THE INCREMENTAL NATURE OF LEARNING A WORD: A STUDY WITH EFL LEARNERS

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ABSTRACT : Learning vocabulary is an essential part of speaking a second language. It is often being said that learners carry dictionaries not grammar books and that without vocabulary one cannot convey anything in a language. This cross-sectional study examined the ability of 45 EFL learners at pre-intermediate, intermediate and upper intermediate levels of proficiency to recognize and produce collocations, inflections and derivations of six words, two in the three major word classes (nouns, verbs and adjectives). The participants were presented six sentences in Portuguese and asked to translate the underlined words and to provide information about them which are required to determine whether the word is known or not. The results show that verb + preposition collocations appear at all levels with *talk* but not *make*. Derivations for *talk* appeared only at upper intermediate level and even so only very few students demonstrated knowledge of those derivations. Despite the fact that nouns are acquired first, fewer verb + noun collocations with the two nouns, *room* and *money,* were provided and the greatest variety of verbs appeared at upper intermediate level. As far as adjectives are concerned, they seem to be the hardest to be acquired. The study showed that vocabulary acquisition is incremental in nature when the different aspects of knowing a word are analyzed. The more advanced the learner, the more aspects of a word are acquired. Pedagogical implications will also be discussed.

Keywords: Vocabulary acquisition; Incremental nature; Collocation; Derivation; Inflection.

RESUMO: A aquisição de vocabulário é parte essencial na aprendizagem de uma segunda língua. Os alunos carregam consigo dicionários e não livros de gramática e é difícil expressar-se em uma língua sem vocabulário. Este estudo examinou a habilidade de 45 alunos de inglês como língua estrangeira em níveis pré-intermediário, intermediário e intermediário superior de reconhecer e produzir colocações, inflexões e derivações para seis palavras, duas em cada uma das categorias principais de classe de palavras (substantivos, verbos e adjetivos). Foi apresentado aos participantes seis sentenças em português com as palavras sublinhadas, as quais deveriam ser traduzidas para o inglês e dar as informações pedidas de cada uma delas. Os resultados mostraram que as

colocações verbo + preposição mais comuns aparecem em todos os níveis de proficiência para o verbo *talk* (falar), mas não para *make* (fazer). Derivações para *talk* só aparecem no nível intermediário superior e mesmo assim, somente alguns alunos demonstraram conhecimento dessas derivações. Apesar de os substantivos serem adquiridos primeiro, os alunos produziram poucas colocações do tipo verbo + substantivo para as palavras *room* (sala) e *money* (dinheiro), e a maior variedade de verbos foi dada por alunos no nível intermediário superior. Em relação aos adjetivos, parece que são os mais difíceis de serem adquiridos. O estudo mostrou que a aquisição de vocabulário é gradual quando se analisa os diferentes aspectos do que significa saber uma palavra. Quanto mais avançado o nível de proficiência, mais aspectos de uma palavra são adquiridos. Implicações pedagógicas do resultado da pesquisa também são discutidas.

Palavras-chave: Aquisição de vocabulário; Natureza gradual; Colocação; Derivação; Inflexão.

INTRODUCTION

Learning vocabulary is an essential part of speaking a second language. It is often being said that learners carry dictionaries not grammar books and that without vocabulary one cannot convey anything in a language. Despite the increasing number of vocabulary studies and consequent understanding of the development of isolated aspects of vocabulary, there is still no overall theory of vocabulary acquisition (SCHMITT, 2010) and the mechanisms of vocabulary acquisition continue to be one of the most intriguing puzzles in second language acquisition. The quality of the depth of vocabulary knowledge and the incremental nature of vocabulary acquisition are two of the many pieces of the puzzle which need more investigation.

The native speaker of a language continues to expand his vocabulary throughout adult life while syntax seems to be fully developed at a much earlier stage. Studies in second language acquisition (SLA) show that the same is true for learners of English as a second or foreign language (SCHMITT, 2010; NATION, 2001). Therefore, the role vocabulary plays in language acquisition justifies more studies in this area. While studies in the acquisition of syntax have long been central to SLA, vocabulary acquisition research has only become more prominent in the field after the 80s (MEARA, 1996).

One of the reasons that the development of lexical competence has received less attention originates in the definition of communicative competence. Canale and Swain's seminal paper on communicative competence does not describe lexical competence as a separate entity but rather lumps it together with grammatical competence. According to

Canale and Swain, grammatical competence is understood as "knowledge of lexical items, and of rules of morphology, syntax, sentence-grammar semantics and phonology" (CANALE; SWAIN, 1980, p. 29). Given the importance of the construct of communicative competence to the teaching of English, the fact that no separate competence is proposed for the lexicon might have led teachers to believe for many years that vocabulary could be left to take care of itself and there was no need to teach it systematically.

The cross-sectional study presented in this article intends to be a contribution to the studies in vocabulary acquisition in an attempt to add to the bulk of research available in order to highlight the importance of vocabulary teaching. The study was conducted in an EFL language institute in Salvador, Bahia, Brazil and the results show that knowing a word varies according to level of proficiency regarding students' knowledge of collocation, derivation and inflection of six randomly chosen words.

WHAT'S A WORD?

No matter how well educated one is, it is impossible to know all of the words in a language. In addition, even if this task was feasible, what counts as a word varies from author to author. According to Nation (2001), there are several ways of counting words. Words can be counted as a) tokens – "every word form in a spoken and written text" (NATION, 2001, p. 7); b) types – as a result in a sentence like " I have to have my car cleaned", the word *have* would count only once; c) lemmas – " a headword and some of its inflected and reduced (*n't*) forms" (NATION, 2001, p. 7). In an article describing a psycholinguistic model of vocabulary acquisition in L2, Jiang (2000) defines a lexical entry as composed of a lemma (syntax and semantics) and lexeme (morphology and phonology/orthography). This latter definition will be used in this paper.

WHAT'S LEXICAL COMPETENCE?

As mentioned in the introduction, the concept of lexical competence was buried in the more general construct of communicative competence for decades. Only recently has it been given more attention and more research has been done in order to define what exactly is meant by the term. According to Jiang (2000, p. 64), what is meant by learning a word has not received much attention due to a "lack of a proper definition of lexical competence that is widely accepted by researchers in this area".

One of the first attempts to define lexical competence was a seminal article by Richards (1976) in which the author suggests "eight assumptions concerning the nature of lexical competence" (RICHARDS, 1976, p. 78). The first assumption is that vocabulary continues to expand in adulthood compared to the little development of syntax in the

same period. The seven assumptions below, according to Richards (1976) describe what knowing a word implies:

a. The probability of encountering a word in written or spoken form.
b. The limitations of use of a word according to function and situation.
c. The syntactic behavior of a word.
d. The underlying form of a word and its derivation.
e. The associations between a word and other words in the language.
f. The semantic value of a word.
g. The many different meanings of a word.

Nation (1990) adds to Richards's list and discusses the knowledge of lexical items within four dimensions: form (spoken and written form), position (grammatical patterns and collocation), function (frequency and appropriateness), and associations (concept and association). Considering that each aspect involves both receptive and productive knowledge, the total of traits of a word to be learned adds up to sixteen. This receptive/production distinction is later on revised and the dimensions are renamed form, meaning and use but the different aspects of each dimension increases. As a result, Nation (2001) suggests an eighteen-trait list of aspects which compose a process model for knowing a word, emphasizing the relations between the parts. In the revised model, form comprises knowing receptively and productively the spoken and written forms and the word parts (inflection and derivation). Meaning consists of knowing the form and meaning, concept and referents and associations. Finally, use entails knowing grammatical functions, collocations and constraints on use (register, frequency...).

Meara (1996 p. 37), on the other hand, argues that "despite the manifest complexities of the lexicon, lexical competence might be described in terms of a very small number of easily measurable dimensions" which are properties not attached to the lexical items but of the lexicon considered as a whole. Thus, the author proposes two basic dimensions: size and organization. The more words a person knows, the more proficient he is in a language. However, tests to determine the size of one's vocabulary are difficult to design and to interpret. Meara (1996) concludes that L2 words are acquired from language exposure and not memorization of abstract lists of words and that in the process of acquisition of words, most people acquire a "broader knowledge about the words they already know" (MEARA, 1996, p. 45). As far as organization is concerned, the author affirms that "alongside measures of how many words people know, we also need independent measures of how well these words are known" (MEARA, 1996, p. 45). He argues for a measure that can be applied to a whole vocabulary rather than a person's knowledge of a single word. As a result, he proposes an association network between a word and other words in the language which would be interpreted as "an ability to produce native-like associations to L2 words" (MEARA,

1996, p. 47). This type of measure would reveal that L2 word associations are different from L1 word associations. It seems that L2 learners find it harder to produce associations than L1 speakers of English. The network produced would reveal the degree of connectivity of a network, the average distance between randomly selected items in the network and these sort of connections would distinguish between a true vocabulary from a mere list of words. According to Meara (1996), there is some evidence to suggest that L2 learners possess less structured vocabulary and find it less easy to produce associations than native speakers do. L2 speakers are also less able to see connections between words that are obvious to native speakers. Given that associations are deeply connected to sociocultural views of the world, it is not surprising that L2 speakers might produce different types of associations at early stages.

THE RESEARCH

The quality of the depth of vocabulary knowledge and the incremental nature of vocabulary acquisition are two of the many pieces of the puzzle which need more investigation. This cross-sectional study examined the ability of 45 EFL learners at pre-intermediate, intermediate and upper intermediate levels of proficiency to recognize and produce collocations, inflections and derivations of six words, two in the three major word classes (nouns, verbs and adjectives). For the purpose of this investigation the definition of the constructs collocation, inflection and derivation were taken from the glossary provided by Schmitt and McCarthy (1995). Thus, collocation is "the syntagmatic relationship between words which co-occur in discourse" (SCHMITT; McCARTHY, 1995, p. 327). Examples of collocations are idioms such as *kick the bucket,* and other strong combinations like *blond hair* (not *yellow hair*). Derivation is "a process of word formation, most often resulting in a change of word class" (SCHMITT; McCARTHY, 1995, p. 328) while the process of inflection does not result in change of word class. Affixes are added in both cases. So, for example, the adjective *unbelievable* derives from the verb *believe* and is composed of a prefix *un-* and a suffix *–able*. On the other hand, in the case of inflection, the continuous form of the verbs in English are formed by adding *–ing* at the end of the verb, i.e., *go* becomes *going*.

The research questions were:

1. Which word class can students identify more collocations for?
2. Do learners acquire inflections before derivations or is it the other way around?

METHOD

Participants

The 45 participants were EFL learners at a private language institute in Salvador, Bahia, Brazil. All of the students were Brazilian and none of them had lived in an English speaking country. 17 students were at pre-intermediate level, 13 at intermediate level and 10 at upper intermediate level. The study was conducted in 2006 and at the time the textbooks used at the institution were: English File Pre-intermediate, Inside Out Intermediate and Inside Out Upper Intermediate.

Target words

Because this study investigated the target words in detail, the selection criteria were directed by exposure to the words and often confused words. As a result, the nouns were chosen because pre-intermediate level students have often been exposed to the nouns *room* and *money* in different contexts and the same is true for the adjective *soft*. The verbs were chosen because students many times confuse *talk* and *speak* and *do* and *make*. The adjective *small* is sometimes confused with *little*. Swan (1995) discusses the differences between these pair of words and classifies them as "problems for the foreign learners" (SWAN, 1995, p. ix).

The assumption was that students would show different knowledge of the words given their different levels of proficiency.

Instrument

In order to investigate the learners' knowledge of collocation, derivation and inflection, a form[47] was designed (See Appendix A) based on the productive aspects of knowing a word listed by Nation's list of what it means to know a word (2001, p. 27). Given the complexity of the table, the labels were adapted to students' level of proficiency.

Although the form asks students to produce eight different aspects, only three are being analyzed in this article, i.e., collocations, derivations and inflections.

Procedure

Students were given the form during a class period and were asked to fill it out. Clarifications were made and students were given no time limit to complete the form.

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[47] The original form was written in Portuguese to avoid misunderstandings.

The forms were then collected and data analyzed without the help of any statistical instrument due to the small nature of the sample.

Analysis

The analysis of the forms has been divided according to part of speech – nouns, verbs, adjectives.

a) Nouns – *room* and *money*
1. At pre-intermediate level 40% of the students could not identify collocations for *room*.
   All students at intermediate and upper intermediate levels identified collocations for *room* (Parts of the house, e.g. bathroom, living room etc). Adjectives and verbs were not presented.
   Pre-intermediate and intermediate learners identified quantifiers as the most common collocation for *money* (e.g. *much, any*).
   Verbs were restricted to *have* (pre-intermediate) and *make* (intermediate).
   Upper intermediate students presented a greater variety of verbs – *save, waste*; a noun – *pocket* and quantifiers such as *a lot, much*.
2. No inflections or derivations for *room* were present.
   Monetary was the only example of derivation for *money* at upper intermediate level and even so only 3% of the students at this level were capable of producing such word.

b) Verbs – *talk* and make
1. 80% of the students at both pre-intermediate and intermediate levels and 100% of the upper intermediate level students provided the most common prepositions that collocate with *talk* – *to* and *about*. None of the students at pre-intermediate level identified prepositions that collocate with *make*.
   The most common prepositions identified at both intermediate and upper intermediate levels were *in* and *of*. Even so, only 10% of the students were capable of doing it at both levels.
   One student at intermediate level wrote *make up your mind* and one at upper intermediate wrote *make up for*.
   None of the students identified V+ noun collocations or Adv + V collocations.

2. 25% of the students at pre-intermediate level identified *–ing* as an inflection for both verbs. No students at the other two levels did so.

The only derivation was *talkative* and even so only three students at upper intermediate level were able to do so.

No derivations for *make* were produced.

c) Adjectives – *soft* and *small*

1. No collocations for *soft* were produced at pre-intermediate or intermediate levels.
   25% of the students at upper intermediate wrote *software, soft drink, soft clothes.* There were no collocations for *small.*

2. At all levels at least one student identified *–ly* as an inflection for *soft.*
   -er and *–est* were more common for *small* at all levels.

DISCUSSION

Results show that students at an upper intermediate level were capable of producing more collocations, derivations and inflections for the target words than students at lower levels.

a) Collocations: Students failed to produce collocations for *room* other than words related to parts of the house and this is probably a result of the fact that the word *room* appears only in this context in the textbooks used by learners. Although the noun is quite common, it does not usually appear in other types of contexts. *Money*, on the other hand, is presented at pre-intermediate level and reappears throughout the course in different contexts. In addition, there is a unit in Inside Out Upper Intermediate whose title is *Money* and students are exposed to a series of verbs that collocate with the noun. The verbs *talk* and *make* are also presented quite frequently in textbooks and at a very early level. So, it is no surprise that students at pre-intermediate level could produce V + preposition collocation for *talk. Make* and *do* are often confused at beginning levels and the results show that this was not different here. In fact, 15% of the students at pre-intermediate level translated the sentence incorrectly: *I did a cake for you*. The prepositions identified as collocates for *make* are introduced at intermediate level in the context of passive voice (X is made in Y and A is made of B).
Given the fact that adjectives are acquired later and that the textbooks used do not present collocations explicitly, it is no surprise that learners could not produce any collocations for *small.*

b) Derivations and inflections: The choice of the words *room* and *money* might have affected the results since these two nouns do not have many derivations or inflections.

Despite the fact that students were told what inflections were and were given examples, the plural *–s* did not surface in this study. The same may be said for the inflection of verbs. The fact that only students at pre-intermediate level produced *-ing* as inflection for *talk* and *make* might be explained by their recent exposure to the past continuous form of the verbs. Although students at intermediate and upper intermediate levels are capable of producing the *–ing* form quite accurately, they did not write it down in the form. As expected, only upper intermediate level students were able to give a derivative form of *talk*. The adjective scenario was slightly different since inflections were provided for *small* and *soft* but no derivations. Once again, the choice of the adjectives might not have been appropriate given that the derivative forms of *small*, i.e. *smallish* and *smallness*, are not very frequently used in textbooks and neither are *softish* or *softness*.

The results indicate that the more proficient the learner is the more aspects of a word he knows. These findings are in line with other studies in the area of vocabulary acquisition. Schmitt and Zimmerman (2002), for example, have shown in a study of derivate word forms that subjects showed increasing knowledge of noun and verb derivatives, but adjective and adverbs appeared to be more difficult for them and that the more advanced learners knew the most. It seems that global mastery of inflections, derivations and collocations may increase with general proficiency.

IMPLICATIONS FOR TEACHING

This study shows that teachers cannot assume that vocabulary will take care of itself. The explicit teaching of word parts and collocations is important and should be planned and taught in the same way as other aspects of language are. Lewis (2000), for example, argues for the centrality of lexis and suggests a number of activities to develop students' lexical competence. Among the activities presented are:

a) Using a collocation dictionary: Teacher gives students five key nouns related to a topic, for example, education, which will then serve as the topic of an essay. Iin this case, the words could be: teacher, school, qualification, lesson, etc. Students are then asked to look up these words in a dictionary and note down collocations for each of the words. As they write their essays, they should try to use some of the collocations identified.

b) Underlining collocations in a text: All textbooks bring reading passages to develop learners' reading skills. After reading the text and doing the exercises

that follow it, teachers can ask students to underline verb+noun collocations or adjective + noun collocations that are found in the text. The choice will vary according to the type of collocations found in the text.

Although inflections are easier to learn because they follow clearer grammatical rules, Van Patten's Input Processing theory (2002) posits that (a) learners prefer processing lexical items to grammatical items for the same semantic information (e.g. *yesterday* before – *ed*); (b) learners prefer to process semantic or non-redundant encodings before formal or redundant ones (the pronoun *he* before the –*s* marking of the third person singular). As a result, teachers should keep that in mind when correcting learners or reminding them of the use of inflections.

Derivations, on the other hand, are not formed according to transparent rules. Despite the fact that there are some patterns, for example, the suffix –*ity* attaches only to an adjective to form a noun, they are not always clear to all learners. Therefore, teachers should call students' attention to new forms whenever they appear and provide practice opportunities in the classroom so that learners can develop their lexical competence more fully. Some activities that can be used for that purpose are:

a) Presenting derivations whenever presenting new words.
b) Playing games in which students have to provide affixes.
c) Identifying new affixes in the reading passages.

CONCLUSION

Studies in vocabulary acquisition have revealed that the lexicon develops with time and that multiple encounters with a word are required for acquisition to take place. Jiang (2000) proposed a psycholinguistic model of vocabulary acquisition and concluded that the lexical representation in L2, in general, has three unique features: (a) a lexical entry consisting of L2 lexeme (phonology, morphology and orthography) and L1 lemma (semantics and syntax); (b) little morphological specifications are integrated within the entry; (c) the links between L2 words and concepts are weak. The author argues that a majority of L2 words fossilize at a stage in which the lexeme is L2 but the lemma is still L1.

Although the concept of lexical competence still lacks an agreed-upon definition, there is no doubt that the more proficient the learner is, the more forms of a word he might know as it has been shown here. Nevertheless, it cannot be assumed that because a word has been taught, it has been learned and will be recognized later if it appears with an affix. As a result, teachers should prepare tasks and activities which will encourage learners to notice and identify inflections, derivations and collocations so that they can increase their knowledge of L2 words.

The results presented here must be interpreted with caution due to the small number of participants and are not generalizable. However, supported by other findings in the field of vocabulary acquisition (SCHMITT; ZIMMERMAN, 2002; SCHMITT; McCARTHY, 1997), it can be said that the higher the level of proficiency of the learner, the more aspects of a word are known.

In sum, it can be said that the findings reported in this article contribute to the literature on vocabulary acquisition, more specifically, the acquisition of collocations, inflections and derivations of words.

References:

CANALE, Michael; SWAIN, Merrill. Theoretical bases of communicative approaches to second language teaching and testing. **Applied Linguistics**, Oxford, v. 1, n. 1, p. 1 – 47, 1980.

JIANG, Nan. Lexical representation and development in second language. **Applied Linguistics**, Oxford, v. 21, n. 1, p. 47 – 77, Mar. 2000.

LEWIS, Michael. (Ed.). **Teaching Collocation**: Further developments in the lexical approach. Hove: LTP, 2000.

MEARA, Paul. The dimensions of lexical competence. In: BROWN, Gillian; MARMKJÆR, Kirsten;

WILLIAMS, John.(Eds.) **Performance & competence in second language acquisition.** Cambridge: Cambridge University Press, 1996, p. 35 – 53.

NATION, I.S.P., **Teaching and learning vocabulary**. Boston: Heinle & Heinle, 1990.

NATION, I.S.P. **Learning vocabulary in another language.** Cambridge: Cambridge University Press, 2001.

RICHARDS, Jack C. The role of vocabulary teaching. **TESOL Quarterly**, Alexandria, v. 10, n. 1, p. 77 – 89, Mar. 1976.

SWAN, Michael. **Practical English Usage**. New Edition. Oxford: Oxford University Press, 1995.

SCHMITT, Norbert. **Researching vocabulary**: a vocabulary research manual. Hampshire: Palgrave Macmillan, 2010.

SCHMITT, Norbert; McCARTHY, Michael (ed.) **Vocabulary**: Description, acquisition and pedagogy. Cambridge: Cambridge University Press, 1997.

SCHMITT, Norbert; ZIMMERMAN, Cheryl Boyd. Derivative word forms: what do learners know? **TESOL Quarterly**, Alexandria, v. 36, n. 2, p. 145 – 172, Summer 2002.

VAN PATTEN, Bill. Processing instruction: an update. **Language Learning**, Blackwell, v. 52, n. 4, p. 755 – 803, Dec. 2002.

APPENDIX A

For each of the underlined word below, provide the requested information in the grid.

1. Eu preciso <u>falar</u> com você

2. A <u>sala</u> é muito pequena.

3. Eu não tenho <u>dinheiro</u>.

4. Eu <u>fiz</u> um bolo para você.

5. Esse sapato é bem <u>macio</u>

6. O menino é muito <u>pequeno</u> para o tamanho da cama.[48]

Spelling			
Pronunciation			
Other meanings			
Part of speech			
Position in the sentence			
Collocations			
Inflections/Derivations			
Association			

Spelling			
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Association			

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[48] 1. I need to talk to you.   2. The room is too small.   3. I don't have money.   4. I made you a cake.   5. These shoes are really soft.   6. The boy is too small for the bed.