Influence of contexts on vocabulary testing

GAO Chun-mei

(College of Foreign Languages, Zhejiang Gongshang University, Hangzhou Zhejiang 310012, China)

Abstracts: In vocabulary testing, whether to adopt context is a heat-debated topic. In the article, an experiment is designed to investigate what is the effect of zero context and sentence context on the vocabulary testing? And how do the different kinds of context in vocabulary affect the subjects' performance? The experimental result demonstrates that sentence plays an important role in helping text-takers to figure out the correct meaning or target words.

Key words: vocabulary testing; context

1. The importance of vocabulary testing in language testing

Vocabulary, one of the three elements in language, is of great importance in the whole system of language. Words are the basic building blocks of language, the units of meaning from which larger structures such as sentences, paragraphs and whole texts are formed. It is often said, "Without grammar, little can be conveyed; without words nothing can be conveyed." With regard to second language acquisition, vocabulary is an indispensable and basic part. Both teachers and learners spend lots of time and energy on vocabulary acquisition. From the millions of vocabulary textbooks in the libraries and bookstores, we can have a brief idea that how much importance we attach to vocabulary.

Then here comes the question: Do learners acquire vocabulary they strive to memorize? Do they know how to use those words? How should we test vocabulary acquisition?

1.1 Brief overview of vocabulary testing

As an important part of language testing, vocabulary testing has also been influenced by the development of linguistic theories. Constructivists insist that language is composed of a set of structures and all languages can be analyzed from structures and can be divided into to millions of small and independent linguistic elements. Learning of language is the acquisition of all these elements. Therefore, discrete-point test, in which every language skill is tested separately in different items, was adopted to test language competence and it was regarded as the most valid and effective way of testing.

Since the late 1960s, with the development of transformative and generative grammar theory in the field of linguistics, discrete-point test was criticized by many linguists, for they hold that language is not the total of every small knowledge and skill, but a indivisible entity. As a result, integrative tests such as dictation and interview were adopted.

Nowadays, with the further research and development on linguistics, linguists have discovered that language competence is a multi-element entity, which are different from the traditional linguistic elements and skill theory and the mono-element theory. Both the integrative tests and discrete-point tests have advantages respectively.

GAO Chun-mei (1980-), female, teacher of College of Foreign Language, Zhejiang Gongshang University; research fields: computer assisted language learning, teaching methodology.

Integrative test is fit for the testing of language using and it is high in validity, while the discrete-point test is advantageous at reliability, plausibility and setting norm. Therefore, the two kinds of tests are both adopted in current language tests.

1.2 What should be tested within vocabulary

Read pointed out that there have been two general approaches to discovering how well words are known: a developmental approach and a dimensions approach. The developmental approach tries to find out the development of a word's knowledge over time, usually by means of a scale, such as The Vocabulary Knowledge Scale (VKS). On the other hand, the dimensions approach attempts to list all of the competencies necessary to use a word in a native-like manner. The listing of the competences made by nation is regarded the best one:

(1) Spoken form of the word

(2) Written form of the word 3

(3) Grammatical behavior of the word

(4) Collocation behavior of the word

(5) Frequency of the word

(6) Stylistic register constraints of the word

(7) Conceptual meaning of the word

(8) Associations the word has with other related words

These above competences have come to know as types of word knowledge. When it is applied in the vocabulary testing, the aim of vocabulary testing is to test test-takers' mastery of these competences of target words.

According to this approach, the ideal way to investigate the vocabulary test items would be to measure what the testees actually know about the target words according to each word-knowledge type. But this is obviously unfeasible, because of the amount of time and other operational elements. Therefore, a revised version is to measure only selected word-knowledge types.

1.3 The ways vocabulary are tested

Usually vocabulary can be tested through the following ways: multiple-choice items, associated words, matching items, word formation test items, items involving synonyms, rearrangement items, and completion items and so on. Each form of testing has its own advantages and disadvantages. In the most public testing, multiple-choice items are preferred, for the convenience of scoring and its objectivity. No matter what way is adopted; vocabulary-testing items can be divided into context-independent items and context-independent items, when context is concerned. A context-independent vocabulary test presents words to the test-takers in isolation and requires them to select meanings for the words without reference to any linguistic context. While context-dependent vocabulary test is designed to assess the test-taker's ability to take account of contextual information in order to produce the expected response. In the context-dependent vocabulary tests, context can be sentences or passages.

2. The role of contexts in vocabulary testing

Many researches on vocabulary testing have been conducted by linguistics, among which the adoption of context in vocabulary testing is a hot debated question. Some linguists argue that vocabulary testing in context can offer a real situation for testees. Usually vocabulary can be tested in the following three aspects: meaning, spelling and usage. We can know whether the testees acquire the meaning and spelling of words in such tests without context, but the usage of words is not tested. By adapting context, the usage of words is tested in such real

situations. And we can know whether the testees acquire the usage of words or not.

At the same time, based on the feasibility of the study and research of vocabulary testing, other linguists think that the advantage of tests without context overweighs: it is an easy way to study learners' vocabulary acquisition in such tests; researchers can get highly reliable testing results within comparatively short time, and the explanation of results is more direct and convincing.

Generally speaking, more and more tests begin to test vocabulary in contexts. For instance, TOFEL test vocabulary by giving only a word to be tested and four choices of single word at the beginning. When more and more criticism appeared against such form, sentence context was adopted in TOFEL vocabulary text. From 1995, TOFEL began to test vocabulary in reading materials. Other standard test, such as CET, PETS, GMAT and IELTS, either adopt sentence context in vocabulary testing or paragraph context.

John Read said whether use zero context, sentence context or paragraph context should depend on specific situations and purpose of the tests.

Though more and more tests begin to adopt contexts in vocabulary testing, we can't say without evidence that vocabulary testing with contexts is better than that without contexts. Therefore, we conducted a comparison vocabulary testing in order to find out whether the result supports the wide-spread sentence-context vocabulary testing or the traditional zero-context vocabulary testing.

3. Experiments

3.1 Objective
The difference between zero contexts and sentence contexts are in vocabulary testing. The effect of sentence contexts is on vocabulary testing.

3.2 Research questions
(1) What is the effect of zero contexts and sentence contexts on the vocabulary testing?
(2) How do the two kinds of vocabulary tests affect the subjects' performance?

3.3 Research hypothesis
With the reference of sentence, testees perform better in test 2 than in test 1

3.4 Subjects
40 students from Zhejiang University Band-2 class, who are learning New College English (Book 5) and they are going to take part in CET-6.

3.5 Materials
Two sets of vocabulary test paper are designed and used as the materials. No contexts are given in text 1, which includes 20 multiple-choice questions. Subjects are required to choose the most similar meaning from the four single word items for the tested word. Test 2 adopts the form of sentence contexts. Subjects are required to choose the most similar meaning from the four single word items for the underlined word in the sentences. All the 20 tested words and the four items in each question are the same. In order to avoid that subjects memorize their answers in test 1 and use them when answering test 2, the order of the items in each question and the order of the twenty questions are rearranged in test 2. All the sentences in test 2 are chosen from the examples of Collins COBUILD English Dictionary, Oxford Advanced Learner's English-Chinese Dictionary, and Cambridge International Dictionary of English.

Subjects are required to do test 1 in approximately 10 minutes first. Their answers were collected before text

2 papers were handed out. They finished test 2 in about 15 minutes.

The subjects are required to write down their names in each paper in order to do individual comparison after the test.

The total score of each set of test paper is 20 (each item is 1 point). One point is given for one correct answer and no point is subtracted for the wrong answer.

The 20 words include 6 nouns, 6 verbs, 6 adjectives and 2 adverbs and they are chosen random from CET-6 vocabulary list.

3.6 Results

All the 40 papers were collected after the test and 38 papers are valid, for the other two are incomplete papers.

Among all the valid papers, it is found that 4 subjects' performance in the two texts have no change, which takes up 10.5% of the total number; 27 subjects performs better in text 2, which is 71%; and 7 subjects performs poorer in test 2, which takes up 18.4% of the total number.

Then we put the data into SPSS to do description analysis and correlation analysis. The analyses results are listed in Table 1 and Table 2.

Table 1   Descriptive statistics

	Mean	Std. Deviation	N
TEST1	10.1579	2.86192	38
TEST2	12.9737	2.68617	38

Table 2   Correlations

		TEST1	TEST2
TEST1	Pearson Correlation	1	.405*
	Sig. (2-tailed)		.012
	N	38	38
TEST2	Pearson Correlation	.405*	1
	Sig. (2-tailed)	.012	
	N	38	38

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

The result is that the scores of the two tests are statistically related, which shows that contexts do play an important role in influencing the subjects' performance.

3.7 Analysis and discussion

From Table 1, we can see that the mean score of test 2 is 2.8518 higher than that of test 1; and the standard deviation of test 2 is smaller than that of test 1.

Table 2 shows the SPSS analysis result of the two tests: the results of the two tests are statistically related, which indicated that the adoption of sentence context plays an important role in influencing the results of the tests. Therefore, we can draw the conclusion that context can affect test-takers' performance in a positive way. With the help of referring to sentence context, text-takers can comparatively easily get the right answer of the target words.

At the same time, there are still some problems.

First, when scoring the experiment papers, it is found that several text-takers did poorer with the help of context. One example is that in the testing of the target word "endeavor", the testee chose the correct answer in test 1 but the wrong one in test 2. This kind of phenomenon is not confined to only this case. Totally 6 cases of this phenomenon was found. Then comes to the question: why?

Second, after the experiment, during the talking with some of the text-takers, it was found that when they are doing such items, in which target words are comparatively easy, as " intervene", they didn't refer to the context.

Third, several text-takers said that when it comes to some difficult target words for them, they still can't get the right answer by referring to the short sentence context. Therefore, guessing is adopted.

From the problem listed above, it is found that though generally speaking we can get demonstrate the positive influence of sentence context on the text-takers' performance of vocabulary testing, there are still further development to be achieved for the process of experiments and more elements should be taken into account in the design of experiment. For example, a systematic interview after the tests should be adopted, though the designer has a casual talk about their performance of the text-takers after the texts. Meanwhile, the difficulty of the target words should be controlled carefully in the further experiments. In addition, the choosing of the context of the target words should be paid more attention to.

References:
Cambridge international dictionary of English. (2000). Cambridge University Press.
Collins COBUILD. (2002). *English dictionary.* Shanghai :Shanghai Foreign Language and Education Press.
Heaton J. B. (2000). *Writing English language tests.* Foreign Language Teaching and Research Press.
Oxford advanced learner's English-Chinese dictionary. (1997). The Commercial Press& Oxford University Press.
Read J. & Chappell C. (2001). A framework for second language vocabulary assessment. *Language Testing.*
Schmitt N. (1999). The relationship between TOEFL vocabulary items and meaning, association, collocation and world-class knowledge. *Language Testing.*

(Edited by SHI Li-fang and REN Li-ping)