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Vocabulary Teaching Experiment of Etymology Analysis Method and Relevant Thinking

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ABSTRACT: In order to verify that Etymology Analysis Method is more effective than Rote Memorization method in the case of English vocabulary memorization, we carried out a one-term vocabulary teaching experiment inserted in the course of regular teaching, but our teaching experiment statistics do not very well support our expectations. Reasonable explanation is as follows: a. To use any method skillfully, one always needs some accumulation; b. In our experimental teaching process, due to limited time in class, the words were shown to students quite hurriedly; c. The word memorization method that students are used to is fixed and not easy to change, and different from the one we tested and would recommend. Although this teaching experiment is still unsatisfactory, it offers significant feed-backs to our teaching in reality, both for teachers and students: great importance must be attached to vocabulary teaching in the course of English teaching and when it comes to presentation or memorization of words one must adopt appropriate methods, abandoning rote memorization. Analyzing the roots and affixes of the words, digging out as many words with the same root as possible, one can be expected to learn by analogy, which may ensure them to remember groups of English words at one time, greatly improving the efficiency of word memorization, rapidly expanding the vocabulary, and hence improving learning effect.

KEY WORDS: Etymology Analysis Method; Rote Memorization; English words; teaching experiment

1. FOREWORD

To learn English in non-English-speaking countries, word memorization is one of the unavoidable hurdles. Word memorization actually mainly means the memorization of the sound, shape, meaning and their interconnection, in which the sound and shape are only the form or the “shell” of the word, while the meaning is the soul of the word. After all, it is impossible for one to communicate when he or she only knows the sound and shape of a word. Therefore, the so-called word memory practically means one can recall its meaning when seeing its shape or hearing its sound. Chinese students mainly memorize English words by rote memorization, that is, they rely on repeating the

letter sequence of the words (such as p-a-r-t-i-c-i-p-a--n-t) and their meanings, forcibly having the whole sign and the meaning it represent "printed" in the brain, which can not even be regarded as a method, and is only an unscientific and therefore very inefficient way of memorizing words. Another way somewhat wiser than that is to try to establish block memory connections between sounds and shapes, namely par-ti-ci-pant, which is actually a memory pattern based on the relationship between word spelling and word pronunciation (syllabic structure), but this is still a mechanical memorization method, now that it does not touch the meaning. In

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contrast, etymological analysis is a memory method based on form-sense connection, by which the word can be cut into form-sense blocks: parti-cip-ant, with *parti-* being equivalent to *part*, meaning "part", *-cip-* meaning "grab" or "take", and *-ant* as a suffix indicating "person, actor". Understanding the composition structure of the words and the meaning of each part, can, in turn, bring some convenience to the memorization of the word form. After all, the whole symbolic unit is decomposed into relatively small memory units, namely the roots and affixes.

In the field of vocabulary acquisition, a theory of Depth of Processing Model was proposed by Craik & Lockhart in 1972, according to Zhang Na-na (2013), which expresses that the deeper the level of processing is, the better the memory effect.[1] Based on etymological knowledge, which includes diachronic knowledge about the origin and development of words, as well as knowledge of words components of roots and affixes, memorization method of Etymology Analysis is certainly a method of deep processing, more effective theoretically than rote memorization. Similarly, Chinese characters are composed of radicals and sides. In this case, learning Chinese characters by recognizing the components of Chinese characters should be better effective than rote memorization, and the roots and affixes that make up English words are essentially similar to the radicals and sides of Chinese characters. In this way, if appropriate prompts and guidance are given to students so that they have a clear understanding of the analogy of the composition of words and Chinese characters, the challenge of memorizing English words to Chinese students should be reduced to a great extent.

The above discussion seems reasonable, but it still remains only at the theoretical and subjective level. Although it is well known that comprehension-based memory is the longest and works the best, in practice, can etymology analysis method really bring the desired effect when teaching students English words in class? When we test students' word memory through dictation in class, how much can diachronic knowledge of word formation and synchronic knowledge of morphemes help students improve their scores? To this end, we carried out a one-term vocabulary teaching experiment inserted in the course of regular teaching in classroom.

2. EXPERIMENTAL DESIGN

The teaching experiment participants included 204 students from 6 freshman classes of non-English majors. At the beginning, we planned to divide the students into experimental group and control group, but after a little thinking, we thought that if operating this way, there would be various interference factors, which would prove not convenient to control, such as the uneven distribution of male and female students in 6 classes and the uneven individual English foundation. Later, the scheme was changed to take 6 classes as a group, and ten words of equal length (number of letters) were drawn from the word lists of three units to teach and later held dictation test. The words list used for the teaching experiment is as follows:

Unit 1	**Number of letters**	**Unit 2**	**Number of letters**	**Unit 3**	**Number of letters**
campaign	8	miracle	7	disseminate	11
proclaim	8	abundance	9	ubiquity	8
detriment	9	participant	11	proximity	9
ultimately	10	specifically	12	simultaneously	14
original	8	instruct	8	prevail	7
swashbuckling	13	determination	13	speculate	9
relentless	10	momentarily	11	appetite	8
estimate	8	immune	6	anthropology	12
arithmetic	10	perspective	11	precedented	11
reflection	10	complain	8	confine	7
Total	94		96		96

While teaching the words in Unit 1 we used the traditional teaching method of repetition in different forms; in the second unit, the etymology analysis method is used to teach the words, showing and explaining the etymology knowledge of the words to the class, especially the knowledge of the roots and affixes of which the words are composed. The method used in teaching words in Unit 3 is different from that used in Unit two only in that students were told that they would have a dictation after studying the words, for

we found in our pilot test we had carried out last semester, motivation is also an important factor affecting the effect of students' word memory. In order not to affect the course progress, we just "embedded" the vocabulary teaching experiment into the daily teaching process. That is, before selecting 10 words to lay emphasis on, we first carried out "routine" teaching activities on the word list of the current unit——leading the reading, explaining, and offering some example sentences when necessary. The specific operation process of the experiment is as follows:

Unit 1 (Method 1 in the following chart): select 10 words in advance, and then use three "traditional" methods —— asking students to recall two aspects of a word's pronunciation, spelling and meaning while showing them one, showing them on the multimedia screen the ten words' form and meaning and letting students do matching exercises, and inviting some students to go to the blackboard to have a dictation —— to strengthen their memory. Then, ask the whole class to sit separately, and give them a dictation on word form and meaning, telling them there is no need for them to cheat, for the marks they got would not be counted in as their grades.

Unit 2 (Method 2 in the following chart): select 10 words in advance, explain them by etymology analysis, and cite some other examples of the same root, to strengthen their memory of the connection between the composition and the meaning of the words. Then, ask the students to sit separately, and give them a dictation on word form and meaning, telling them there is no need for them to cheat, for the marks they got would not be counted in as their grades.

Unit 3 (Method 3 in the following chart): with the same operation mode as that of Unit 2, the only difference lies in that students were told beforehand they would be given a dictation after the explanation to detect their memory effect.

The result we envisioned is that students would get higher average dictation scores for the latter unit each time than for the former. One month after the last dictation, a "surprise attack" was made on six classes individually, according to each class's timetable, and the previous 30 words were read for them again in the dictation to check the students' long-term memory. In the process, there was a small mistake in the experiment, that is, the time used in teaching the words of the second and third unit happened to be 5-10 minutes longer than that of the first unit, due to the fact that the traditional method was used first and the etymology analysis later, and the time control of the former lacked reference. This time difference may have a certain impact on the experimental data.

3. ANALYSIS OF THE EXPERIMENTAL DATA

We marked the students' dictation of word form and meaning separately by percentage, excluding the students who had been absent from class in the experimental teaching process. The final available data were from 184 students, whose marks of the four dictations were extracted for processing and analysis. We examined two independent variables, i.e. three word teaching methods (or three word presentation modes) and gender, and two dependent variables, i.e. memory of word form and word meaning, and memory length. We used SPSS22.0 to conduct data analysis, and judged $\alpha = 0.05$ as significant level. When comparing two sets of data, in the case that the data meet the requirements of homogeneity of variance, we used Independent Samples t-Test, or, alternatively, we used chi-square test. For comparison between three sets, if the data meet the requirements of both normal distribution and homogeneity of variance, One-way ANOVA was used for data analysis and LSD was used for between-group comparison.

The results of examining the three vocabulary teaching methods are: in terms of short-term memory, the memory of word form was significantly different between the three methods ($F=16.35$, $df1=2$, $df2=549$, $p<0.001$), with the average score of method 3 being significantly higher than that of method 2 and 1, and the score of method 2 significantly higher than that of method 1, while there was no significant difference between the memory of word meaning in the three methods ($F=0.49$, $df1= 2$, $df2=549$, $p=0.616$). The long-term memory of word form and meaning is not obviously correlated with the use of the three methods and therefore is not included in this analysis. Data analysis results are shown in the chart below:

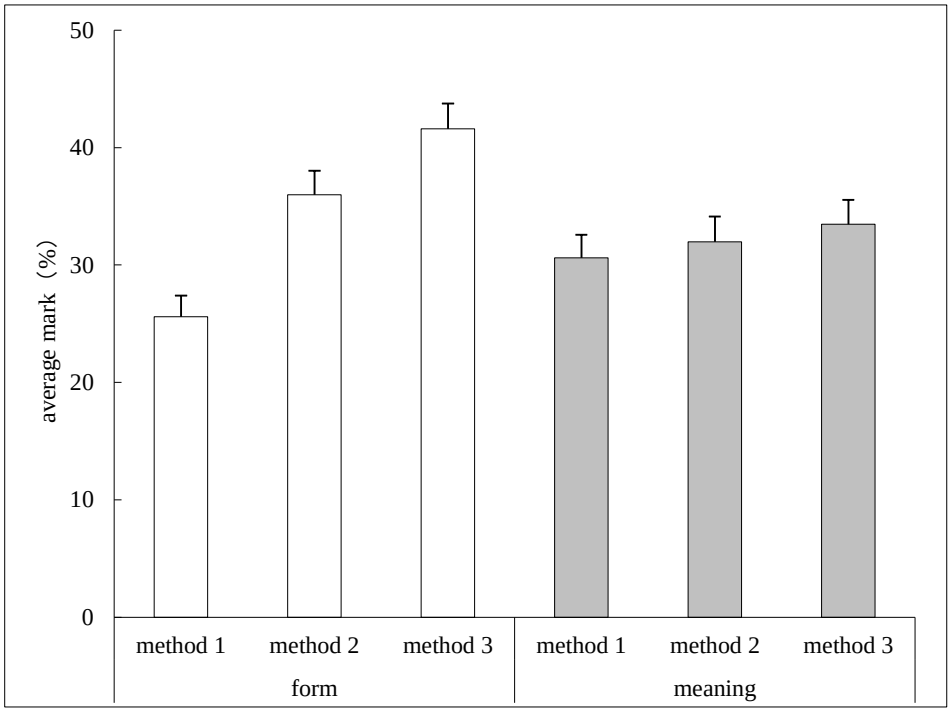

Chart-I Methods and Words Memory

The fact that there was no significant difference among the three methods in terms of short-term memory of word meaning made us feel quite surprised, as we believed that the etymology analysis should be helpful to students in memorizing the meaning, for in this method a word is taken apart into morphemes, and according to the Oxford dictionary a morpheme is defined as "the smallest unit of meaning that a word can be divided into". The possibly reasonable explanation for this "accident" is that, on the one hand, the etymology analysis method, just like any other method, can not be a perfect method. Just like there is no a panacea to cure all diseases, it can not help solve all the problems, producing immediate results. To skillfully use it, one usually needs a long time of accumulation, especially of knowledge of the same roots and affixes in different words representing different meanings. On the other hand, in our experiment teaching, constrained by time, the words were presented in a hurry. What's more, by this time, the students had become accustomed to the word memorization methods they had been using before, which are fixed and highly likely to be different from the etymology analysis method. Used hurriedly and for the first time, the etymology analysis method can not be expected to create obvious results.

The performance of short-term memory of word form is consistent with our prior expectation, the average student dictation score of every latter unit being indeed significantly higher than the former one, but it still cannot be confirmed that method 2 is better than method 1, as the impact of the small mistake (see the previous section) in our teaching experiment cannot be ignored; but the fact that the score of method 3 is higher than that of method 2 shows that strengthening motivation can really encourage students to better remember the form of English words in the short term. However, from our data, it can be seen that it seems to have no positive impact on the subjects' memory a month later.

In terms of memory of word form and meaning, the data analysis results were: short-term memory scores were not significantly different between form and meaning ($t=1.41$, $df=1102$, $p=0.160$), with the memory score of word meaning slightly lower than that of word form; but so far as long-term memory is concerned, memory of word form scored significantly higher than that of meaning ($\chi^2 =6934.08$, $df=13$, $p <0.001$), as shown in the following chart:

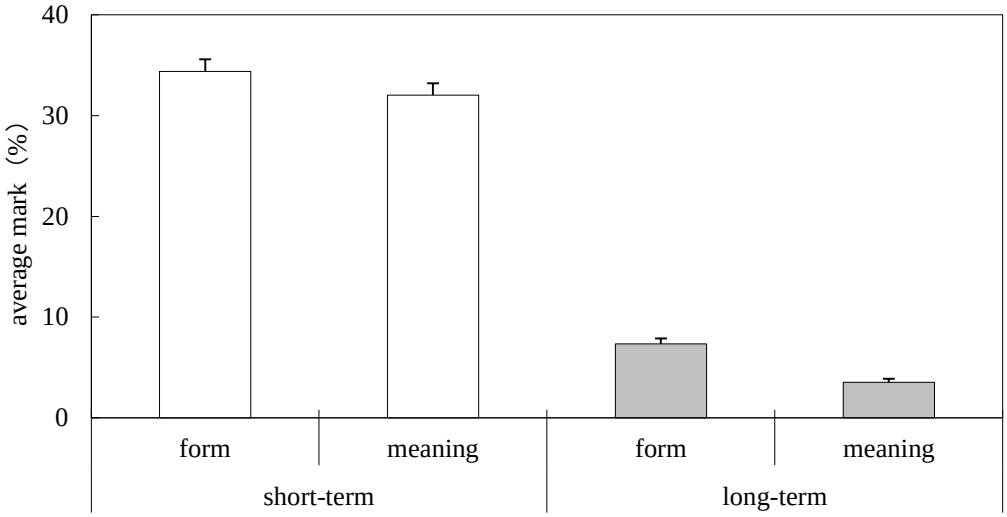

Chart-II. Time and Words Memory

This part of data is of no real significance, but only "revealed" once again such a fact that the students still fail to find out effective methods to help them memorize word meaning. It can be seen once again that the improvement of learning habits can not be achieved overnight.

According to our data, there are great differences between males and females in word memory. The results of data analysis are: scores of short-term word form ($t=6.00$, $df=182$, $p<0.001$) and scores of short-term word meaning ($t=5.80$, $df=182$, $p<0.001$) were significantly higher for females than for males, so were the scores of long-term memory of word form ($\chi^2=1821.48$, $df=9$, $p<0.001$) and word meaning ($\chi^2=3999.13$, $df=12$, $p<0.001$). This fits with the idea that females usually have a better language learning talent than males, or it is possibly just because they are more thoughtful, careful and spend more time in word learning.

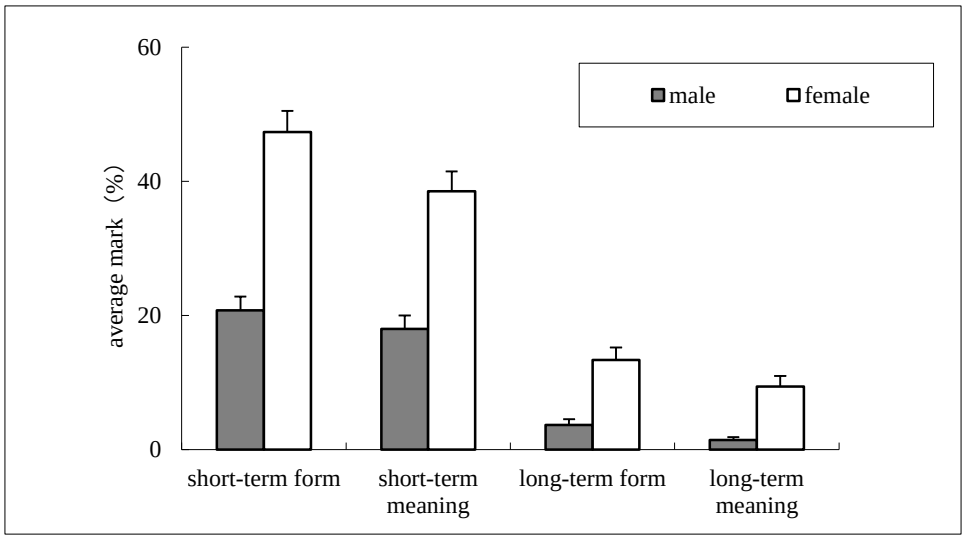

Chart-III. Gender and Words Memory

As for the comparison of long-term and short-term memory, our data analysis showed: significant difference could be seen in both word form ($\chi^2=2931.65$, $df=16$, $p<0.001$) and word meaning ($\chi^2=5177.66$, $df=20$, $p<0.001$), and unsurprisingly, short-term memory scores were significantly higher than long-term memory scores. This shows that almost all students do not pay attention to review and accumulation of words, and the memory loss rate is very high. At the same time, it also shows that the etymology analysis method is far from playing its due role in the process of memorizing words, for if use of the method really reaches the level of proficiency, students can really be expected to have photographic memory for many words, once and for all, which we believe would greatly curb their memory loss. Words such as *speculate* and *disseminate*, once understood by their semantic composition, memory cannot be easily lost.

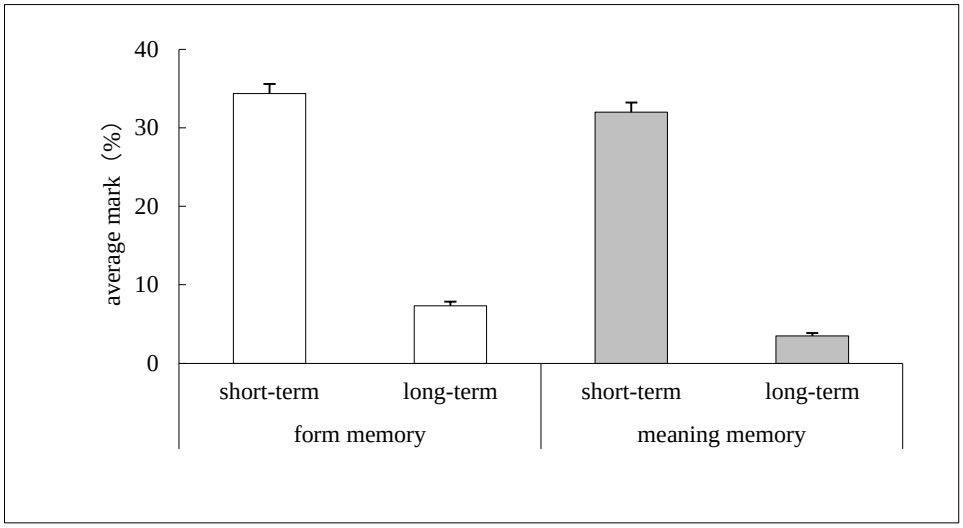

Chart-IV. Memory of Form and Meaning

In other words, the memory drop after a month is very prominent. Memory drop=short-term memory score－long-term memory score. The results were: memory drop of word form ($t=6.81$, $df=550$, $p<0.001$) and memory drop of word meaning ($\chi^2=939.85$, $df=24$, $p<0.001$) both showed that the score drop of females was significantly higher than that of males. We don't think that would mean that boys have better performance in maintaining their memory. At best it can only be seen like the case where “those poverty-stricken guys can't get poorer". After all, no matter from the point of long-term memory or short-term memory, whether in terms of word form or word meaning, females always scored significantly higher than males, demonstrating an A-lean-camel-is-bigger-than-a-horse effect.

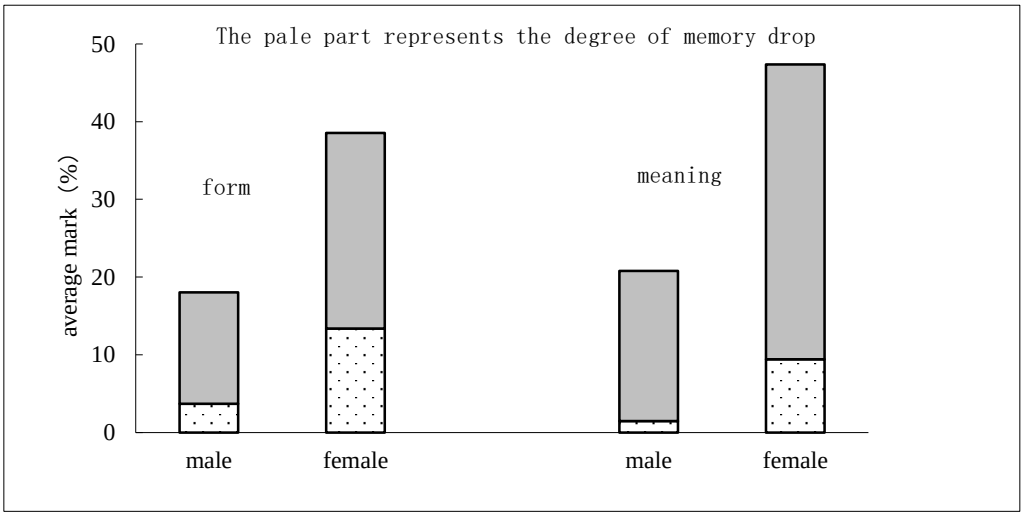

Chart V. Memory Drop

In short, although the teaching experiment is unsatisfactory, the above data analysis is of high realistic significance, whether for the teachers or the students: in English teaching great importance must be attached to vocabulary teaching and attention must be paid to methods choice when it comes to presentation or memorization of words, abandoning rote; the use of etymology analysis method is expected to be able to promote memory retention; at the same time when the use of scientific methods is not skilled, word memory is not once and for all; on the contrary, it is advisable to review the words regularly according to the Ebbinghaus forgetting curve, which, in our eyes, is a management strategy belonging to the macro level. The ancients did not create words "randomly" (but with a variety of motivations), why do we choose to learn words blindly (by rote)? Skilled use of the etymology analysis method can also help learners to memorize groups of words by analogy, greatly improving the efficiency of word memory, quickly expanding the vocabulary, then improving the learning effect and enhancing students' confidence in learning. That is, in terms of a specific single

word, it can help learners to remember it fast, deeply and firmly; in terms of "inter-word", it can help learners to remember more words with relatively less effort. After all, it is a scientific method that builds memory on understanding.

4. ENDING

Understanding the information of the diachronic evolution of words and the composition of the morphemes of words is equivalent to going deep into the soil of the target language culture, entering into its internal structure, and building the otherwise boring memorization on meaningful elements, which is a kind of deep processing. In contrast, rote learning only focuses attention on the external form of words, memorizing them just as dead symbols, which is a shallow processing. Nevertheless, the etymology analysis is not so easy to use. On the contrary, it is rather difficult for the following reasons:

First of all, English words are made up of letters, and the morpheme boundaries are not easy to see. For example, if one wants to correctly "cut" the word *participant* mentioned above, the novice may fall into confusion. Without a hard time to accumulate the relevant knowledge, it is impossible to obtain the "unique insight".

Secondly, sometimes, the same root or affix represents different meanings in different words.

Third, it is also common for different roots or affixes from different sources to express the same meaning.

Fourth, many roots and affixes have variants, for example, *-vy* and *-vey* are both variants of *-view*.

Fifth, sometimes, the same root or affix in different words has different pronunciation.

Sixth, some roots themselves are quite long, for example, the Greek root for "eye", *ophthalmo*[2]: 47.

Finally, the formation path of some words is rather complex. For example, in the word *achieve*[2]:45 one can hardly recognize the Latin root *-caput-* (head) contained in it.With so many difficulties, it gives people a feeling that "this method is unreliable", but these difficulties can be overcome. As long as more time is put in, practice can make perfect. In brief, this method is suitable for most words, although not for every word. With the same time input, this method has better results compared with rote memorization, and this teaching experiment has proven this to some extent.

REFERENCES

1) ZHANG Na-na. An empirical study of English learners of acquiring vocabulary by reading [J]. Foreign Language Teaching, 2013 (1): 73-77.
2) LI Shixue. Detailed English Etymology [M]. Hangzhou: Zhejiang University Press, 2013:45,47.