**Appendix Ⅰ Vocabulary Knowledge Test-COLLEX**

*Instructions:* This part consists of 40 test items (1-40). Each test item contains three word combinations marked a), b), and c). Your task is to choose one of the three word combinations in each item. One of the three-word combinations in each item is a natural and frequent word combination occurring in the English language, whereas the other two are not.

Choose the word combination you think is the most natural and frequently occurring by ticking the box.

|  |  |  |
| --- | --- | --- |
| a. do damage  | b. make damage | c. run damage |
| a. turn out a fire  | b. put out a fire | c. set out a fire |
| a. hold discussions  | b. make discussions | c. set discussions |
| a. receive a cold  | b. achieve a cold | c. catch a cold |
| a. do a visit  | b. hit a visit | c. pay a visit |
| a. strike a pose | b. lead a pose | c. hit a pose |
| a. fell tears  | b. shed tears | c. raise tears |
| a. employ one’s rights  | b. exercise one’s rights | c. conduct one’s rights |
| a. grab an opportunity  | b. seize an opportunity | c. catch an opportunity |
| a. bring charges  | b. run charges | c. push charges |
| a. lend a complaint  | b. perform a complaint | c. lodge a complaint |
| a. make a conclusion  | b. pull a conclusion | c. draw a conclusion |
| a. commit a crime  | b. comply a crime | c. conduct a crime |
| a. tell a prayer  | b. say a prayer | c. speak a prayer |
| a. give a speech  | b. hold a speech | c. perform a speech |
| a. strike a deal  | b. set a deal | c. step a deal |
| a. go on a journey  | b. do a journey | c. pull a journey |
| a. keep one’s breath  | b. house one’s breath | c. hold one’s breath |
| a. direct an orchestra  | b. conduct an orchestra | c. control an orchestra |
| a. lose count  | b. drop count | c. pass count |
| a. take root  | b. make root | c. stick root |
| a. hold one’s balance  | b. keep one’s balance | c. last one’s balance |
| a. take one’s revenge  | b. make one’s revenge | c. obtain one’s revenge |
| a. keep a diary  | b. run a diary | c. tend a diary |
| a. brush shoes | b. polish shoes | c. tidy shoes |
| a. make apologies | b.do apologies | c. lay apologies |
| a. tie one’s fist | b. fix one’s fist | c. clench one’s fist |
| a. strike a fuse | b. knock a fuse | c. blow a fuse |
| a. show heed | b. pay heed | c. spread heed |
| a. make an escape | b. take an escape | c. draw an escape |
| a. lose faith  | b. drop faith | c. cut faith |
| a. perform a survey | b. commit a survey | c. conduct a survey |
| a. push a bike | b. lead a bike | c. press a bike |
| a. send judgement | b. pass judgement | c. set judgement |
| a. say one’s mind | b. speak one’s mind | c. talk one’s mind |
| a. spoil the fun | b. ruin the fun | c. destroy the fun |
| a. earn a purpose | b. win a purpose | c. serve a purpose |
| a. make friends | b. create friends | c. gain friends |
| a. make measures | b. take measures | c. stick measures |
| a. speak shop | b. say shop | c. talk shop |

**Appendix Ⅱ Vocabulary Learning Questionnaire**

*Instructions:* There will be two parts. First, you are asked to answer some questions on your English learning background, and then you are asked to answer questions about your vocabulary learning strategies with each item rated on a 7-point Likert scale.

There are no right or wrong answers. Your answers should be the ones that are right for you. Please read the questions carefully. It is important that you answer all questions. All your answers will be kept confidential and secret.

Fill in the information

**1. Your student number**……………………………

**2. You have been studying English** ………………

a. before 6 years old

b. from 6-11 years old

c. after 11 years old

**3. You have ………………session(s) of English class every week**

a. 1

b. 2

c. 3

d. 4

e. 5

**4. Your score of CET-4**………

a. below 425

b.425-500

c.500-600

d.600-710

e.I cannot remember

…………………………………………………………………………………………

Thanks for your answer! In the following part, you are asked something about how you learn English vocabulary. Question 1-17 uses a scale from “1 = absolutely disagree” to “7 = absolutely agree.” The rest of the questionnaire on strategies uses a scale ranging from “1 = extremely untrue of me” to “7 = extremely true of me.”

**(Beliefs about vocabulary learning)**

1. Once the English words of all my native language meanings have been remembered, English is learned.

2. The best way to remember words is to memorize word lists or dictionaries.

3. The purpose of learning a word is to remember it.

4. A good memory is all you need to learn a foreign language well.

5. Repetition is the best way to remember words.

6. You can only learn a large vocabulary by memorizing a lot of words.

7. The meanings of a large amount of words can be picked up through reading.

8. Learners should pay attention to expressions (e.g., pick up) and collocations (e.g., heavy rain; strong wind) that go with a word.

9. Learners can learn vocabulary simply through reading a lot.

10. The least a learner should know about a word is its spelling, pronunciation, meaning, and its basic usage.

**(Metacognitive strategies)**

11. I know whether a new word is important in understanding a passage.

12. I know which words are important for me to learn.

13. When I meet a new word or phrase, I know clearly whether I need to remember it.

14. Besides textbooks, I look for other readings that fall under my interest.

15. I wouldn’t learn what my English teacher doesn’t tell me to learn. (Reversed value)

16. I only focus on things that are directly related to examinations. (Reversed value)

17. I wouldn’t care much about vocabulary items that my teacher does not explain in class. (Reversed value)

**(Inferencing)**

18. I make use of the logical development in the context (e.g., cause and effect) when guessing the meaning of a word.

19. I use common sense and knowledge of the world when guessing the meaning of a word.

20. I check my guessed meaning in the paragraph or whole text to see if it fits in.

21. When I don’t know a new word in reading, I use my background knowledge of the topic to guess the meaning of the new word.

22. I look for explanations in the reading text that support my guess about the meaning of a word.

23. I make use of the grammatical structure of a sentence when guessing the meaning of a new word.

24. I make use of the part of speech of a new word when guessing its meaning.

**(Using dictionary)**

25. When I see an unfamiliar word again and again, I look it up.

26. When not knowing a word prevents me from understanding a whole sentence or even a whole paragraph, I look it up.

27. I look up words that are important to the understanding of the sentence or paragraph in which it appears.

28. I pay attention to the examples when I look up a word in a dictionary.

29. When I want to have some deeper knowledge about a word that I already know, I look it up.

30. When I want to know more about the usage of a word that I know, I look it up.

31. I check the dictionary when I want to find out the similarities and differences between the meanings of related words.

**(Taking notes)**

32. I make a note when I think the meaning of the word I’m looking up is commonly used.

33. I make a note when I think the word I’m looking up is related to my personal interest.

34. I make a note when I see a useful expression or phrase.

35. I write down the English explanations of the words I look up.

36. I write down both the meaning in my native language and the English explanation of the word I look up.

37. I note down examples showing the usages of the word I look up.

**(Rehearsal)**

38. I go through my vocabulary list several times until I remember all the words on the list.

39. I make vocabulary cards and take them with me wherever I go.

40. I make regular reviews of new words I have memorized.

41. When I try to remember a word, I say it aloud to myself.

42. When I try to remember a word, I repeat its pronunciation in my mind.

43. Repeating the sound of a new word to myself would be enough for me to remember the word.

44. When I try to remember a word, I write it again and again.

45. I memorize the spelling of a word letter by letter.

46. I write both the new words and their translation in my native language again and again in order to remember them.

**(Encoding)**

47. I act out some words in order to remember them better (e.g., jump).

48. I create a picture in my mind to help me remember a new word.

49. To help me remember a word, I try to “see” the spelling of the word in my mind.

50. I put words that sound similar together in order to remember them.

51. When words are spelled similarly, I remember them together.

52. When I try to remember a new word, I link it to a sound-alike word that I know.

53. When I learn new words, I pay attention to prefixes, roots, and suffixes (e.g., inter-nation-al).

54. I intentionally study how English words are formed in order to remember more words.

55. I memorize the commonly used roots and prefixes.

56. When I try to remember a word, I also try to remember the sentence in which the word is used.

57. I put words in set expressions or sentences in order to remember them.

58. I remember a new word together with the context where the new word appears.

**(Activation)**

59. I make up my own sentences using the words I just learned.

60. I try to use the newly learned words as much as possible in speech and writing.

61. I try to use newly learned words in real situations.

62. I try to use newly learned words in imaginary situations in my mind.

**Appendix Ⅲ Tables and Figures**

**Table A1** Spearman correlation coefficients between eight sub-scales of VLS and the vocabulary breadth/depth

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **VK** | **metacognitive** | **inferencing** | **rehearsal** | **encoding** | **taking notes** | **dictionary** | **activation** | **beliefs** |
| VB | 0.527\*\* | 0.526\* | 0.525\* | 0.436\*\* | 0.437\*\* | 0.474\*\* | 0.297 | .253 |
| VD | 0.475\* | 0.385\* | 0.503\* | 0.287\*\* | 0.315\*\* | 0.341 | 0.128 | .147 |

Note. VK=vocabulary knowledge, VLS=vocabulary learning strategies; VB=vocabulary depth, VD=vocabulary depth

\* p<0.05 \*\* p<0.01

**Table A2** Results of multivariate regression analysis with R

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Dependent | **Predictor** | **Estimate** | **S.E.** | **Z-value** | **P** | **R2** |
| VB | metacognitive | 3.140\*\*\* | 0.693 | 4.529 | 0.000 | 0.464 |
| inferencing | 1.903\* | 0.873 | 2.179 | 0.029 |
| dictionary | 2.191\*\* | 0.762 | 2.877 | 0.004 |
| taking notes | 0.381 | 0.793 | 0.481 | 0.631 |
| rehearsal | 0.647 | 0.917 | 0.705 | 0.481 |
| encoding | 2.081\* | 0.818 | 2.543 | 0.011 |
| activation | 2.1538\*\* | 0.838 | 2.570 | 0.010 |
| beliefs | 0.275 | 0.877 | 0.313 | 0.754 |
|  |  |  |  |  |  |  |
| VD | metacognitive | 0.658\*\*\* | 0.139 | 4.742 | 0.000 | 0.361 |
| inferencing | 0.113 | 0.175 | 0.647 | 0.518 |
| dictionary | 0.674\*\*\* | 0.152 | 4.418 | 0.000 |
| taking notes | -0.092 | 0.159 | -0.580 | 0.562 |
| rehearsal | -0.035 | 0.184 | -0.188 | 0.851 |
| encoding | 0.091 | 0.164 | 0.556 | 0.578 |
| activation | 0.417\* | 0.168 | 2.486 | 0.013 |
| beliefs | -0.041 | 0.176 | -0.235 | 0.814 |

Note. Predictors are eight sub-scales of vocabulary learning strategies.

\*\*\*p < .001. \*\*p < .01. \*p < .05



**Fig.A1** Standardized estimates of the regression model (output of lavaanPlot package in R)