COGNITIVE APPROACHES TO IRANIAN EFL LEARNERS VOCABULARY LEARNING

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The current study deals with the issue of different approaches and strategies of L2 vocabulary learning and its effect on language proficiency and receptive and productive knowledge of learners. The emphasis was mostly on either explicit or implicit approaches or semantic mapping vs. other strategies including root memorization, imagery or glossing. 10 experimental studies in the field of vocabulary learning of EFL learners are presented briefly with the conclusion part at the end of each article to partly deal with the humans' brain structure and comprehensive and productive aspects of vocabulary learning.

Statement of the problem

The core component of language proficiency is vocabulary which provides the basis for a convenient communication. Many approaches and strategies from different theoretical frameworks were proposed by researchers for vocabulary learning in L2, but it is always a dilemma that which one is more effective in helping students learn as many as possible in the most economical way with long lasting retention of L2 vocabulary .It should be noted that learning strategies are sensitive to both the learning context and the learners' internal processing preferences. Also the language of a L2 learner is the deviant linguistic system actually employed by the learner attempting to utilize the target language. Such approximated system varys in character in accordance with proficiency level. Nemser (1971) variation is also introduced by many facts including personal learning characteristics and learners' exposure to target language, etc. So Even if we found the most effective approach we cannot prescribe it for other different cases .And that is one of the labyrinth of research in L2 learning compass. The best way would be to spot the needs , inclusion , back ground and social conditions alongside with the inner factors of learners .

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Review of the Literature

Implicit and Explicit Cognitive Processes in Incidental vocabulary Acquisition

A very general definition of incidental vocabulary acquisition characterizes it as the 'unintentional picking up of information' in situations where learners 'are not forewarned of an upcoming retention test for a particular type of information.However, such a general aim-oriented definition does not tell us anything about the underlying mechanisms of incidental vocabulary acquisition.

Therefore, it is worth looking in more detail at the processes involved in dealing with vocabulary that is eventually learned as the by-product of another activity—such as the reading-for-comprehension activity employed in the study to be presented here.Research evidence in the field of vocabulary acquisition has supported the idea of 'depth of processing' for a long time. This process depends on a widely but not universally accepted assumption about the important role of attention. Laufer and Hulstijn (2001) captured this by introducing the concept of 'involvement load', which is a combination of one motivational dimension (need) and two cognitive dimensions (search, evaluation).

The 24 participants in this exploratory study of incidental vocabulary acquisition were students in the Department of Romance Languages and Literature at an Austrian university. They were chosen based on their placement test results when entering the program for French studies. As a result of this approach, it can be assumed that the students had reached around the same minimum level of proficiency in French, even though there were still individual differences related to varying language skills and also the size of their French vocabulary. Most of the participants (21 out of 24) were female; only three were male.

In the pretest, the students were confronted with two different texts: a newspaper article and a literary text, both from genres that the students were familiar with from other activities in their language courses. In an individual session a few days later, each student was asked to read the two texts, summarize the content of the newspaper article paragraph by paragraph, and answer study questions about the literary text. The students were asked to speak their thoughts out loud

during the reading and comprehension process and were audio-recorded. A week after the reading exercise, the participants were tested on their retention of the new words and phrases.

The present study has investigated incidental acquisition of lexical items as a by-product of reading for comprehension. It has revealed that incidental vocabulary acquisition can result from both implicit and explicit cognitive processes. Even though the effect from implicit processes is limited, it is not negligible—statistical modeling reveals retention of a meaning in 11 per cent of cases in which learners are not dealing explicitly with a formerly unknown lexical item. However, it seems clear that explicit processing methods such as consulting a dictionary, inferring the meaning based on different associations (interlingual, intralingual, extralingual, and contextual), or a combination of these two approaches are more promising for learning. A detailed comparison of the different inferring procedures underlined the fact that a context-based top-down association is less effective for learning than are associations involving form and meaning features. Whereas extralingual cues tend to fade together with their immediate context, linguistic associations seem to provide a solid anchor for newly added or appended lexical items.

The effects of explicit and implicit instructional techniques (glossing semantic mapping, and imagery) on l2 vocabulary comprehension and production

The present study investigated the effects of explicit and implicit use of three presentation techniques (glossing, semantic mapping, and imagery) on Iranian EFL learners' vocabulary comprehension and production. Vocabulary learning has been a matter of long standing concern for researchers, and many studies have been conducted to explore how L2 words can be learned more effectively and how teachers can aid learners to achieve this goal. However, a few studies have compared explicit and implicit methods of teaching vocabulary. The present study is an attempt to partially fill this gap.

The participants were 175 intermediate learners at Marefat Language Institute in Qazvin, Iran. However, only 175 of them were included in the study after a placement test was administered. To make sure they had no previous knowledge of the target words, a pretest was administered. Those words which were already familiar to the participants were excluded from the post tests. The participants were then divided randomly into six groups, with each group receiving a semester-long instruction through one of the three methods of vocabulary presentation either

explicitly or implicitly. At the end of the treatment period, the participants' knowledge of receptive vocabulary was assessed through a multiple-choice test, and their knowledge of productive vocabulary was measured through a fill-in-the-blanks test.

The participants of the semantic mapping and imagery groups performed better than the participants of the glossing group on the comprehension test. The participants of the imagery group performed better than the participants of the semantic mapping group on the production test. The participants of the semantic mapping group performed better than the participants of the imagery group on the comprehension test. The findings of the study showed that there are significant differences among the effects of explicit techniques of vocabulary teaching (glossing, semantic mapping, and imagery) on L2 vocabulary comprehension and production. It was also found that implicit use of these techniques only affects vocabulary comprehension.

The two good points about this study is: 1) The comprehension of three instructional techniques and 2) The sample size which increases the generalization of the result. It can be concluded from the findings of this paper that it is better to teach words through explicit presentation techniques. It may be concluded that a combination of techniques should be used to make sure that both comprehension and production of vocabulary are adequately addressed.

Direct Teaching of Vocabulary After Reading: Is It Worth The Effort?

This experimental study evaluated the effectiveness of direct teaching of new vocabulary items in reading passages. The study compared vocabulary learning under a reading only condition (incidental learning) to learning that is aided by direct communication of word meanings (explicit learning). Three levels of vocabulary knowledge (form recall, meaning recall, and meaning recognition) were assessed using three tests (completion, L1 translation, and multiple-choice, respectively). As Laufer and colleagues found that recognition of form and meaning tended tohave similar scores, wewill only test ‘formrecall’, ‘meaning recall’, and ‘meaning recognition’ in our study. We will discuss the relative difficulty of these ‘levels of mastery’ in the Results and Discussion section. To explore the added value of explicit instruction in addition to incidental vocabulary learning from reading, the present study compares vocabulary learning from two methodologies:

1. Incidental learning from reading only (Read-Only)

2 .A combination of incidental learning from reading plus explicit instruction (Read-Plus).

Forty female students of Medicine at Umm Al-Qura University, Makkah, Saudi Arabia, participated in the study. These students were all native speakers of Arabicwho started learningEnglish as a school subject at the age of 12 (6–8 years of study).They were majoring either inaboratoryMedicine (N ¼ 21) or in Pharmacology (N ¼ 19) and were enrolled in a first-year English for Specific Purposes (ESP) module. In order to ensure a suitable level of difficulty, the reading passage was selected from the students' ESP reading coursebook The Language of Medicine in English (Tiersky and Tiersky 1992: 38–44). A 700-word extract was chosen and 20 low-frequency or medical words were selected which occurred only once in the passage.1 After being matched for difficulty (i.e. part of speech and length), the words were divided between Read-Only and Read-Plus conditions. Three paper-and-pencil tests were developed to measure the target items. First, a completion (fill-in-the-blanks) test was developed to assess form recall. Participants were presented with a concise meaning plus the first three letters of each target word and were asked to complete the form. Second, meaning recall was assessed using L1 translation. Finally, meaning recognition was measured using multiple-choice items (hereafter MC). Each item included five choices: the correct answer, three distracters, and one 'I do not know' option to reduce guessing. To assess pre-knowledge of the target items, participants took a translation test one week before the teaching session. The 20 items were intermixed with 40 high-frequency words in order to prevent alerting participants' attention to the target words. Results of the pre-test showed that 38 participants did not know any target item. Two learners knew one word each, and this was later adjusted for in the analysis. Thus, the learners started the study with no knowledge of the target items. In order to prevent any intentional learning of the target words, participants werenot told about any upcoming vocabulary tests. Copies of the passage were distributed, and learners were told to read it silently in ten minutes. Comprehension was then assessed with general and specific questions and words under the Read-Plus condition were directly explained. Immediately after the teaching session, three immediate post-tests (form recall, meaning recall, and meaning recognition) were administered. One week later, the same three tests were administered unannounced in the same order to assess retention of the target words over time (i.e. delayed post-tests).

In the Read-Only condition, the second reading served to consolidate administration the learning at all three levels of mastery. In the Read-Plus condition, there was a little attrition for form recall and even an improvement in meaning recall, although both of these were changes in rather small amounts of absolute learning. There was somewhat more attrition in meaning recognition, but this was the easiest level of knowledge, and it may be the case of 'easy come, easy go', i.e. shallower levels of knowledge which do not require substantial integration with the lexical network may be the most easily forgotten. Even here, the initial learning was largely maintained over the course of a week. Repeated exposure is one of the keys to vocabulary learning, and this study shows the value of this recycling combined with explicit instruction. Moreover, if consolidation is not pursued, the initial learning may all be in vain. These results follow the general pattern that receptive knowledge (i.e. recognition) is easier to acquire than productive knowledge (i.e. recall). They also highlight the importance of repetition in building up to a recall level of mastery, as the minimal exposures in this study only resulted in modest recall gains. Moreover, the results highlight the importance of word form. While many teachers focus on meaning when teaching new words, in many cases, it may well be the form of the word which is the most difficult aspect to learn.

Vocabulary with no explicit emphasis on it might redound vocabulary knowledge but for pedagogical purpose it is stabilized that this incidental learning is not enough. Lexical researchers have proposed incidental learning vocabulary as a by-product of other learning activities such as reading or listening. Studies show that incidental learning plus explicit follow-up can be as effective approach as explicit. The point is incidental vocabulary acquisition is positively correlated with repeated exposures. The author of this article underlined the importance of word form. While the prime effort of learners of a second language vocabulary is to understand as well as memorize the words meaning focusing on form of the word is equally important.

Memorization Versus Semantic Mapping in L2 Vocabulary Acquisition

This study investigated the effects of two cognitive strategies, rote memorization and semantic mapping, on L2 vocabulary acquisition. During the past 30 years, there has been strong opposition to using memorization as a language learning strategy in favour of more

communicative, constructivist, and thought-oriented strategies. The advocates of such a position argue that memorization is an outdated, shallow, and counterproductive educational practice and does not lead to deep learning. Therefore, a large number of other strategies that demand a deeper level of data processing have been introduced and implemented in order to enrich L2 learners' word knowledge. This paper compares the effectiveness of two cognitive strategies, namelymemorization and semantic mapping, in helping L2 learners improve their vocabulary storage.

Fifty-two intermediate Iranian female learners between 19 and 24 years of age participated in this study. They were all sophomore English Translation students taking the Reading Comprehension III course at Islamic Azad University, North Tehran branch. It is worth mentioning that students majoring in English Translation study only general English during the first two years of their education and then start their translation courses. Therefore, they are considered to be typical EFL learners. After the administration of a homogenizing proficiency test, the remaining 38 participants were divided into two experimental groups, one employing rote memorization of word lists and the other semantic mapping for vocabulary acquisition.

Three instruments were used in order to collect the required data for this study:

1.A standardized multiple-choice proficiency test consisting of 30 vocabulary items, 30 grammar items, and 20 reading items was used to homogenize the students.

2.A multiple-choice vocabulary pre-test to determine the students' vocabulary knowledge prior to the treatments.

3.A multiple-choice vocabulary post-test to measure the effects of cognitive strategy use on improving vocabulary knowledge.

The classes had two different teachers; however, both were experienced EFL teachers and had been carefully trained in the employment of the related techniques in their classes. Both groups studied the same textbook, focusing on reading comprehension during the four-month treatment period. The classes were held twice a week, for 90 minutes each session. At the end of the treatment, a multiple-choice post-test of vocabulary was given to both groups in order to measure their word knowledge. The vocabulary post-test was based on the words that the participants had

studied during the treatment. It is worth noting that the students were aware that they would be tested on their knowledge of the taught words but they were unaware of the exact time of the test.

The results of this study indicated that rote memorization, as a so-called outdated cognitive strategy, and semantic mapping, as a more thought-oriented one, did not produce statistically significant changes in the participants' word knowledge in comparison to each other as measured by multiple-choice tests at the end of the treatment. As mentioned before, convictions are strong among many language professionals that contextualized vocabulary learning is more effective than learning words in lists. In this study, despite all the time and effort devoted to constructing the semantic maps, the use of this strategy did not produce a significantly different impact on improving the vocabulary knowledge of the participants compared to rote memorization. There might be some reasons for this finding. First of all, this study was conducted in Iran, where the dominant educational system is more or less memorization oriented; thus rote memorization of word lists is a more familiar strategy to students than semantic mapping. Another possible explanation for the effectiveness of list learning could be that it is not necessarily shallow. As Laufer (op.cit.: 23) puts it, 'when facing a memorization task for an upcoming test, learners may try their best and employ a variety of mnemonic techniques to reinforce word in memory'. Third, knowing by heart through repetition *might have* engaged the students' WM in further processing of the memorized words over time.

Semantic Processing and Vocabulary Development of Adult ESL Learners

The prominent role of vocabulary knowledge in learning a foreign/second language extends beyond comprehension to influencing learners' performance in speaking, listening, and writing (Nation, 2001). The last few years, however, have witnessed an increasing interest in direct vocabulary teaching for its own sake in both L1 and L2 (McCarthy, 1990; McKeown& Curtis, 1987; Taylor, 1990; Vellutino, 1991). Most of recent work on vocabulary acquisition has focused on either the effects and uses of different vocabulary instruction techniques (Hague, 1987; Nunan, 1991), or on the strategies involved in learning new vocabulary items (Chamot, 1993; Cohen, 1990; O'Malley &Chamot, 1990; Oxford, 1990). This experimental study investigates

the effects of a semantic processing technique— semantic mapping—on the recognition and production of new L2 vocabulary.

Two intact intermediate II classes from the English to speakers of other languages (ESOL) program in a Montgomery Country public school in Maryland were chosen for this study. One class was assigned as a control group (henceforth CG), and the other was the treatment group (the semantic mapping group, henceforth TG). The main emphasis in these ESOL classes is oral communication. Listening exercise and grammatical forms are normally focused upon in relation to the oral exercises. Reading instruction is based on a weekly ESL newspaper (*News for You*) that students receive individually. Factors which were considered in the selection of the three articles used in instruction were: (1) articles the students had not previously read; (2) probability of new vocabulary; (3) content which would be appropriate for semantic mapping, and (4) similarity in length (1st article 307 words, 2nd article 316 words, and 3rd article 261 words). In order to test the effects of instruction, a pre-test and post-test design was used. The test consisted of 24 vocabulary words in two exercises. The first task was a matching test, which was used to assess the participants' receptive knowledge of the target words.

Overall, though the results of this study were less than conclusive, especially with production retrieval, it can be concluded that semantic mapping may have helped enhance vocabulary development of this particular adult ESL group. Thus, semantic mapping may still be a beneficial pedagogical devise for L2 vocabulary instruction. In particular, semantic mapping can be relatively more effective with receptive retrieval than productive retrieval.

Semantic mapping as discussed in "memorization versus semantic mapping in L2 vocabulary acquisition" is "a graphic arrangement showing the major ideas and relationship in text or among word meanings". (Sinatra, Stahl-Ge-make &Berg , 1984 , p.22) Semantic mapping has two components. The first one is receptive retrieval process and the second one is productive retrieval process. In this article the writer tries to test the effect of semantic mapping on this two components. The theoretical framework of semantic mapping is the schema theory (Hague, 1987) which explains how words are stored and represented in the mental lexicon. According to this theory, words are attached to each other as verbs with three dimensions: phonological,

orthographical and encyclopedical . (Mc Carthy,1990) Results of this study modulate with the above mentioned article which means there was not a significant statistically difference among control group and experiment group . But the prominence of this study is its emphasis on productive retrieval of vocabulary knowledge gained from semantic approach.

Enhancing Vocabulary Retention through Semantic Mapping:A Single-Subject Study

Different techniques have been utilized throughout the history of TESOL to help learners remember words more efficiently. Such techniques can be considered on a general continuum with two extremes of being mechanical versus meaningful. A simple example of the most mechanical type of techniques is the list of words with their L1 equivalents. A good example of a meaningful technique, on the other hand, is "inference" or "guessing" techniques where learners are asked to infer, or at other times guess, the meaning of a certain word in a context. Semantic mapping has both a meaningful and a mechanical aspect: It is meaningful in the sense that words are presented according to the meaning-based relationships among them, and it is mechanical in the sense that the words still need to be practiced out of a context. This paper makes an attempt to show the effectiveness of semantic mapping, as a vocabulary presentation technique in learners' vocabulary retention in the framework of a single-subject study. Semantic mapping falls under the general category of graphic organizers and is used in different subject areas in order to help learners understand relationships and form concepts about broader topics.

The researchers focused on a 45-year-old male learner, learning English as a foreign language at the pre-intermediate level. He held an MA in law, and his main purpose of learning English at this age is to get prepared for the TOEFL exam (which serves as a prerequisite for doctorate degree applicants of Iranian universities). He had never taken part in any serious public English classes before, and his experience of studying English was limited to the regular English courses he had passed during school and college. The main textbook the learner studied was *True to Life*. The participant was exposed to English only during the class time (three two-hour sessions per week). The whole study consisted of the final 30 minutes of two separate sessions for presenting the new words and the beginning 25 minutes of two other sessions for testing. In the first session of the study, the learner was presented with 21 new words without directing his attention to the possible relationships among them. It is worth mentioning that the interval between the

presentation session and exam session in both phases were the same, and also the same procedures were used to define or illustrate the meaning of the new words. As for the assessment part, in the next session, the learner was asked to write as many words as he remembered with their meanings on a piece of paper.

The results of this study indicate that the use of semantic mapping improved the learner's ability to remember the words and their definitions better. This is in line with many other similar studied reported in the literature, such as Morin and Goebel (2001), which confirms the effectiveness of semantic mapping as a strategy that helps beginner and intermediate learners recall words better.

This paper also implies the implicit and explicit vocabulary learning with the same findings of different studies reported in the literature. Being a single-subject study reveal new perspective in the field of learning vocabulary through semantic mapping. The semantic mapping approach is noteworthy because of its cognitive feature. Although the generalizability of this study is under question, but it unfolds good quantitative and qualitative information of effect of semantic mapping in L2 learners of English .

Does Studying Vocabulary In Smaller Sets Increase Learning?

The Effects of Part and Whole Learning on Second Language Vocabulary acquisition

Research on the frequency effect suggests that the learning of second language (L2) vocabulary (e.g., Pigada& Schmitt, 2006 ;Zahar, Cobb, &Spada, 2001) as well as of the L2 in general (e.g., Ellis, 2002 ; Hulstijn, 2002 ; Larsen-Freeman, 2002) increases as a function of frequency. This raises the question of how the encounters of a given L2 word should be distributed to optimize L2 vocabulary learning. Previous studies have examined the effects of two types of distribution: part learning and whole learning. In whole learning, the materials to be learned are repeated in one large block, whereas, in part learning, the materials are divided into smaller blocks and repeated.

The present study examined the effects of part and whole learning on the acquisition of second language (L2, English) vocabulary. In whole learning, the materials to be learned are repeated in

one large block,whereas, in part learning, the materials are divided into smaller blocks and repeated. The present study aimed to investigate the effects of part and whole learning on L2 vocabulary acquisition in two experiments while isolating the effects of the part-whole distinction and spacing.

With the limitations of the existing studies in mind, Experiment 1 investigated the effects of part and whole learning that were matched in spacing. Specifically, the following three block sizes were compared: block sizes of four, 10, and 20 words. The block size of 20 treatment was whole learning, and the block sizes of four and 10 treatments involved part learning. The participants were 95 fi rst-year Japanese students at a university in the Kansai area of Japan. Immediately before the treatment, a receptive recall test was given as the pretest. Productive and receptive tests were administered in that order as the posttest. The posttest was administered immediately and 1 week after the treatment. The participants were given no prior notice of the delayed posttest.

Results of Experiment 1 indicated that, although part learning produced more correct retrievals than whole learning during the learning phase, there was little difference in their posttest scores. The findings are at odds with most previous studies on part and whole learning, which have found whole learning to contribute to greater learning than part learning (Brown, 1924 ; Crothers &Suppes, 1967 ; Kornell, 2009 ; McGeoch, 1931 ; Seibert, 1932). There are three explanations for the contradictory results. In all earlier studies where target words were encountered more than once, the part-whole learning distinction and spacing were confounded. Another possible cause for the lack of statistical significance may be the relatively limited range of block sizes used. A third explanation is that the task difficulty was too high in this experiment. Previous studies have suggested that whole learning may be superior to part learning only when difficulty is low (Crothers &Suppes, 1967 ; Nation, 2013).

The purpose of Experiment 2 was to test the three hypotheses put forward in the previous section. If all three hypotheses are supported, it would suggest that (a) spacing has a larger effect on learning than the part-whole distinction and (b) the lack of statistical significance in Experiment 1 was because part and whole learning had equivalent spacing. By testing the three

hypotheses, Experiment 2 may allow us to examine the relative importance of the part-whole distinction and spacing on L2 vocabulary learning. The participants were 78 first-year Japanese students at the same university as in Experiment. The methodology of Experiment 2 differed from that of Experiment 1 in three respects. First, although the target words were practiced in both receptive and productive recall formats during the treatment in Experiment 1, Experiment 2 involved only productive retrieval. This was done to control the position of initial productive retrieval during learning. In Experiment 2, therefore, the initial position of productive retrieval was controlled by taking out receptive retrieval and using only productive retrieval.

Experiment 2 demonstrated the superiority of the four-item part and whole learning groups over the control group. The advantage was particularly large on the delayed productive posttest, on which the experimental groups significantly outperformed the control group, producing large effect sizes. The difference between the experimental groups was relatively small regardless of the posttest, scoring system, or retention interval, mirroring the results of Experiment 1. The findings of the current experiment seem to support all three hypotheses put forward at the end of Experiment 1.

The purpose of this study was to examine the effects of part and whole learning on L2 vocabulary acquisition. Experiment 1 found little difference between part and whole learning in their effectiveness. Experiment 2 demonstrated that whole learning is more effective than part learning only when the former has larger spacing. Taken together, the two experiments indicate that, (a) as long as spacing is equivalent, the part-whole distinction has little effect on learning (hence, four-item part = 10-item part = 20-item whole in Experiment 1 and four-item = whole in the part-whole learning distinction (hence, four-item part = whole > control in Experiment 2). These findings have value because they suggest that the results of the earlier studies may be attributed to spacing ratherthan the part-whole distinction. Pedagogically, the findings indicate that introducing a large amount of spacing is more important than choosing between part or whole learning.

The effect of pat and whole learning is the concern of different fields and most of the studies on part and whole learning have been conducted in the field of psychology . Spacing is a concept in

part-whole learning which is the interval between learning opportunities of a given item ; and as studies in vocabulary leaning shows larger spacing generally leads to better long term retention than shorter spacing. This phenomenon is known as the distributed practice effect . As concluded from the above article , it is more beneficial to pay attention to spacing rather than the part-whole learning distinction , but one benefit of part learning could be that it motivates learners by increasing learning phase . Though a disadvantage could be what Kornell (2009) refers to as "an illusion of effective learning " , which causes learners to stop studying before lexical items are actually acquired , resulting in under learning .

A Longitudinal Study of Receptive Vocabulary Breadth Knowledge Growth and Vocabulary Fluency Development

This article reports results of a longitudinal study of vocabulary breadth knowledge growth, vocabulary fluency development, and the relationship between the two. In a large-scale project, Alderson (2005) used a new language diagnostic system, DIALANG, to evaluate how a multitude of factors, including vocabulary breadth and depth knowledge, are relatedto language performance. Alderson's team found that vocabulary breadth knowledge is significantly correlated with performance in reading (.64), listening (.61), writing (.70), and grammar (.64), accounting for about 36–49% ofthe variance in language performance.In addition to vocabulary breadth knowledge, vocabulary fluency, that is, the speed of access to vocabulary knowledge, has also been shown to be a critical factor that influences learners' performance. Besides its influence on reading and writing, vocabulary fluency also directly affects learners' performance in skills that are performed online in sequential order, such as listening and speaking.

Three hundred participants took part in the current study. All participants were first-year students at a university in China, and their age ranged between 17 and 19 years. Among them, 242 were female and 58 were male.We administered two versions of the VLT (Nation 1983; Nation 1990; Schmitt et al. 2001) to 300 students at a university in China at three different time points over 22 months, with an interval of 11 months between each administration. This allowed us to track learners' vocabulary breadth knowledge growth and vocabulary fluency development over time and to answer important questions on the relationship between the two. Vocabulary fluency was measured in this study using speed of meaning recognition. We considered this a more

informative measurement than the speed of form recognition alone, as meaning recognition involves recognizing both form and meaning. VLT-1 was used to assess participants' vocabulary breadth knowledge, while the computerized VLT-2 was used to measure their vocabulary fluency.

This study was carried out to fill the gap in the lack of longitudinal research on the relationship between vocabulary breadth knowledge growth and vocabulary fluency development. Our analysis yielded several substantive findings.

First, frequency level showed significant effects both for learners' vocabulary breadth knowledge and vocabulary fluency at each particular time point and for the rates at which learners' vocabulary breadth knowledge and vocabulary fluency develop. Secondly, vocabulary breadth knowledge and vocabulary fluency were not strongly related to each other at specific time points, and the strength of their relationship was affected by frequency level. Third, consistent with what Laufer and Nation (2001) reported, our results indicated that vocabulary fluency development lags behind vocabulary breadth knowledge growth. Finally, our results on the AWL level showed that the frequency of words in the specific context of L2 learning and use may have a stronger effect on learners' vocabulary acquisition than general word frequency, particularly beyond the 2,000 level.

Accomplishing a longitudinal study is a time consuming process but it is pedagogical important esp. when it comes to the retention aspect of newly learned vocabulary and vocabulary fluency which is the speed of access to vocabulary knowledge. Vocabulary fluency has shown to be a critical factor that influences learners' performance in various language skills including reading, writing, listening and speaking. (Segalowitz 2005) As Segalowitz mentioned single-word recognition is essential for reading comprehension. Knowing a word has three aspects:

1. Form (including spoken or written or …)
2. Meaning (including concept , reference , associations)
3. Use (including grammatical functions , collocations , constraints on use)

Although vocabulary breadth knowledge and vocabulary fluency both play an essential role in language performance researches on their correlation are infrequent. Results of this article suggested that receptive vocabulary breadth knowledge and vocabulary fluency are not potently correlated in specific time points, and frequency level affects their correlations. By comparing the participants' vocabulary breadth knowledge and vocabulary fluency for each frequency level at different time we would observe that vocabulary fluency development lags behind vocabulary breadth. As suggested at the end of the article, I believe it is important to use fluency tests as a supplement to both vocabulary breadth and depth. These tests allow second and foreign language teachers to obtain a more complete picture of learners' vocabulary knowledge.

An Experimental Analysis of the Affective Dimensions of Deep Vocabulary Knowledge Used in Inferring the Meaning of Words in Context

This paper examines an under-studied component of deep vocabulary knowledge, affective meaning, which is used to convey attitudes. Two affective dimensions, evaluation and potency, are examined to determine whether they influence the vocabulary choices of native speakers of American-English in describing interpersonal interactions. These affective components are measurable, but they have not been systematically incorporated into assessment instruments that tap vocabulary depth. Affective components of vocabulary deserve more systematic attention in applied linguistics, because vocabulary depth is important for understanding the nature of vocabulary networks and for its contribution to proficiency in advanced L2 learners.

In Experiment 1, 44 college students read sentences containing verbs that varied in class (experiencer or action), evaluation (positive or negative), and potency (high or low). These students were asked to choose adjectives to describe nouns filling the sentence thematic roles. In Experiment 2, 30 students chose sentence verbs, given sentences containing agents or stimuli and patients or experiencers with different levels of evaluation and potency.

In first experiment, participants chose adjectives that were more potent for the sentence agent than for the patient in sentences with action verbs and, with one exception, they chose more potent adjectives for the sentence stimulus in sentences with potent, experiencer verbs. This

provides clear evidence that evaluation and potency are components of lexical knowledge that affect word choice.

In the second experiment, participants chose verbs given information about nouns in the sentences. Nouns were described by dispositional adjectives that differed in evaluation and potency. Evidently, the use of these adjectives led most participants to choose experiencer verbs rather than action verbs for most sentences. Participants generally chose positive verbs when adjectives describing the agent or stimulus were positive and negative verbs when they were negative. The evaluation and potency of thematic roles interacted to influence the degree of evaluation of the chosen verb.

We all know that when a lexical item is read in context, features common to them are accessed in memory. Words activate other words that have overlapping features even though they are from different classes. The evaluation and potency are two factors which may influence word choice. There is evidence from work with large scale corpora that the evaluative and, to a lesser extent, potency dimensions are important in the overall structure of semantic space and also for identifying the tone of a text. With regard to these theoretical framework, participants of this article generally chose adjectives that were more potent for agents rather than patients in sentences with action verbs. Also more potent adjectives were selected for experiences verbs. The reason is that the readers assign characteristics to agent and patient of a sentence based partially on the verb and partially on characteristics they assigned to them. In sum, both the evaluation and potency of thematic roles interacted to influence verb and adjective choice in systematic ways. That is why various semantic relatedness and prior knowledge approaches, such as semantic mapping are effective techniques for teaching new concepts to students of competence and ethnic background.

The Effects of Vocabulary Breadth and Depth on English Reading

Although many studies have found a strong relationship between vocabulary and reading, they have often employed only a single measure of vocabulary and have not addressed the multidimensional nature of vocabulary knowledge. It has been proposed that traditional measures of vocabulary assess mainly breadth of vocabulary, because although they do capture a sense of

how many words are known, they do not indicate how well or how deeply those words are known. Compared with breadth of vocabulary, depth of vocabulary has beenless researched. The purpose of this article is to examine the relationship between breadth and depth of vocabulary knowledge and the effects of these two dimensions of vocabulary knowledge on different aspects of reading in ESL students.

The participants in the present study were English-immersion students in China. The participants were 248 students from the four English-immersion classes in Grade 8 from a middle school in Xi'an, China. All students agreed to participate, and their parents signed the consent form. Two students who were absent for several tests were excluded from the study. Of the total 246 participants, there were 69 boys and 177 girls. The gender imbalance may be due to the better performance of girls on the English entrance exam that the school uses to select students. The mean age of the participants was 13 years 5 months.

Based on the literature reviewed, vocabulary depth involves three aspects: elaborated meaning, morphology, and collocational use of words. Therefore, three measures (word definition, morphological awareness, and multiple-meaning tests) were given to students to obtain a fuller assessment of vocabulary depth. In addition, two reading comprehension measures were used to see whether different reading comprehension measures depend upon different cognitive skills (Cutting and Scarborough 2006; Keenan et al. 2008). One was a standardized multiple-choice format reading comprehension test and the other was a summary writing measure which required the students to write a text-absent summary after reading a short passage.

The two dimensions of vocabulary knowledge, breadth and depth, are correlate with and predict different aspects of reading. vocabulary instruction must go beyond establishing simple definitions for words; it must develop complex, in-depth knowledge about the words being taught, which is a deep but narrow approach. Studies that provided such rich vocabulary instruction showed gains in both accuracy of word knowledge and comprehension of text containing the taught words in L1 and L2, and the effect was even more effective for L2 learners. Both breadth and depth of vocabulary are required for adequate L2 word reading and reading comprehension. The contributions of breadth and depth of vocabulary to L2 reading

comprehension differ depending on the type of reading comprehension required. Deeper processing of text was shown to require vocabulary depth; other reading comprehension measures which assess general understanding of the text only required breadth of vocabulary. Educators must target both breadth and depth of vocabulary to completely and successfully facilitate the development of reading.

As there are many different approaches to measuring depth of vocabulary knowledge, but the definition of depth of vocabulary knowledge is far from clear. Many researchers tried to explain the depth of vocabulary. Such as the knowledge of a word's different sense relations to other words in the lexicon or the degree to which lexicon networks have been established. Or according to morphological information considering the depth of vocabulary as affixes and roots knowledge which can help learners to realize the formation of words and therefore enrich their understanding of the relations among words . Read (2000) suggested that these two dimensions of vocabulary knowledge may converge when learners are relatively advanced; but are more distinct when they are lower levels of language proficiency. As I said before, because of the lack of a clear theory-driven construct definition and the complexity of assessing of vocabulary depth, it is difficult to measure this dimension of vocabulary knowledge, but it could be accessed through multiple-choice vocabulary tests that require synonym substitutions, checklist tests and oral picture selection tests. It is clear that students with deeper word knowledge would learn more words through linkage between lexical items, in other words they develop more extensive lexical network to increase their vocabulary depth. As the writer of this article suggests teaching words that are known by 40 to 60 percent of children without being too specific about their meaning would be a wide but shallow approach to vocabulary instruction therefore teacher must go beyond establishing simple definitions for words.

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