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Language Learning Approaches: A Review of Research on Explicit and Implicit Learning in Vocabulary Acquisition

LEE Bee Chooa,*, Debbita TAN Ai Linb, Ambigapathy PANDIANc

aSchool of Languages, Literacies and Translation, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia
bSchool of Languages, Literacies and Translation, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia
cSchool of Languages, Literacies and Translation, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia

Abstract

The crucial role of lexis in both first and second language acquisition has long been acknowledged by researchers. As Singleton (1999) aptly put it – “the major challenge of learning and using a language, whether as L1 or L2, lies not in the area of broad syntactic principles but in the ‘nitty-gritty’ of the lexicon”. With regards to the general discussions in L2 acquisition research, one glaring issue has always been whether explicit attention to vocabulary is absolutely necessary in vocabulary learning (Hunt and Beglar, 2005; Laufer, 2005; Hulstijn, 2001; Huckin and Coady, 1999). Various studies have come up with opposing conclusions and the consensus appears to be a compromise between the incidental and the intentional, summarised fittingly by Nation (2005) in his assertion that every course should involve some deliberate attention to vocabulary. The present paper will focus on surveying and comparing the various strands of research dedicated to intentional and incidental vocabulary learning, as well as delve deeper into relevant vocabulary acquisition issues. It is hoped that the observations in this paper will constitute a body of essential empirical evidence together with theoretical insights into the vital areas of vocabulary research.

Keywords: lexis/vocabulary; L2/second language acquisition; explicit/implicit vocabulary learning

1. Introduction

1.1. The Importance of Vocabulary in Language Competence

In the old days of language acquisition, vocabulary teaching and learning were given little importance (Alemi and Tayebi, 2011). However, the scenario today is drastically different as very few language instructors – if any – would even consider overlooking the lexical dimension in their regular teaching.
In fact, language learners themselves regard vocabulary knowledge to be of primary importance and often feel that many of their difficulties in both receptive and productive language use result from inadequate vocabulary (Nation, 1990).

The crucial role that vocabulary plays in language competence has been repeatedly acknowledged, particularly so since the 1990s. Laufer (1998) stated that the most striking difference between foreign learners and native speakers is in the quantity of words each group possesses. In the same vein, Lewis (2000) argued that the single most important task facing language learners is acquiring a sufficiently large vocabulary.

The relevance of the lexical facet in language learning has resulted in a substantial amount of theoretical and empirical studies in the area. In other words, as much as vocabulary is no longer neglected in the classroom, the same goes for its status in the realm of research.

1.2. The Explicit/Implicit Distinction

In knowledge acquisition, the distinction between explicit and implicit learning operate within definitions originating from psychology, definitions which generally highlight the presence or absence of conscious processes.

According to Ellis’ (1994) terminology, implicit learning is typically defined as acquisition of knowledge by a process which takes place naturally, simply and without conscious operation, while explicit learning is said to be characterised by more conscious operation where the individual makes and tests hypotheses in a search for structure.

In the field of vocabulary acquisition, incidental learning is largely defined as the learning of vocabulary as a by-product of any activity not explicitly geared towards vocabulary learning (Rieder, 2003). In contrast, intentional vocabulary learning is defined as any activity geared at committing lexical information to memory (Hulstijn, 2001).

1.3. Past and Present – Vocabulary’s Position in Language Acquisition

From the 1850s, and for approximately a century, it was via the Grammar-Translation Method that language was taught in most schools (Lowe, 2003). Vocabulary certainly did not garner as much emphasis as grammar did under the authority of the said method. In fact, as Kelly (1969) pointed out, direct instruction on vocabulary was presented only when a word exemplified a grammatical rule.

The popularity of Structuralism and behavioural psychology contributed to the Audio Lingual Method which appeared in the 1940s and lasted till the 1970s. Strong emphasis was given to the acquisition of oral skills as well as accurate form and structure, thus considerably relegating the significance of vocabulary to that of merely an accessory of other language skills (Twaddell, 1973; Fries, 1945).

After the 1970s came the Communicative Language Teaching concept and the Natural Approach, both of which were responsible for elevating and enhancing the status of the lexicon. Since then, language instructors and applied linguists have stressed on the importance of vocabulary in language teaching and learning (Carter and McCarthy, 1989; Laufer, 1986).

According to Maiguashca (1993), the lexical dimension in language teaching and learning has undergone a remarkable shift from “poor relation” to “guest of honour”. This is perhaps best exemplified through Meara’s (1995) observation that research on the acquisition of vocabulary has mushroomed enormously over the last 20 years to the extent that it is now almost impossible to keep up with the output, even if you hardly read anything else.

While the teaching and learning of vocabulary was unpopular in the old days, it is today at best a controversial issue. Although the current and general consensus remains that the lexical dimension is highly significant and indispensable in language learning, the teaching of vocabulary, for instance, still allows for questions like what kind of vocabulary to teach and how to teach it.

Furthermore, with regards to discussions in L2 acquisition research, one glaring issue has always been whether explicit attention to vocabulary is absolutely necessary in vocabulary learning (Hunt and Beglar, 2005; Laufer, 2005; Hulstijn, 2001; Huckin and Coady, 1999).
The present paper attempts to explore and observe the more recent studies in the area of vocabulary research. The studies that the authors have chosen for the purpose of this paper all concern the following – L2 attainment, mainstream vocabulary teaching and learning strategies, explicit/implicit vocabulary acquisition issues, and student performance.

2. Studies

2.1. First Study

One question that is frequently at the forefront of vocabulary learning is how effective extensive reading really is. According to McCarthy and Wigglesworth (2001), extensive reading will probably be the main opportunity for many learners to encounter a wide range of new words. Meanwhile, Huckin and Coady (1999) emphasised that many studies seem to indicate that except for the first few thousand common words, vocabulary learning largely transpires through extensive reading with the learner guessing at the meaning of unfamiliar words.

But Laufer (2005) suggested that extensive reading on its own may only result in relatively small gains and that reading combined with word-focused tasks is likely to be a more powerful means of vocabulary expansion. Numerous studies – particularly those on L2 learners – have also found that the use of extensive reading alone has resulted in low rates of vocabulary acquisition, demonstrating the inadequacy of this approach for L2 learners (Rosszell, 2007; Waring and Takaki, 2003; Zahar, Cobb and Spada, 2001; Horst, Cobb and Meara, 1998).

Although the present scenario seems to be in favour of a compromise between explicit and implicit lexical learning, there are still key issues that need to be delved into; the complexities of inferring word meanings, the effects of different instructional techniques, and long-term retention. 

Hugh Roderick Rosszell’s (2007) contribution deals with the matter of vocabulary teaching and learning through extensive reading. More precisely, he described a two-condition extensive reading programme conducted for 40 EFL students of a Japanese university which led him to conclude that an approach which couples extensive reading with intensive vocabulary study represents an option that is both more viable and effective for L2 learners.

In highlighting the questionable bias against using decontextualised study to help students with vocabulary expansion and the complexities of learning words implicitly through guessing and inferring, the study pointed out that incidental learning is best followed up with intentional learning.

This is represented by Rosszell’s findings which showed a statistically significant and sustained advantage in favour of the students who experienced extensive reading complemented with intensive vocabulary study (ER+ group), as opposed to those who were not exposed to intensive vocabulary study (ER group). The participants were tested on meaning, use and recall, with the ER+ group outperforming the ER group in all three measures.

While drawing pedagogical implications (i.e., the inclusion of intensive vocabulary study can indeed boost vocabulary learning to higher levels), Rosszell also draws attention to the need for more longitudinal ER-based studies in future research.

2.2. Second Study

Over the years, the number of research dedicated to extensive reading has been steadily increasing and the same can be said for studies which highlight the use of specific reading texts/genres, as opposed to the use of multiple reading materials.

Naser Rashidi and Amir Ganbari Adivi (2010) investigated the correlation between vocabulary learning and the reading of specific short stories. One particularly interesting observation was also made by the authors regarding learner’s purpose and vocabulary gain.

The research involved 40 Iranian EFL learners divided into two groups. The students in the experimental group were assigned to read five short stories for the purpose of comprehension while those in the control group were explicitly taught the target words. Both groups were homogeneous in terms of their proficiency in the English language.
The results garnered were in favour of the experimental group, revealing significant incidental vocabulary gains in comparison to the outcome of explicit instruction. It is observed that the findings appear to be inconsistent with past research (Laufer, 2005; Laufer and Yano, 2001; Cho and Krashen, 1994; Knight, 1994) in which more credit was accorded to explicit vocabulary instruction.

Rashidi and Adivi remarked that one essential factor, absent in most studies on L2 incidental vocabulary learning, was the specification of the purpose for reading. According to them, one reason why the students in the experimental group performed better might be due to the fact that a purpose was already defined for them: they had to read for the purpose of comprehension. The students must have therefore paid closer attention to the contextual clues in order to guess the meaning of the unfamiliar words they encountered in the given texts.

This might persuade one to contend that the learning process was consequently not entirely incidental, seeing that some degree of intentional attention was involved. Regarding this, the authors maintained that while the purpose of reading the texts was made known to the students of the experimental group, none of the participants were aware of the objective of the study or more importantly, that a follow-up vocabulary test would be administered.

In their summation, the authors called attention to Ellis’ (2008) argument that both implicit and explicit learning are part and parcel of vocabulary acquisition. Unfortunately, the role given to incidental vocabulary learning is often a peripheral one, existing only in the presence of explicit instruction. Rashidi and Adivi asserted that specifying a purpose for reading can facilitate incidental vocabulary acquisition, and that the results of their study confirms the effectiveness of learning vocabulary via implicit means.

2.3. Third Study

Dana (2006) looked at the Grammar-Translation Method and its influence on a group of ten adult students’ vocabulary acquisition. The Grammar-Translation Method of foreign language teaching, one of the most traditional methods, dated back to the late nineteenth and early twentieth centuries and was originally used to teach “dead” languages (and literatures) such as Latin and Greek (Thuleen, 1996).

The method is very much based on the written word and is focused primarily on learning the grammar rules and their application in translating texts from one language into another, with the teaching mainly made in the students’ first language. Vocabulary, for the most part, is learned through direct translation from the native language and memorisation, using a bilingual word list. In terms of language skills, reading and writing are given preference over speaking and listening (Dana, 2006). Therefore, accurate use of language items is essential in this approach.

The samples in Dana’s study, students of pre-intermediate level, were subjected to three 45-minute lessons followed by a vocabulary test. The theme of the lessons was food and on grammar, the researcher focused on regular and irregular verbs. The students were tested on their productive vocabulary knowledge as well as their ability to recall and place acquired vocabulary into context. An attempt was made to strike a balance between validity, reliability and practicality.

In the experiment, the students first took turns to read the text aloud which they later translated using a bilingual vocabulary list. It was then joined to the text. Then, they were drilled item by item, based on the vocabulary and phrase pattern list. After that, the teacher would read aloud some of the words and the students would then translate them aloud in class. The lesson would then continue with the students’ attention drawn to the grammar part where they would be drilled further on the irregular verbs. Students would then work in pairs, testing each other’s memory. Finally, they would be asked to go back to the text, find and underline the new irregular verbs and then answered the questions asked in the text.

Dana (2006), in her study, came up with several conclusions. Firstly, she found that although the Grammar-Translation Method helped students at this level to analyse a particular language area, the range of vocabulary knowledge covered was too narrow although the students’ knowledge of target vocabulary was excellent. Also, students faced problems integrating the words within context-conscious learning of rules. They were able to produce a base form of any word from the list but they tended to encounter difficulties when it came to putting the items into the
correct form within a context, unless they were provided with fitting sentence structures. Students tended to regard language as an anthology of words that are independent and isolated – to be linked together to form a sentence. Dana (2006) also found that the students tended to disregard the content but were overly concerned with linguistic details. They were able to recall words in familiar sentence patterns but not so if those familiar words were to be presented in unfamiliar contexts.

Hence, Dana (2006) concluded that the Grammar-Translation Method does not lead to language acquisition and her findings supported the opinions of Thuleen (1996), Harmer (1993) and Krashen (1987) that the Grammar-Translation Method does not lead to effective vocabulary acquisition and that it should be tempered with other approaches to further promote acquisition. Thuleen (1996) went as far to say that the method may prove to be harmful to students’ motivation and interest unless the students respond well to rules, structure and correction. Additionally, Harmer (1993) highlighted the difficulties of translation which requires an efficient speaker of both languages to translate well and stated that teachers should not be overly reliant on the method. Krashen (1987), who analysed the linguistic output of students from grammar translation classes, commented that it cannot lead to acquisition.

Thus, the conclusion one may arrive at is that language acquisition does not come from sheer conscious learning of rules. In this case, one may argue that deprived of a sound knowledge of the grammatical basis of the language, students may just end up possessing a string of communicative phrases that are sufficient for basic communication but which will be deemed sorely lacking when it comes to performing more refined or sophisticated linguistic tasks.

2.4. Fourth Study

Webb (2009) investigated the effects of receptive and productive learning of word pairs on vocabulary knowledge on a group of Japanese native speakers. Learning word pairs involves memorising foreign vocabulary items together with their synonyms or translations and is very much a conventional method of vocabulary learning. As described by Webb (2009), receptive learning of word pairs means first knowing a decontextualised L2 vocabulary article and then attempting to recall its L1 meaning. On the other hand, productive learning of word pairs refers to first knowing a decontextualised L1 article and then attempting to recall its L2 form.

The subjects of the study were 62 first year undergraduates attending EFL classes at a university in Japan and all of them had studied English for at least six years. Based on their scores in Paul Nation’s Vocabulary Levels Test, they were deemed to possess receptive and productive knowledge of approximately 1700 of the 2000 most frequent words (Schmitt, Schmitt and Clapham, 2001; Laufer and Nation, 1999). The subjects were divided into two groups, with one group studying ten words pairs receptively and the other group studying the word pairs productively. The study was carried out within one 90-minute class period. The subjects were given six minutes to learn the ten target word pairs and were closely monitored by their teachers to ensure that the desired learning tasks were being correctly administered. Once the treatment was over, they were subjected to a vocabulary test whereby the five aspects of vocabulary knowledge – orthography, association, syntax, grammatical functions, and meaning and form – were each measured.

The results of Webb’s (2009) study showed that the quantity as well as the type of vocabulary knowledge gained is considerably by the direction learning took place. Productive learning resulted in superior gains in productive knowledge of meaning, syntax and grammatical functions, and in productive as well as receptive knowledge of orthography. On the other hand, receptive learning garnered significantly larger gains in receptive knowledge of meaning. Webb’s research findings lend support to previous studies on the comparison of receptive and productive learning of word pairs carried out by Mondria and Wiersma (2004), Waring (1997), Griffin and Harley (1996) and Mondria and Stoddard (1929). Given the superiority of productive learning over receptive learning, it may seem that it is the more effective method although receptive learning of word pairs is perhaps the more commonly used method.

On the whole, the findings of Webb’s extensive study have shown that both productive and receptive tasks are very effective, as well as time-efficient methods of acquiring vocabulary knowledge. This gives rise to suggestions that it may be wise for researchers to use both receptive
and productive tests since one task contributed to greater gains in one area while the other task achieved greater gains in another area. If only one method is used, either a productive or a receptive task, the acquisition of vocabulary may be compromised in one way or another. Vocabulary acquisition researchers such as Schmitt (2008, 2000), Hunt and Beglar (2005), Nation (2001, 1990, 1980), Prince (1996), Siebert (1930) and Thorndike (1908) had consistently found learning word pairs to be an effective method of acquiring vocabulary knowledge. In fact, Nation (2008, 2001, 1982, 1980) stated that vocabulary learning programmes should include learning word pairs because it can be a fast and efficient method of acquiring L2 vocabulary. However, decontextualised tasks have been criticised for focusing exclusively on linking L1 meaning with L2 form, and for neglecting learning from context. This has led some researchers such as Oxford and Crookall (1990), Krashen (1989) and Crow (1986) to suggest that intentional learning tasks should be discouraged and to focus more on learning from context. Webb’s extensive study on the effectiveness of receptive and productive learning of word pairs has yielded valid results and coupled with the findings previous studies, it leaves little doubt on the benefits of both tasks to learners who seek to boost their vocabulary knowledge in a short period of time. Moreover, being relatively fast and efficient learning methods, it makes sense to combine them with other explicit and incidental tasks in a quest for an effective vocabulary learning programme.

3. Conclusion

We trust that the compilation of studies in this paper constitutes a body of important empirical evidence together with theoretical insights into the areas of vocabulary acquisition, teaching and assessment. As Eysenck (1982, p. 203) put it: “memory performance is determined far more by the nature of the processing activities engaged in by the learner than it is by the intention to learn per se”.

Learning, whether incidental or intentional, is mainly a matter of selective attention and elaborated processing. The absence or presence of a learning intention does not play a decisive role as vocabulary acquisition is first and foremost determined by the nature and frequency of the processing of new words.

Incidental vocabulary learning is not necessarily more effective than intentional learning, nor is intentional vocabulary learning necessarily more effective than incidental learning (Brown, Waring and Donkaewbua, 2008; Laufer, 2005; Read, 2004; Nation, 2001). Hence, both the explicit and the implicit should be incorporated into the teaching and learning of vocabulary.

References


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