores of RP Tests were analyzed by Pearson Correlation Coefficients to see if there was any significant correlation between students' collocation competence and reading proficiency. The results were given in Table 5.

Table 5

Pearson Correlation Coefficients on the CC Test and RP Tests

	N	*Pearson Correlation*	*Sig. (2-tailed)*
CC Test	76	1	.
RP-1	76	.327**	.004
RP-2	76	.282*	.013
RP-3	76	.242*	.035
SUM	76	.290*	.011

*Note. **Correlation is significant at the 0.01 level (2-tailed).*

*Correlation is significant at the 0.05 level (2-tailed).

As shown in Table 5, a significant positive correlation was found between the CC Test and RP-1 (r = .327, *p* = .004, α < .01). The result suggests that before the students received collocation instruction, a strong positive correlation existed between their collocation competence and reading proficiency. In other words, those who had better collocation competence also had higher reading proficiency, and those who were less competent in collocation did not perform well in reading proficiency. Similar findings were made in Lien's (2003) study, which showed that the relationships between the collocation test and every reading comprehension test were significant. She thus concluded that students who possessed better knowledge of collocation might be better equipped to comprehend reading texts.

The Performance of EG and CG in the RP Tests

To investigate the effects of collocation instruction, the scores of EG and CG in the three RP Tests were examined separately. Table 6 illustrated the descriptive statistics of the two groups.

As shown in Table 6, the mean scores of EG in the RP tests had improved from 20.28, to 21.55, and to 23.43, whereas the means of CG were 20.06, 20.47, and 21.33, respectively. It seemed both groups had made progress. To determine which group had made greater progress in their reading proficiency, the means of EG and CG were then analyzed by *repeated measure*. If EG students did improve more than CG students, it could be inferred that collocation instruction had enhanced EG students' reading proficiency. The outputs of repeated measure analysis were displayed in Table 7 and Figure 1.

Table 6

The Performance of EG and CG in RP Tests

		EG	CG	Total
	N	40	36	76
RP-1	*Mean*	20.28	20.06	20.17
	SD	3.30	3.63	3.44
RP-2	*Mean*	21.55	20.47	21.04
	SD	3.76	3.31	3.57
RP-3	*Mean*	23.43	21.33	22.43
	SD	4.45	3.50	4.14

Note. The full score of each test is 40.

Table 7

Tests of Within-Subjects Effects under Repeated Measure

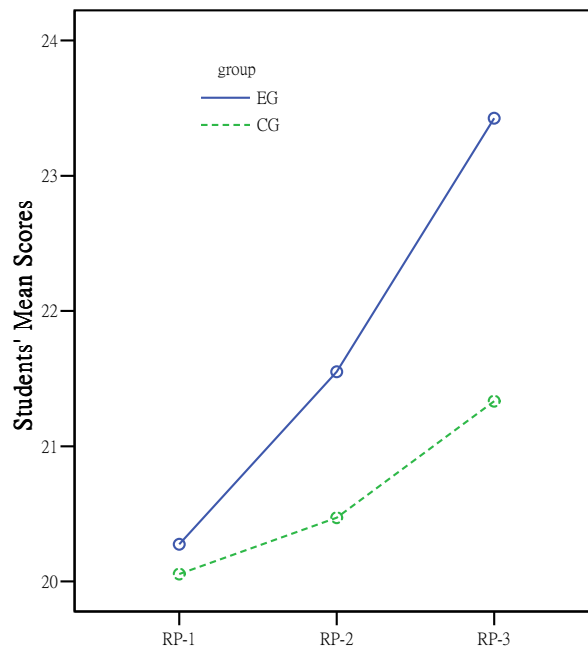| Source	Epsilon	Type III SS	df	Mean Square	F	Sig.	Observed Power
factor1	Sphericity Assumed	33.284	2	16.642	13.589	.000	.998
* group	Greenhouse-Geisser	33.284	1.658	20.069	13.589	.000	.994
	Huynh-Feldt	33.284	1.715	19.411	13.589	.000	.995
	Lower-bound	33.284	1.000	33.284	13.589	.000	.953

Figure 1
The Performance of EG and CG under Repeated Measure

In Table 7, the F value of (*factor 1* group*) was reported as 13.589, and the interaction effect (i.e. *Sig.* value) between factor 1 (i.e. RP Tests) and the group was .000 ($\alpha < .05$). This means the difference between EG and CG in the RP Tests had reached the significance level. This result confirmed that the performance of EG and CG in the RP Tests differed significantly. Furthermore, Figure 1, the output plot of repeated measure, exhibits that though both EG and CG had made progress in the three RP Tests, the growth of EG (the solid line) was significantly higher than that of CG (the dotted line). Since the

collocation instruction was carried out in EG rather than in CG, it appears that EG students had benefited from the collocation instruction and enhanced their reading proficiency. This result is consistent with Lin's (2002) and Tseng's (2002) findings, which showed that collocation instruction helped improve students' vocabulary development. The result also proved the assumptions proposed by several linguists (e.g., Cowie, 1988, Nation, 1997, Nattinger, 1988), who believed that collocation instruction was beneficial to the development of receptive language skills.

Responses to the Prestudy and Poststudy Questionnaires

The prestudy questionnaire contained 17 questions, while the poststudy questionnaire was made of 22 questions. Due to space limitations, only statistical results are given; the students' answers to the open-ended questions cannot be fully discussed here. Table 8 shows the students' responses to the questions concerning their change of vocabulary learning habits.

As shown in Table 8, before collocation instruction, only 20% students would often memorize word chunks, while 37.5% students seldom or never did so. Having received systematic and explicit collocation instruction for a semester, 55% of the same group of students had turned to memorizing words in chunks, and only 17.5% of them still had not done so. Chunking is essential in L2 acquisition. According to Nattinger and DeCarrico (1992), chunking can lower the burden of memorization and expand the learners' vocabulary repertoire. Ellis (1997) also asserted that unitizing the chunking mechanism was the key to language fluency.

Table 8

Percentages of the Students' Responses

to the Prestudy and the Poststudy Questionnaires

	Prestudy			*Poststudy*		
	Items	*Yes*	*No*	*Items*	*Yes*	*No*
Memorizing word chunks?	Q5	20%	37.5%	Q6	55%	17.5%
Paying attention to collocations?	Q7	22.5%	35%	Q4	55%	20%
Noticing usages in sentences?	Q8	22.5%	47.5%	Q5	52.5%	17.5%
Consulting dictionaries?	Q11	20%	55%	Q7	32.5%	35%
Using online concordancers?	Q13	7.5%	92.5%	Q8	20%	45%

Note. n = 40.

Similarly, in Q7 of the prestudy questionnaire, only 22.5% of the students said that they would regularly pay attention to the collocations of a new word, while 35% of them rarely did so. After collocation instruction, the condition was improved. As found in Q4 of the poststudy questionnaire, 55% of the students became frequently attentive to the collocations of a new word, and only 20% did not do so. As to noticing the usage of a new word in the example sentences, the proportions of *yes* and *no* were 22.5% versus 47.5% in the prestudy questionnaire. In the poststudy stage, however, the proportions were reversed to 52.5% versus 17.5%. In other words,

after collocation instruction, most students had learned to notice the usage of a new word in context. It was indeed not easy for students to get rid of their old vocabulary learning habits, but through constant practice and the teacher's guidance, at least some students became accustomed to paying attention to collocations. As Lewis (2000) and Hill (2000) pointed out, learning collocations was not so much about *time* as it was to do about *habit*. It was rewarding to see students moving on the right track.

Another two habits of vocabulary learning, consulting dictionaries and using online concordancers, were also compared. Before collocation instruction, only 20% and 7.5% of the students would frequently consult dictionaries and use the online concordancers. The percentages increased to 32.5% and 20% after collocation instruction. Although some researchers claimed that the effects of using concordancers in collocation instruction were remarkable (e.g., Chan, 2003; Kita & Ogata, 1997; Sun & Wang, 2003), the findings of the present study seem not very encouraging. Some students complained that concordancers are not user-friendly. The students had to make decisions on word classes and collocation types; besides, the output sometimes involved many unknown words, which often frustrated them. Another reason might be owing to the background of the participants. The previous studies (e.g., Chan, 2003) recruited high-proficiency learners as the subjects. They tended to be more autonomous than the vocational high school students in this study. Since learning with concordancers required more autonomous involvement, it was less favored by the students in this study.

Next, the students' perception toward collocation instruction is presented in Table 9.

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Table 9

**Frequencies and Percentages of the Students' Responses
to Questions 11 through 15 in the Poststudy Questionnaire**

Questions	SA.	Agree	Neutral	Dis.	SD	Total
Q11. Increasing	4	16	9	10	1	40
vocabulary size?	10%	40%	22.5%	25%	2.5%	100%
Q12. Enhancing	7	13	10	7	3	40
command of words?	17.5%	32.5%	25%	17.5%	7.5%	100%
Q13. Clarifying usages	4	15	11	9	1	40
of near-synonyms?	10%	37.5%	27.5%	22.5%	2.5%	100%
Q14. Improving reading	5	17	11	7	0	40
comprehension?	12.5%	42.5%	27.5%	17.5%	0%	100%
Q15. Increasing reading	5	12	16	7	0	40
fluency?	12.5%	30%	40%	17.5%	0%	100%

Note. n = 40; SA. = strongly agree; Dis. = disagree; SD. = strongly disagree.

The results indicate that the students, in general, held positive attitudes toward collocation instruction. As shown in Q11, up to 50% of the students agreed that collocation instruction helped increase their vocabulary size, while in Q12, about 50% of the students agreed that collocation instruction had enhanced their commands of words, but 25% did not think so. The results correspond to the proposals of many lexicographers. For example, Moon (1997) suggested that learning collocations and other multiword items could help lower memory burden and expand vocabulary repertoire. Nation (1990) also asserted that knowing how to use a word in correct patterns along with its collocations could facilitate the productive knowledge of a word.

In Q13, 47.5% of the students believed collocation instruction helped clarify the usages of near-synonyms. According to Lewis (1997, 2000), presenting the collocations of near-synonyms was more useful than explaining the differences between them. Rudzka, Channell, Putseys, and Ostyn (1981) and McCarthy and O'Dell (2005) also proposed that practice of collocation grids could help learners distinguish the nuances between near-synonyms. As to Q14, 55% of the students thought that their reading comprehension had improved through collocation instruction, and in Q15, 42.5% of them agreed that their reading fluency had improved. The students' positive perception was not unexpected, since many researchers have pointed out the benefits of learning collocations to the development of reading comprehension and reading fluency. Cowie (1988), for example, advocated that awareness of the prefabricated chunks in native speakers' speech could facilitate L2 learners' ability to encode language. When learners' attention was shifted from individual words to larger structures of discourse, they could conform to the expectations of speech communication more easily. In addition, Nattinger (1988) also claimed that through the process of piecing together the ready-made units of particular situations, learners had subconsciously acquired the ability to predict what patterns might be found in a certain situation.

The students' opinions for Q16 and Q17, concerning the most and the least favored collocation lessons, are presented in Table 10.

Table 10

Frequencies and Percentages of the Students' Responses
to Questions 16 and 17 in the Poststudy Questionnaire

Questions	L1	L2	L3	L4	L5	L6	Total
Q16. Lessons favored most? Why?	7 13.0%	8 14.8%	10 18.5%	12 22.2%	11 20.4%	6 11.1%	54 100%
Q17. Lessons favored least? Why?	7 16.3%	9 20.9%	6 14.0%	5 11.6%	7 16.3%	9 20.9%	43 100%

Q16 and Q17 were multiple choice items. In other words, students could choose more than one option. In total, 54 options were collected in Q16. Among them, the most favored lesson was Lesson 4, *Collocations without L1 Direct Translation,* followed by Lesson 5, *Collocations with Delexicalized Verbs*, and Lesson 3, *Collocations of Near Synonyms*. The rankings of Lesson 1, *The Notion of Collocation*, Lesson 2, *Tools for Learning Collocations*, and Lesson 6, *Collocational Errors*, were relatively low. As to Q17, the number of the total opinions was 43. Among them, the least-liked lesson went to Lesson 2 and Lesson 6, *Collocational Errors*. The second disfavored lesson went to Lesson 1 and Lesson 5. It seems that the students' opinions toward Lesson 5 were polarized, because it was chosen both as the second favored lesson and as the second disfavored one. Some students found it interesting to learn the collocations of delexicalized verbs, while others found it altogether confusing to learn them. For low-level learners, it is suggested that teachers simplify the content of

instruction and give students more time for practice.

To sum up, the students showed a positive attitude toward the effects of the collocation instruction. A great number of the students changed their vocabulary learning habits after learning collocation techniques, and most of them agreed that explicit collocation instruction helped expand their vocabulary repertoire, improve reading comprehension, and increase reading fluency. In fact, up to 72.5% of the students said that they would like to learn more about collocations if they have a chance.

CONCLUSION

The results of the study indicate that vocational high school learners in Taiwan do not have satisfactory collocation competence. Only 49.3% of their attempts in the multiple-choice task were correct. Their performance in the pretest of reading proficiency was relatively low, too. Statistical analysis exhibited a significant positive correlation between the students' collocation competence and their reading proficiency. After receiving explicit and systematic collocation instruction for a semester, the experimental group was found to have made significantly greater progress in reading proficiency than the control group. The result suggests that long-term explicit collocation instruction is beneficial to the development of reading proficiency.

After collocation instruction, the students became more aware of collocations, and most of the students held a positive perception toward collocation instruction. More than 70% of the students were willing to learn more about collocations in the future. The

pedagogical implications of this study include adding explicit collocation instruction to the English curriculum and providing systematic and repetitive practice of collocation techniques, such as underlining and recording collocations, consulting dictionaries and concordancers, blank-filling delexicalized verbs, and translating L1 and L2 non-equivalent collocations. It is suggested that future studies lengthen the instructional time and recruit learners of more proficiency levels. Such studies may also look into the effects of an individual collocation technique on the acquisition of certain types of collocations.

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APPENDIX A

Samples of Activities in the Six Collocation Lessons

1. Brainstorm for collocates of a word

On the board are circles with keywords such as '*job' and 'money'* in them. Work with your teammates and develop the circle into flowers with the collocates of the keywords as the petals. For example:

quit

a desk   job   hunt for

earn   money
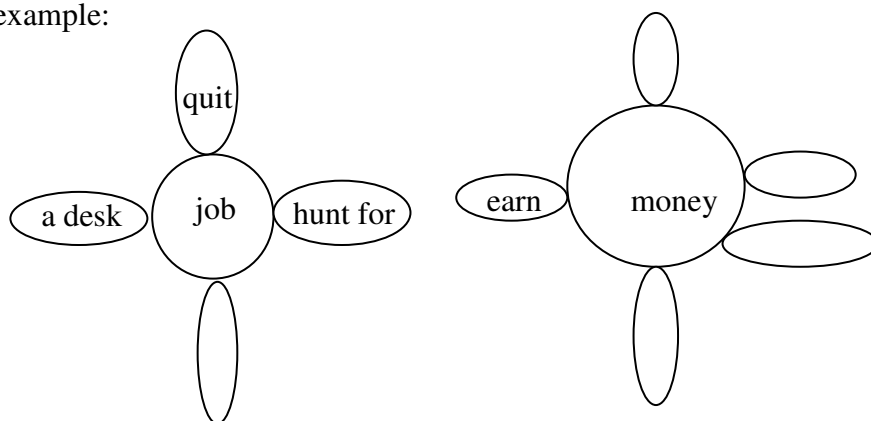
2. Use online concordancers

Show the website of the Virtual Language Center of National Taiwan Normal University (NTNU) to the students and illustrate how to use concordancers step by step.

Step 1: Key in the website

http://llrc.eng.ntnu.edu.tw/new_version/writing/Default.htm, and click the first tool bar.

Step 2: Enter the keyword '*temper*' for example and choose the part of speech of the keyword. Choose the part of speech and the

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position of the associated word. Then decide the distance between the keyword and the associated word (usually within three words). Finally, click 'search' and send out the query.

3. Fill in the blank with the correct form of *speak, say, talk,* **or** *tell*

1. Did you enjoy your trip? You must ____*tell*____ us all about it.
2. If I may ____*say*____ so, that doesn't sound a very good idea to me.
3. She gets very lonely since her husband died. She has nobody to <u>talk</u> to, you see.
4. I can't ____*speak*____ for anyone else, but I think it's a good idea.
5. If you think it would help, you know you can ____*talk*____ to me

about it at any time.

6. It's still a secret, you know. I hope you didn't _say_ anything to anybody.

7. Could you ___*tell*___ me the time, please.

8. He ___*talks*___ about football all the time. It gets very boring.

9. Is the baby ___*talking*___ yet?

10. Shh. Don't ___*speak*___. We don't want to wake the baby.

4. Fill in the blank with verbs *play, go* , or *do*.

1. ___*play*___ tennis   2. ___*do*___ athletics

3. ___*play*___ football   4. ___*do*___ exercise

5. ___*play*___ volleyball   6. ___*go*___ fishing

7. ___*go*___ jogging   8. ___*do*___ aerobics

9. ___go___ skiing

(adopted from Lewis' (2000) *Teaching Collocations*, p. 229)

5. Delete unacceptable collocations

1. BRIGHT   idea, green , ~~smell~~, child, day, room

2. CLEAR   attitude, need, instructions, ~~alternative~~, day, conscience, road

3. LIGHT   traffic, work, day, ~~entertainment~~, suitcase, rain, green, lunch

4. NEW   experience, job, food, ~~potatoes~~, baby, situation, year

5. HIGH   season, price, opinion, spirits, ~~house~~, time, priority

6. MAIN   point, reason, effect, entrance, ~~speed~~, road, meal, course

7. STRONG   possibility, doubt, smell, influence, views, coffee, ~~language~~

8. SERIOUS ~~advantage~~, situation, relationship, illness, crime, matter

(adopted from Lewis' (1993) *Implementing the Lexical Approach*, p. 94)

6. Complete collocation grid

Complete the following collocation grid by using collocation dictionaries. Mark the acceptable collocation with "+". Check the answers with your partner.

	a speed of 150 p.m.h	perfection	power	victory	a great success	one's goals	one's ambitions	one's hopes	what one set out to do
attain (to)	+	+	+	+	+				
gain			+					+	
achieve	+	+		+	+	+	+		+
accomplish						+	+	+	+

(revised from Rudzka et. al.'s (1981) *The Words You Need*, p. 43)

透過搭配詞教學提昇台灣高職學生之英文閱讀能力

摘要

本研究旨在探討台灣高職學生的搭配詞能力及其閱讀能力之間的關係，同時並檢驗長期、明確的搭配詞教學對於提昇學生閱讀能力的效益。高職學生一般而言英文程度較弱，但除了正規英語課程之外，他們還必須學習專業英語課程：例如觀光英語、護理英語、科技英語等，因搭配詞能力不足，學生往往很難習得專業英語中的固定用語和詞彙字串。研究人員根據 Lewis (2000) 和 van Lier (1996) 學者的理論設計了六個搭配詞課程，實驗組的學生在接受一個學期的搭配詞教學之後，閱讀能力進步顯著高於控制組的學生，統計結果也發現學生的搭配詞能力和閱讀能力呈現明顯的正相關。研究結果建議搭配詞教學應納入高職英語課程中，教師應長期明確地讓學生反覆練習搭配詞技巧以提昇其英語閱讀能力。

關鍵詞：搭配詞教學　閱讀能力　高職英語