An Empirical Research on Vocabulary Teaching under the Vocabulary Presentation Mode of Form-similar Clustering

Take Vocabulary Acquisition of Non-English Majors from Vocational Colleges as an Example

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Abstract—**This study makes an exploration of effects which are caused by different modes of vocabulary presentation on learning and retention of target words of Non-English majors from vocational colleges. Form-similar clustering and non-form clustering are two different modes of vocabulary presentation in vocabulary teaching this study probes into. The results showed that the vocabulary presentation modes of form-similar clustering and non-form-similar clustering affect learners` word learning and short time vocabulary retention. Mode of form-similar clustering vocabulary presentation makes strong interference with long term memorization of target words. What's more, the interference mainly comes from two aspects: one is that the target words interfere with each other, the other is that the negative transfer of learner`s prior knowledge.**

Keywords—form-similar clustering; mode of presentation; vocabulary retention

I. INTRODUCTION

Wilkins (1972:48) said that: "We are unable to express a lot of things without grammar; and we can express nothing without vocabulary." However, English learners have quiet low vocabulary accumulation efficiency with inflexible output mode (Liu Ling, Qin Xiaoqing, 2014). Domestic and foreign scholars have carried out researches one after another regarding this problem. Some scholars focus on learners' independent acquisition vocabulary and incidental vocabulary acquisition; some scholars focus on the efficiency of vocabulary teaching in the classroom, and discuss how to connect the way, time, type, quantity, frequency and sequence with the second language learners' reception mode, degree and psychological reaction, to produce the best learning effect (Zhang Ping 2006:24). The key stage of classroom vocabulary teaching is the presentation stage of vocabulary. Vocabulary presentation is to show the target word to learners in a certain way, including form, pronunciation, grammar features, syntax collocation, etc. The research on vocabulary presentation mode research started in the 1960s. The vocabulary presentation modes involved in the research can be divided into word list, image, animation, etc. according to the presentation medium; and can be divided into semantic clustering, theme clustering, etc. according to clustering mode, a multimodal vocabulary presentation also appears with the development of education technology. A lot of scholars have conducted comparative study on the above mentioned vocabulary presentation modes: Wang Xinpeng and Shu Dingfang have conducted comparative study on vocabulary presentation modes of semantic clustering and theme clustering; Liu Ling and Qin Xiaoqing have studied the vocabulary presentation modes of word list, diagram and text using the method of Latin square experimental design. Experts and scholars invest most of their energy into the above studies, yet they haven't attached sufficient importance to the form-similar vocabulary learning and retention. There is still a question in English vocabulary teaching in China, that is, should the teachers teach the form-similar vocabulary together or separately? The author search on the CNKI using keyword indexing, and find out 4 articles relating to form-similar words, and find out 11 using subject indexing method. But the author finds that only the four articles found out using keyword indexing are relating to this subject. It is clear that the form-similar vocabulary teaching hasn't received enough attention. Therefore, in order to solve this question, this research attempts to compare the influence of form-similar clustering vocabulary presentation mode and non-form-similar clustering vocabulary presentation mode on the vocabulary learning and retention of non-English majors from vocational colleges under the condition of adopting word list presentation mode, so as to make contributions to English vocabulary teaching in China.

II. RESEARCH DESIGN

Contrast experiment is an experiment conducted to highlight the object's characteristics, nature or state through the comparison of seeking commonness among differences by observing the similar or related things or phenomena that have been put together. This study adopts the method of contrast experiment to explore the influence and effect of form-similar clustering vocabulary presentation mode and the non-form-

similar clustering vocabulary presentation mode on the learning and retention of the whole vocabulary or the vocabulary of different classes.

A. Questions to Be Researched

This research aims to explore and proof the following questions:

- Under the presentation mode of word list, will the form-similar clustering and non-form-similar clustering vocabulary presentation modes affect the learning of the whole vocabulary or the vocabulary of different classes?

- Under the presentation mode of word list, between the form-similar clustering vocabulary presentation mode and non-form-similar clustering vocabulary presentation mode, which generates better vocabulary retention effect?

B. Being Tested

The subjects to be tested for this research are the 45 freshmen of a natural class of non-English majors from a vocational college of Hubei province. All of these students have past the College English Test level 3 (A) in December 2014. Because this research is to find out the influence on the learners' vocabulary learning effect by form-similar clustering vocabulary presentation mode and non-form-similar clustering vocabulary presentation mode under the contest of word list presentation, the subjects only need to have the basic vocabulary learning ability, so there is no special requirement for subjects.

C. Testing Tools

The tools adopted for this research are test papers, including the pre-test test paper, experimental group timely test paper and control group real time test paper, experimental group delay test paper and the control group delay test paper. The vocabulary knowledge scale of Wesche and Paribakht (1996) is adopted for the pre-test test paper to determine the target vocabulary. The principle of determining target vocabulary is the principle of knowing none.

The test paper measuring students' lexical meaning knowledge is adopted for both real time test and delay test. This test paper is designed by referring to the vocabulary knowledge test of Webb (2007). The test paper contents of in time test and delay test are the same except the order of the words, so as to test the influence on the vocabulary learning and retention effect by the two kinds of vocabulary presentation modes.

D. Determination of Target Vocabulary

The target vocabulary of this research is from the first and second volumes of Advanced Career English the subjects' are using, and uses the vocabulary knowledge scale of Wesche and Paribakht (1996). Then select the words that the subjects don't know. Finally, a total of 20 words are selected as target vocabulary, which are divided into two groups: one group contains the words with very similar spelling, totally 10 in 5 pairs, which the subjects do not know; another group of 10 words are not known by the subjects, and have no direct similarities in spelling. Carefully select the two groups of words, to make them have equal learning and retention difficulty, in order to test and compare vocabulary learning and retention effect.

E. Implementation of the Research

The experiment was carried out in 90 minutes of classroom time in two times to explore whether the vocabulary teaching presentation mode that is used frequently by the teachers, namely form-similar clustering presentation mode, will influence the learners' vocabulary learning and retention. Two groups are included in the experiment, namely the experimental group and control group. Offer vocabulary teaching to the experimental group subjects within 90 minutes in the class. The vocabulary presentation mode is the form-similar clustering presentation mode under word list presentation mode. The experimental group adopts the words of group 1 as the target vocabulary. The teacher offers students with spelling, pronunciation and phonetic symbol, word class, Chinese annotations as well as example sentence according to the word list presentation mode. Upon the target vocabulary learning is completed, conduct the in time test immediately (students are not told that there will be a test, to ensure students' natural learning). The testing time is unlimited. Then a week later, conduct the delay test for experimental group to test subjects' vocabulary retention (students are not told that there will be a delay test). Teach the control group with target vocabulary group 2 using the same method as experimental group, and then collect experimental data and analyze the data using quantitative and qualitative methods.

III. EXPERIMENTAL RESULTS AND ANALYSIS

A total of 37 subjects participated in the in time test of experimental group. But in the end, there were 33 effective papers after screening and eliminating those may be cheating. A total of 35 subjects participated in the in time test of control group, and in the end there were 28 effective papers.

A. Results and Analysis of In-time Test "Table I", "Table II"

TABLE I.   STATISTICAL OF REAL TIME TEST RESULTS OF EXPERIMENTAL GROUP

Score	0	1	2	3	4	5	6	7	8	9	10	Total (people)	Total score	Average score	Mode
Number of people	1	0	0	2	3	4	7	3	2	4	7	33	223	6.757	10

TABLE II.   STATISTICAL OF IN TIME TEST RESULTS OF CONTROL GROUP

Score	0	1	2	3	4	5	6	7	8	9	10	Total (people)	Total score	Average score	Mode
Number of people	0	0	1	0	1	1	0	3	7	7	10	30	251	8.37	10

From "Table I" and "Table II" we can see that the subjects generally get high score of vocabulary knowledge under two kinds of vocabulary presentation modes, indicating that word list presentation mode is a very effective way of vocabulary learning, and they can acquire considerable target vocabulary knowledge within a short period of time; the vocabulary acquisition effects are different under form-similar clustering and non-form-similar clustering vocabulary presentation modes: Under form-similar clustering presentation mode, the average value of subjects' vocabulary acquisition is 6.76, while under non-form-similar clustering presentation mode, the average value of subjects' vocabulary acquisition is 8.37. In the interview to the subjects after in time test, we can find that the subjects are more easily affected by other similar words under form-similar clustering presentation mode, for example, such phenomenon appears in the in time test of experimental group: in our selected target vocabulary of "stationary and stationery", "context and contest" in the test, they have been confused for 1 time and 3 times respectively. In time test is conducted immediately after the subjects' learning is completed, so that the subjects may have a clear vocabulary memory, but confusion still exist, indicating that form-similar clustering presentation mode has certain interference to the subjects' study. Such phenomenon doesn't appear in the real time test of control group, which also shows the advantages of non-form-similar clustering vocabulary presentation. The in time test results is the answer to the first research question.

B. Results and Analysis of Delay Test "Table III", "Table IV"

TABLE III.   STATISTICAL OF DELAY TEST RESULTS OF EXPERIMENTAL GROUP

Score	0	1	2	3	4	5	6	7	8	9	10	Total (people)	Total score	Average score	Mode
Number of people	2	0	3	4	7	4	5	0	1	1	1	28	123	4.4	4

TABLE IV.   STATISTICAL OF DELAY TEST RESULTS OF CONTROL GROUP

Score	0	1	2	3	4	5	6	7	8	9	10	Total (people)	Total score	Average score	Mode
Number of people	2	0	3	8	1	4	3	2	0	3	2	28	133	4.75	5

It can be seen from "Table III" and "Table IV" that the test results' average values of delay tests of experimental group and control group are very close. We cannot tell the role of non-form-similar clustering vocabulary presentation on subjects' vocabulary retention just from the average score. It also suggests that form-similar clustering and non-form-similar clustering have no great difference in terms of their influence on vocabulary retention, and has answered the second research question.

The test method of this delay test is to ask the subject write out the Chinese meaning of corresponding words that they know. Among the 28 delay test papers, 16 papers contain the confusion type error, accounting for 57% of the total, indicating that the subjects have been interfered by other form-similar target vocabulary or the vocabulary that have been acquired by the subjects, and most of the subjects have been interfered by other words with similar forms.

The errors made by form-similar words are listed in "Table V" and "Table VI" statistically, and we can find that there are two cases of word form interference: one is the infusion between target words. In the experimental group, because the form-similar clustering vocabulary presentation mode is adopted, so the target words are similar in terms of form. Such interference shaped like a clustering on the two words in the target vocabulary in two very similar, when they have this interference in vocabulary in the present process, and continue to vocabulary memory and as subjects constantly forgotten. This kind of interference is generated at the time of vocabulary presentation and continues to the vocabulary retention process, and it will become stronger along with the subjects' forgetting process. Another kind of interference is from the subjects' existing vocabulary accumulation, namely, the negative transfer of existing vocabulary knowledge, which is especially obvious in the control group, for example, the mutual interference of Conscience and consciousness appears four times, accounting for 21% of the total error. The non-form-

similar clustering vocabulary presentation mode is adopted for the control group, but the subjects are all have certain English foundation and accumulation. So the subjects' existing words which are similar to the target vocabulary will also have strong interference with their retention of target vocabulary, for example, the target vocabulary "Stuff" of this research is interfered strongly by the subjects' existing word "staff". The subjects take "stuff" as "staff" for 4 times, accounting for 25% of the total error.

TABLE V. DELAY ERROR LIST

Words made wrong by experimental group		Times	Words made wrong by control group		Times
Dairy and diary		4	contract	attract	3
				contrast	3
Stationary	stationery	2	Stuff and staff		4
	satisfactory	2			
	dictionary	1			
complement	compete	2	scarce	score	1
	compliment	2		scare	1
Conscience and consciousness		4	Expend and expand		1
Context and contest		2	Assume and consume		3
Total		19			16

TABLE VI. STATISTICAL OF VOCABULARY CONFUSION IN DELAY TEST

Error type Item	Error example of experimental group	Times	Error example of control group	Times
Confused with other target vocabulary	Conscience and consciousness	14		0
Confused with other non-target vocabulary	Complement and compete	5	Stuff and staff	16
Total		19		16

IV. DISCUSSION

In the in time test, the non-form-similar clustering vocabulary presentation mode shows obvious advantages in the acquisition of target words. According to different hypothesis theory, the greater the difference between the information, the easier to learn (Graik. F, L .Lockhart, 1972). Under non-form-similar clustering vocabulary presentation mode, there is great difference between target vocabulary in terms of form and meaning, which is not easy to confuse, and it is conducive to the subjects' distinction, memorization and retention of the target vocabulary in terms of forms and meanings. On the other hand, according to the interference effects, the more similar characteristics the target vocabularies have, the easier the interference effects to happen (Higa. J M, 1963). Under form-similar clustering vocabulary presentation mode, the target vocabularies are presented in the form of two very similar words. Because the similar words will have interference with each other, so they will interfere with the distinction, memorization and retention of the target vocabulary. Therefore, non-form-similar clustering vocabulary presentation mode is obviously better than form-similar clustering vocabulary presentation mode in terms of vocabulary learning.

In delay test, there is no significant difference between form-similar clustering vocabulary presentation mode and non-form-similar clustering vocabulary presentation mode in terms of vocabulary retention effect. What is worth mentioning is that two error types are found through analysis of the subjects' errors in this research: errors caused by mutual interference between target vocabulary and the negative transfer of subjects' existing vocabulary. As for the first type of error, it can be explained by interference effects. The second error is influenced by many factors, which can be explained by interference effects and the theory of negative transfer. It can be seen from Table 5, in the experimental group, subjects were mainly interfered by the mutual interference of target vocabulary. According to the interference effects, the more similar characteristics the target words have, the easier the interference effect to occur (Higa. J.M, 1963). The target words of experimental group are very similar, which has interfered with the participants' vocabulary memorization and retention. At the same time, both the experimental group and control group have been interfered by their existing vocabulary, namely negative transfer of knowledge. Odlin (2001) argues that language transfer is caused by the similarities or differences between the learners' target language and the previously acquired (not completely acquired) language. This suggests that the language knowledge and skills that the learners' have acquired (not completely acquired) will affect

the acquisition of target language. In this study, the subjects are all the students with certain English foundation, and they will be influenced by the previously acquired (not completely acquired) language inevitably. The transfer does not only exist in different languages, but also exists in the old and new knowledge of one same language. In the process of memorizing the target vocabulary, subjects transfer the previously acquired or not completely acquired knowledge into the memorization of target vocabulary. Such kind of transfer may be positive transfer or negative transfer. Positive transfer will promote the memorization of target vocabulary, while negative transfer will interfere with the memorization of target vocabulary, and result in errors.

It can be known from the above analysis that, when there is great similarity between target words, the target vocabulary memorization will be interfered strongly. But in the process of English learning, it is almost impossible to not encounter the words with similarity, which has raised higher requirements for the language learners and foreign language teachers. Learners must be attentive when learning a language, pay attention to small differences between vocabulary; and foreign language teachers need to take more effective language teaching methods to help learners make progress.

V.   CONCLUSION

This research discusses the influences on vocabulary learning and retention effects of non-English majors from vocational colleges by form-similar clustering vocabulary presentation mode and non-form-similar clustering vocabulary presentation mode based on the multi-dimensional vocabulary knowledge framework. Non-form-similar clustering vocabulary presentation mode is better than form-similar clustering vocabulary presentation mode in terms of vocabulary learning, and there is no significant difference between them in terms of vocabulary retention. The research also has found that form-similar clustering vocabulary presentation mode will generate strong interference with the subjects' vocabulary retention, and under the non-form-similar clustering vocabulary presentation mode, the interference factors of subjects' vocabulary retention mainly come from the negative transfer of the learners' existing knowledge.

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