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VOCABULARY GROWTH AT TERTIARY LEVEL: HOW MUCH PROGRESS CAN SERBIAN EFL LEARNERS MAKE IN A YEAR?*

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Abstract. The size of L2 learners' vocabulary, both receptive and productive, represents a vital concept in the field of L2 acquisition, given that it determines the degree of success in communication. The larger the vocabulary size of a learner is, the better his/her understanding and ease of communication in the target language. For this reason, a body of research focusing on the developmental process of lexical acquisition in L2 learners of various proficiency levels (beginner, intermediate, advanced) in different teaching contexts is nowadays steadily expanding. A recent study aimed at investigating the relationship between lexical reception and production in Serbian L1 English L2 learners, English language majors, has indicated that production seriously lags behind reception. Therefore, the aim of this paper was to explore the growth in receptive and productive vocabulary size of B2-level (CEFR) English L2 learners, first year English majors, over a period of a single academic year. The data obtained reveal that the rich L2 input provided in Integrated skills classes, combined with other compulsory and elective courses predominantly held in English, has resulted in the learners' productive lexical knowledge developing faster than their receptive lexical knowledge. This outcome consequently affected the relationship between the learners' receptive and productive vocabulary size – the gap between the two narrowed.
Key words: vocabulary size, lexis, L2 acquisition, reception, production.

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One of the key differences between learning a native and a foreign/second language[1] lies in the fact that L1 lexical growth occurs at a fast rate, starting from an early age and reaching its peak with the onset of formal education and the introduction of increasingly complex texts (cf. Anglin, 1993). Adult native speakers of English are believed to know 15,000–20,000 word families, which in turn implies that for each year of their life they add about 1,000 word families to their vocabulary (Goulden *et al*., 1990; Nation & Waring, 1997). For EFL learners, who acquire the language in a different setting, receiving far less input and having fewer opportunities for meaningful interaction, the growth of lexical knowledge occurs at a much slower pace. For instance, a recent study conducted in Spain (Olmos, 2009) has shown that high school graduates' lexicons, after eight consecutive years of learning English in primary and secondary school, contain only 1,000–2,000 basic English words, i.e. their word families.[2] Contrary to this, Laufer (1998) believes that graduates of Israeli high schools are expected to have mastered approximately 3,500–4,000 word families in English. Even though Laufer's (Ibid.) predictions regarding gains in lexical knowledge are more optimistic, based on these figures we can infer that learning words in another language is a fairly slow and lengthy process. As Singleton (1989: 236) put it, it would take more than 18 years of classroom L2 exposure to supply an equivalent amount of L2 input as is provided by a single year of naturalistic exposure. EFL learners' lexical competence can, consequently, rarely compete with that of native speakers.

A sparked interest in L2 vocabulary acquisition has, in the past few decades, led to a proliferation of studies which have examined various aspects of this issue, such as the implicit/explicit teaching of vocabulary or the relationship between receptive and productive vocabulary. The latter, however, deserves more attention as the data heretofore collected, pertinent to the developmental pattern of vocabulary acquisition, paint an incomplete picture. Before we present the design of our research, we will briefly discuss the importance of vocabulary size, the difference between receptive and productive vocabulary knowledge, vocabulary (levels) tests which have been widely

[1] In this paper we will not insist on the difference between foreign and second language acquisition and will, therefore, use the term L2 to cover both of these learning contexts. Nevertheless, our study, as well as its research background, focuses on the acquisition of English as a foreign language.

[2] When discussing the development of lexical knowledge in English, researchers commonly use the term *word family* which refers to "a base word and all its derived and inflected forms" (Bauer & Nation, 1993: 253), e.g. *evaluate*, *evaluates*, *evaluation*, *evaluative*, *evaluated*, *evaluating*, and *evaluator*. Words belonging to the same word family are closely related in form and meaning. The underlying assumption of the concept of word family in measuring vocabulary size rests on the notion that a person who knows the meaning of one member of the word family can probably understand the meaning of other forms as well so these should not be counted as separate items (Read, 2000: 84–85). In our paper, the terms *word* and *word family* will be used interchangeably.

accepted as reliable and valid instruments for measuring vocabulary size as well as the conclusions which have heretofore been reached in relation to vocabulary growth in EFL learners.

The importance of vocabulary size

Vocabulary size (VS) plays a crucial role in L2 learning. According to certain conservative estimates, there are about 54,000 word families in English (Nation & Waring, 1997). Adult native speakers are expected to have in their lexical stores roughly a third of this number, yet only a fraction of these words will be regularly used while many of them will forever remain in the domain of reception, not production (for example, Graeco-Latin words; cf. Corson, 1995). In L2 learners, vocabulary size will determine the degree of comprehension, whether oral or written. Although there is a plethora of words in English, a relatively small number occurs very frequently so if a learner knows them, this will enable him/her to understand a significant proportion of any text. Researchers nowadays agree that if learners are to read authentic, unsimplified texts with ease, a vocabulary of at least 3,000–5,000 words is needed (Laufer, 1992; Liu & Nation, 1985; Nation, 1990; Nation & Hwang, 1995). On the other hand, a smaller number of words, between 2,000 and 3,000, can suffice for productive language use (Nation & Waring, 1997: 10). Unfortunately, vocabulary size of many EFL learners, both receptive and productive, falls short of the recommended 2,000–5,000 words, even after they had spent several years learning English.

Reception vs. production

In the field of L2 vocabulary acquisition, numerous studies have confirmed that reception precedes production and that receptive vocabulary size is usually larger than productive vocabulary size (cf. Clark, 1993; Laufer, 1998; Marton, 1977; Waring, 1997; Webb, 2008). This is a result of receptive learning being less demanding than productive learning. The type of classroom instruction to which the learners are exposed, focused on receptive or productive learning, has a profound influence on lexical knowledge – if productive use is to be expected, there needs to be productive learning. Meeting words receptively is unlikely to result in knowing how to use them well for communicative purposes because the process of bringing receptive vocabulary into productive use is not an easy one (Nation, 2001). Taking into account the fact that L2 learners mostly acquire the language in a formal instructional setting, it is a teacher's responsibility to assess the learners' vocabulary learning needs and introduce activities which will benefit them most – whether s/he focuses on academic lexis or general useful vocabulary in developing

the skills of reading, writing, speaking and listening, all of these actions will leave a lasting mark on the learners' L2 lexical competence.

Vocabulary levels tests

Two most commonly employed ways of measuring vocabulary size make use of a dictionary or a frequency count (Nation, 1990). The latter relies on the use of frequency word lists, such as West's (1953) or Thorndike and Lorge's (1944). An instrument for assessing vocabulary size can be created by selecting words from the different word frequency bands (the most frequent 1,000 words, the next 1,000 words etc.). These test items typically represent many more words, thus giving a rough estimate of a learner's vocabulary size. Even though several tests are nowadays available for evaluating both receptive and productive lexical knowledge, among the most widely used are the Vocabulary Levels Test and the Productive Vocabulary Levels Test, devised by Nation (1990) and Laufer and Nation (1999), respectively.

Nation (1990) first developed an instrument for estimating learners' receptive vocabulary size, as a discrete point test, by introducing five segments and defining their content in accordance with the word-frequency data from Thorndike and Lorge's (1944) list, as well as the *General Service List* (West, 1953) and Kučera and Francis' list (1967). The five different parts were designed to test (Read, 2000: 118): the first 2,000 words, 3,000 words, 5,000 words, University word level (i.e. academic lexis) and 10,000 words. The University word level was added by drawing on the specialized list compiled by Campion and Elley (1971). As Meara put it, it is "the nearest thing we have to a standard test in vocabulary" (1996: 38). Laufer and Nation (1995, 1999) later developed and trialed another test, designed as a productive parallel of the receptive Vocabulary Levels Test that became known as the Productive Vocabulary Levels Test.[3]

Research background

In table 1 we present a brief summary of research which has investigated the issue of vocabulary growth in English L2 learners to date.

[3] Productive Vocabulary Levels Test test is also known as the *controlled active* or *semi-productive* vocabulary test.

Table 1: A summary of research focusing on vocabulary growth in the EFL classroom setting

Study	Subjects	Time span	Testing instruments	Results
Schmitt & Meara (1997)	Japanese L1 English L2 secondary and post-secondary level learners	13 weeks	Vocabulary Levels Test (Nation, 1990)	Receptive VS grew from 3,900 to 4,230; statistically significant improvement at each level (p=0.05); 28% of the learners achieved lower scores on the second test
Laufer (1998)	Hebrew L1 English L2 secondary level learners (10th and 11th graders)	A single school year	Vocabulary Levels Tests (Laufer & Nation, 1999; Nation, 1990)	10th graders knew 1,900 word families receptively and 1,700 productively; 11th graders knew 3,500 and 2,550, respectively; the ratio between receptive and productive VS decreased
Zhong & Hirsh (2009)	Chinese L1 English L2 secondary level learners	10 weeks	Vocabulary Levels Tests (Laufer & Nation, 1999; Nation, 1990)	Productive VS developed more than the receptive VS (400 vs. 200 words); the ratio between reception and production increased at each level
Ozturk (2012)	Turkish L1 English L2 tertiary level students, majoring in ELT (1st and 4th year students)	Four academic years	Vocabulary Levels Tests (Nation, 2001; Schmitt, Schmitt & Clapham, 2001)	Cross-sectional study revealed minimal differences between receptive and productive VS of the two groups of students; longitudinal study showed a 3% growth in receptive VS and 10% growth in productive VS

The study

Inspired by the work of Laufer (1998), Zhong and Hirsh (2009) as well as Ozturk (2012), and prompted by the fact that tertiary level EFL learners' lexical progress is still under-researched, we decided to further explore this issue by focusing on Serbian L1 English L2 tertiary level learners, English language majors.[4] Laufer's (1998) study, designed to contrast two different age groups, suggested that both dimensions of lexical knowledge could develop dramatically, with receptive vocabulary size growing an astonishing 84% and productive vocabulary size increasing by as much as 50%. On the other hand, both Zhong and Hirsh's (2009) and Ozturk's research (2012) showed that productive vocabulary could develop at a faster rate than receptive vocabulary. In addition to this, Ozturk's findings (Ibid.) revealed that the overall gain in lexical knowledge, after four years of tertiary level studies, was rather modest (reception: 3%, production: 10%).

Taking into consideration the aforementioned contradictory results regarding lexical growth in EFL learners, we formulated the following research questions:

(1) How much will the receptive and productive vocabulary size of Serbian EFL learners grow after 30 weeks of intensive input?
(2) Will the gap between receptive and productive vocabulary narrow or broaden over the word frequency levels?
(3) Will the relationship between receptive and productive vocabulary change?

Participants. The participants who, voluntarily, took part in the study were 66 students enrolled in the first year of the English language and literature program at the Faculty of Philology and Arts in Kragujevac, Serbia. They were all, without exception, native speakers of Serbian. They had spent between eight and ten years learning English in elementary school and high school. Their level of proficiency in English was estimated as B2 (according to the Common European Framework of Reference) by means of the university entrance exam which they had to take in July 2012.

Research instruments. Four instruments were used for the purpose of this research: two receptive vocabulary tests (pre-test and post-test) and two productive vocabulary tests (pre-test and post-test).[5] The tests used to inves-

[4] The gap between receptive and productive vocabulary knowledge of Serbian L1 English L2 tertiary level learners, at a B2-level of proficiency in English (CEFR), has recently been explored by Danilović (2012). Her findings showed that the learners' productive vocabulary was far less developed than their receptive vocabulary notwithstanding the fact that they had spent at least eight years studying English in both elementary school and high school. Roughly estimated, the students' receptive vocabulary size was 4,150 word families whereas their productive vocabulary size was 2,470 word families.

[5] In this paper, the term *pre-tests* refers to the tests administered before the 30-week instruction period while the term *post-tests* refers to the tests administered after this period.

tigate the students' receptive and productive vocabulary size at the beginning and the end of the academic year were identical. These tests, which examine two aspects of lexical knowledge, were (partially) devised by Paul Nation: we opted for the Vocabulary Levels Test (Nation, 1990: 264–272), as a receptive measure of vocabulary size, and its productive equivalent, the Productive Vocabulary Levels Test (Laufer & Nation, 1995, reprinted in Nation, 2001: 425–428). The two versions of the vocabulary test are structurally similar: both contain five levels of word frequency, i.e. the 2,000-word level, the 3,000-word level, the 5,000-word level, the University word level, and the 10,000-word level. What is more, each of these tests contains 90 items (18 per level), which renders them compatible in terms of scoring, and eases subsequent comparisons of results across the word frequency levels. However, the tests differ in format: the receptive vocabulary size test requires the learners to match 90 decontextualized lexical items with their synonyms or definitions whereas the productive vocabulary size test elicits suitable word completions in 90 short sentences, e.g.

Receptive vocabulary size task

1 business	
2 clock	_____ part of a house
3 horse	_____ animal with four legs
4 pencil	_____ something used for writing
5 shoe	
6 wall	

Productive vocabulary size task

He was riding a bic_____. (bicycle)

The reason why we administered the same research instruments, and not their variations which can nowadays easily be found on the Internet,[6] stems from the design of this study: given the fact that the students did not see the tests after they had completed them in October 2012, we believed that they would thoroughly forget their contents in the ensuing seven-month period, that is before they were once more expected to take them (in May 2013). The use of identical test items could not, in our opinion, have had an adverse effect on the results.

Procedure and scoring. Both the initial (pre-testing) and final (post-testing) receptive and productive vocabulary size tests were administered to the students by the researchers themselves in their regular vocabulary and grammar classes at the very beginning and the end of the academic year 2012–2013, that is during the first two weeks of October 2012 and the last two weeks of May 2013. In order to minimize fatigue, the testing sessions were held one week apart: first the learners' receptive lexical knowledge was investigated and then their productive one. At the onset of each session, the participants

[6] See http://www.lextutor.ca/tests/.

were given instructions regarding the content of the tests as well as the manner in which they should be solved. Moreover, the participants repeatedly received explanations pertinent to the goal of the testing process, i.e. that the lexical dimension of their EFL knowledge was being explored solely for research purposes and, more importantly, that the results would not have an impact on their course grades. Even though there was no maximum time limit on completing any of the tests, the students succeeded in solving them in approximately 45 minutes.

With regard to the scoring aspect of our testing, we marked the students' responses as either correct (1 point) or incorrect (0 points). A more lenient approach was employed, however, with the Productive Vocabulary Levels Test, in accordance with Laufer's (1998) work in this area, so mistakes in grammatical form (e.g. *pupil* instead of *pupils*) or spelling (e.g. *percieved* instead of *perceived*) were not penalized as long as the target lexical item's meaning could be recognized. The subsequent data analyses were performed by means of a statistical program, SPSS 17.0.

L2 input. During the first year of their studies, our participants, English language majors, had been exposed to a considerable amount of L2 input. In addition to courses in linguistics (*Introduction to English linguistics*, *Phonetics*, *Morphology*) and literature/culture (*Medieval English literature*, *Renaissance English literature*, *Introduction to British culture and civilization*)[7], which were predominantly held in English, they had to take a two-semester C1-oriented (CEFR) course in English, aimed at developing the skills of reading, writing, speaking and translation (English into Serbian) as well as their general knowledge of grammar (e.g. parts of speech, number, tenses, aspect, mood). For these classes, students commonly had plenty of homework that included, for instance, reading target texts in English, looking up unfamiliar words in a monolingual dictionary, constructing lists of words or doing a variety of lexical and grammatical exercises. How much students actually worked at home and whether they all completed the set homework is, however, open to question as there were no penalties for copying/bringing someone else's homework or not doing it altogether. It goes without saying that the students did not attend every single class each week and could have avoided doing homework in this manner too. Additionally, we cannot state here how many vocabulary items were covered per each vocabulary session as these classes did not center around them – the students were supposed to look up any new

[7] All of these English-medium courses introduced assignments for students (e.g. reading texts, excerpts, poetry, doing exercises) yet it is questionable whether the students fulfilled them or not. It is also worth noting that, due to the nature of these courses, the professors and teaching assistants might have switched from English into Serbian in their teaching sessions in order to clarify the explanations they had been providing. For this reason we have stated here that the classes were predominantly held in English. The final tests were, in accordance with the recommended literature and the medium of the courses (i.e. English), composed in English and the students, naturally, had to provide the answers in English as well.

lexical items appearing in a certain textbook unit in advance so they could participate in class in oral discussions of certain topics or debates, write summaries, solve reading comprehension exercises, paraphrase sentences and do lexical tasks of different sorts (e.g. synonyms, antonyms, word family members, phrasal verbs, collocations and the like).

Given that English is a foreign language in Serbia, L2 input is mostly received through formal instruction (cf. Danilović, 2013). Students can, however, watch movies or TV programs in English at home, since these are rarely dubbed, or play computer games, surf the Internet and the like, all of which might contribute to their L2 knowledge.

Results

To answer our research questions, we compared the results on the two vocabulary tests, i.e. pre- and post-tests. The data, including means, standard deviations and paired sample t-test results, are presented in tables 2, 3 and 4. The maximum number of points which could be gained at each word frequency level on the two vocabulary size tests (receptive and productive) is 18, which in turn implies that the total score per test was 90. The noteworthiness of the differences between the pre-test and post-test scores is reflected in the t-test results.

Table 2: A comparison of Serbian EFL learners' receptive vocabulary size

	Pre-test (N=66)		**Post-test (N=66)**		**Difference**	
	Mean	SD	Mean	SD	*t*-value	*p*
2,000	16.53	1.75	17.48	1.01	4.41	0.000
3,000	16.17	2.10	17.20	1.11	5.11	0.000
5,000	11.92	3.04	13.15	2.91	3.35	0.001
UWL	12.39	2.32	13.61	2.08	4.77	0.000
10,000	5.61	3.65	7.88	3.48	5.50	0.000
Total	62.62	10.25	69.32	8.46	7.51	0.000

As we can see in table 2, receptive vocabulary has grown negligibly in a single academic year (M=62.62 vs. M=69.32). If we convert the overall test scores into the number of word families, we learn that that the total of 62.62 equals

about 4,050 word families whereas 69.32 equals roughly 4,350 word families.[8] The difference between the scores represents about 300 words but does not significantly change the approximate, actual vocabulary size – it is still about 4,000 word families. A comparison of the students' receptive vocabulary size at the beginning and the end of the first year of academic studies indicates that receptive lexical knowledge has increased by 8%.

Table 3: A comparison of Serbian EFL learners' productive vocabulary size

	Pre-test (N=66)		**Post-test (N=66)**		**Difference**	
	Mean	SD	Mean	SD	*t*-value	*p*
2,000	13.42	2.80	15.76	2.16	8.35	0.000
3,000	6.85	2.78	10.47	2.53	13.31	0.000
5,000	4.41	2.62	6.95	2.54	11.03	0.000
UWL	5.76	2.85	8.85	3.11	10.18	0.000
10,000	2.64	1.76	4.02	2.02	7.48	0.000
Total	33.08	10.89	46.02	9.63	16.98	0.000

Table 3 shows that productive vocabulary has grown considerably during our single year of study (M=33.08 vs. M=46.02). Once more, when we convert the total scores into the number of word families, we notice that the growth in vocabulary size is represented by approximately 800 word families, i.e. going from roughly 2,300 word families to about 3,100. In other words, the results indicate that productive lexical knowledge has expanded by 14% in one year.

Word frequency had a significant effect on the results on both tests – the scores decreased linearly as word frequency decreased. The only exception is the level of academic lexis, for which the scores increased on both versions of the vocabulary (levels) test.

By drawing a comparison between the results presented in tables 2 and 3, we conclude that the two dimensions of lexical knowledge did not develop at the same rate (see Table 4). After one year of extensive exposure to L2 input, the students acquired about 800 word families productively and 300 word families receptively. In percentages, we recorded a 14% growth in productive vocabulary size and an 8% growth in receptive vocabulary size.

[8] The calculations were performed in line with Laufer's (1998) recommendations. Since the learners' achievement on the final level (the 10,000 section) of the vocabulary tests was very poor, we decided to exclude these scores when we converted the results into the approximate number of word families.

Table 4: A summary of vocabulary growth

	Receptive	Productive
	(in word families)	
pre-test	4.050	2.300
post-test	4.350	3.100
gain in %	8%	14%

Furthermore, the t-test figures indicate that the difference between the students' achievement on the first and second vocabulary tests (see Tables 2 and 3) is statistically significant at each of the five word frequency levels ($p=0.005$). Therefore, although the increase in receptive lexical knowledge can be considered rather modest, the t-test values suggest that the learners did, in fact, perform notably better on the post-test across all word frequency levels.

We proceeded to investigate the relationship between the two aspects of vocabulary knowledge by calculating the ratio (production vs. reception) and correlating the scores on the tests.

Table 5a: A comparison of receptive-productive ratios

	Receptive	Productive	Ratio
	(in word families)		
pre-test	4.050	2.300	57%
post-test	4.350	3.100	71%

Table 5a shows that the learners' receptive vocabulary size was, at the beginning of the academic year, almost twice as big as their productive vocabulary size. The ratio between the two was 57% then. After the learners had been exposed to rich L2 input for several months in a row, the gap between receptive and productive vocabulary narrowed: the ratio between the two aspects of lexical knowledge increased (the higher the ratio between the figures, the closer they are). An improved level of L2 proficiency has thus resulted in production gaining on reception. This is further corroborated by the fact that the gap between receptive and productive vocabulary has been reduced at each of the word frequency levels (Table 5b), most conspicuously at the 3,000- and 5,000-word level as well as the level of academic lexis.

Table 5b: A comparison of receptive-productive ratios across word frequency levels

Word frequency level	Pre-test	Post-test
2,000	81.18%	90.16%
3,000	42.36%	60.87%
5,000	36.99%	52.85%
UWL	46.48%	65.02%
10,000	47.05%	51.01%

In Table 5b we can also see that, apart from the UWL and the 10,000 section, the ratio between receptive and productive vocabulary size steadily decreases along with the decrease in word frequency, from the 2,000- to the 5,000-word level. It is, consequently, evident that the lower the frequency of words, the wider the gap between receptive and productive vocabulary. In other words, the more frequent a word is, the higher the probability of it being known productively (compare 81.18% for the 2,000-word level and 36.99% for the 5,000-word level). Somewhat strange results observed for the 10,000-word level could be ascribed to the fact that a rather small number of students had attempted to solve this part of the test, of which few had any success in doing so. Those were the students who had a larger (receptive and productive) vocabulary size and could, therefore, complete the final and most difficult segment of the test.

The relationship between receptive and productive vocabulary can, additionally, be analyzed by means of correlational techniques (see Table 6). When we correlated the scores on the initial receptive and productive vocabulary size test, we realized that there was a statistically significant, strong correlation between the two ($p<0.001$). The better the learners performed on the receptive vocabulary test, the higher their scores were on the productive vocabulary test. This implies that the learners whose receptive vocabulary is large are the ones who have a fairly developed productive vocabulary as well.

Table 6: A comparison of Pearson's correlations between reception and production

	r	Sig. (two-tailed)
pre-test	0.718**	0.000
post-test	0.720**	0.000

Legend. **Correlation is significant at the 0.01 level (two-tailed).

Nevertheless, the difference in correlations between receptive and productive lexical knowledge observed at the beginning and the end of our study was very slight. It appears that the expansion of productive vocabulary did not seriously affect the relationship between the two dimensions of vocabulary knowledge. Bearing in mind that the ratio between reception and production has increased after one year of extensive classroom instruction (as the results in Tables 5a and 5b suggest), it seems that the more developed one's productive vocabulary is, the smaller the gap between it and receptive vocabulary.

Discussion

In research question one, we asked how much Serbian EFL learners' vocabulary would grow in an input-rich L2 environment, over a period of a single academic year. The results showed that receptive vocabulary had not changed much – it increased by 330 word families or 8%. On the other hand, there was a sizeable gain of 800 word families, or 14%, in the productive vocabulary. Given that the learners had, during the academic year, taken a compulsory C1-oriented (CEFR) English course *Integrated English language skills 1* which had provided about 180 hours of classroom instruction (6 hours per week × 30 weeks), the gains in vocabulary size can be deemed rather modest. This is especially true when our results are compared with those obtained by other researchers. Laufer's (1998) investigation of vocabulary growth in Israeli EFL learners, conducted over a similar time span, with a comparable amount of input (5 hours a week × 36 weeks), recorded a growth of 1,600 words receptively and 850 words productively. The main difference between the learners who participated in Laufer's (Ibid.) and our research is their L2 proficiency level: a closer look at their scores on the receptive and productive vocabulary test reveals that the 10th graders had a smaller number of words in their lexical stores than our freshmen. Therefore, our students could be considered more advanced L2 learners who had, at the onset of the research, more words at their disposal, both receptively and productively speaking. Considering the fact that our participants had taken a number of other English-medium courses, both compulsory and elective ones, during their

first year of study at the university, which provided additional L2 input and contact with English words, it might come as a surprise that their receptive vocabulary did not develop more. It is possible that the learners had reached a stage at which receptive vocabulary was developing at a slower rate while productive vocabulary, having lagged behind it considerably, was expanding more rapidly. We find support for this hypothesis in Ozturk's (2012) findings and explanations – receptive knowledge of her adult EFL learners, enrolled in an ELT program at the university, improved marginally over a four-year period of time, increasing by only 3%. Having mastered the most frequent 2,000–3,000 words, Ozturk's (Ibid.) participants could rely on their guessing skills while reading, look up unfamiliar words in a dictionary or simply ignore them. The target vocabulary for these learners was 3,000–9,000 words yet, without proper guidance and motivation or the need to learn these words, substantial vocabulary gains could not be expected to occur on their own. Additionally, the decreasing frequency of words in this range (3,000–9,000 level) reduced the likelihood of their appearance in reading texts, so it was more difficult to acquire them through incidental learning, especially if the learners were exposed mainly to specific discipline-related type of English. Participants in Ozturk's (ibid.) study did, however, expand their productive vocabulary by 10% but even this improvement can be considered unsatisfactory, given the length of the study. Our participants performed better production-wise, possibly due to the combined positive influence of the C1-oriented language course and the opportunities for oral/written production supplied in classes, or in the form of seminar papers and sit-in exams. Our conclusions regarding the development of productive vocabulary size are in agreement with Zhong and Hirsh's (2009) findings, since these authors also noticed, in their sample of Chinese EFL learners, that the growth of productive vocabulary (about 400 words) was larger than that of receptive vocabulary (about 200 words). It is worth noting, however, that the duration of their study was much shorter (i.e. 10 weeks).

In research questions two and three, we asked whether the gap between receptive and productive vocabulary would narrow or broaden over time and whether the relationship between the two would change. The increased ratio between receptive and productive vocabulary indicates that some of the words which the learners had acquired receptively have entered their productive vocabulary. The gap between the two dimensions of lexical knowledge has reduced over time, as productive vocabulary started catching up with receptive vocabulary, across all word frequency levels. The correlations presented in Table 6 showed, nevertheless, that the relationship between receptive and productive vocabulary has remained unaffected. The learners who had a larger receptive vocabulary also had a more developed productive vocabulary and the gains in their productive vocabulary thus merely filled existing gaps in their lexical knowledge. At the same time, the learners with a smaller receptive vocabulary seem to have slightly developed their productive vocabulary,

all of which contributed to an insignificant change in the relationship between lexical reception and production. Productive vocabulary growth, followed by an increasing ratio between reception and production, was particularly prominent at the level of academic lexis as well as the 3,000- and 5,000-word level. We can therefore conclude that as the learners' productive vocabulary size augmented, going from approximately 2,000 to 3,000 word families, learners progressed along the vocabulary continuum and enriched their lexical stores with less frequent words which they already knew receptively. The process of bringing receptive knowledge into productive use, albeit a controlled one, has thus started gaining momentum.

The development of productive academic vocabulary is, obviously, inextricably linked with the L2 environment. Since our EFL learners' instruction was being held in an English-medium degree program, which offered an abundance of opportunities for academic work (e.g. reading texts, writing seminar papers, preparing presentations), no wonder there has been a conspicuous increase in the ratio between reception and production at this level (46.48% vs. 65.02%). The gap between receptive and productive vocabulary for the UWL level can, accordingly, be placed between the 2,000- and 3,000-word level. These results lend support to Zhong and Hirsh's (2009) findings in terms of the gains that have been observed across all word frequency levels on the productive vocabulary size test, especially the 3,000- and 5,000-word level, as well as the increasing ratio between receptive and productive lexical knowledge.

Conclusion

The merit of lexical knowledge in L2 acquisition is no longer contested. Nevertheless, empirical investigations of L2 learners have so far presented inconclusive evidence about the developmental pattern of vocabulary growth, and the various factors that play a significant role in this process. The goal of this paper was to examine vocabulary growth of B2-level (CEFR) EFL learners in an academic, L2 rich context where a combination of incidental and intentional learning was taking place. Given that the gap between receptive and productive vocabulary in an L2 can seriously affect the learners' performance in core academic subjects, it can be a source of anxiety and frustration for both the teachers and the learners. Our study showed, however, that extensive exposure to L2 input provided by means of a language course and a number of other English-medium courses led to a significant productive vocabulary growth. Receptive vocabulary growth was, on the other hand, rather modest. Evidently, our learners did not add many new words to their lexical stores but started transferring them from receptive to productive use. It seems that an abundance of opportunities for productive language use gave impetus to production that had heretofore lagged behind reception. As a result, the gap between receptive and productive vocabulary size narrowed. The

relationship between the two dimensions of lexical knowledge did not change much though. These data are partially in line with those obtained by other researchers who had conducted similar studies, in that they seem to imply the relevance of the modes and requirements of L2 instruction (cf. Ozturk, 2012; Zhong & Hirsh, 2009).

The question which imposes itself is why a wealth of receptive and productive L2 input did not bring about a more notable expansion of the participants' receptive L2 vocabularies. It is possible that our learners were at a stage in L2 acquisition where productive lexical knowledge was developing more rapidly than the receptive one. Since the learners already had a substantial amount of words in their receptive vocabularies, perhaps they did not feel the communicative need to expand them any further. As Ozturk (2012) explains, this is probably one of the main reasons why she noticed such an insignificant gain in receptive vocabulary size of her EFL learners. Therefore, it would be interesting to find out whether this tendency of productive vocabulary gaining momentum will continue over the next few years or not. Bearing in mind that progress in vocabulary acquisition is not a linear matter, but subject to fluctuation (cf. Schmitt & Meara, 1997), receptive vocabulary might start increasing more rapidly at some point in time.

Ultimately, we still have only a vague idea about the vocabulary size of EFL learners graduating in English, and the gap between their lexical reception and production, so this issue merits further investigation as well. It might reveal important pedagogical implications that deserve to be acknowledged in the syllabus design of English degree programs.

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ЛЕКСИЧКИ РАСТ НА УНИВЕРЗИТЕТСКОМ НИВОУ: КОЛИКО УЧЕНИЦИ ЕНГЛЕСКОГ КОЈИМА ЈЕ МАТЕРЊИ ЈЕЗИК СРПСКИ МОГУ НАПРЕДОВАТИ ТОКОМ ЈЕДНЕ ГОДИНЕ?

Апстракт

Величина лексичког фонда ученика Ј2, рецептивног и продуктивног, представља важан концепт у области усвајања другог/страног језика, јер одређује степен успешности комуникације. Што је лексички фонд већи, то је разумевање боље, а општење на датом језику лакше. Управо из тог разлога се данас све више пажње посвећује развојном току усвајања лексике код ученика различитих нивоа знања Ј2 (почетни, средњи, напредни) који језик усвајају у разним наставним контекстима. Недавно испитивање односа између рецептивног и продуктивног знања лексике код студената англистике у Србији показало је да продуктивно лексичко знање испитаника значајно заостаје за рецептивним. Циљ овог рада зато је био да испита колики напредак се, у овом погледу, може постићи током једне академске године, са студентима прве године англистике чије је знање енглеског језика на нивоу Б2 (према Заједничком европском оквиру). Резултати указују да је богат инпут коме су студенти били изложени на часовима интегрисаних вештина као и других обавезних и изборних предмета, који су већином држани на енглеском језику, допринео да продуктивна лексика почне брже да се развија него рецептивна, што се последично одразило и на однос између рецептивног и продуктивног лексичког фонда – раскорак између њих се смањио.

Кључне речи: величина лексичког фонда, лексика, усвајање страног језика, рецепција, продукција.

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ЛЕКСИЧЕСКИЙ РОСТ НА ВУЗОВСКОМ УРОВНЕ: КАКОГО ОБОГАЩЕНИЯ ЛЕКСИЧЕСКОГО ЗАПАСА МОЖНО ДОБИТЬСЯ В ИЗУЧЕНИИ АНГЛИЙСКОГО ЯЗЫКА СЕРБОГОВОРЯЩИМИ В ТЕЧЕНИЕ ГОДА?

Резюме

Объем иноязычного лексического фонда учащися, рецептивного и продуктивного, представляет важный элемент в области усвоения второго/иностранного языка, поскольку именно им определяется степень успешности коммуникации. Чем больше лексический фонд учащихся, тем глубже понимание, тем свободнее общение на иностранном языке. Именно по этой причине сегодня внимание все больше уделяется ходу усвоения лексики у учащихся разных уровней владения иностранным языком (базовый, средний, продвинутый), овладевающих иностранным языком в разных контекстах обучения. В одном недавнем исследовании соотношения между рецептивным и продуктивным знанием лексики у студентов англистики в Сербии выявилось, что продуктивное лексическое знание в значительной мере отстает за рецептивным. Цель предлагаемой работы – выявить, какого прогресса в этом отношении можно добиться в течение академического года в работе со студентами первого курса англистики со знанием английского языка на уровне Б2 (соотовестственно Общеевропейской рамке). Результаты исследования указывают на то, что интенсивный прилив нового материала на практических занятиях по всем видам речевой деятельности, а также на занятиях по другим обязательным и выборочным предметам, которые главным образом велись на английском языке, содействовал убыстренному росту продуктивной лексики, а это, в свою очередь, содействовало уменьшению разрыва между рецептивным и продуктивным лексическим фондом студентов.

Ключевые слова: объем лексического фонда, лексика, усвоение иностранного языка, рецепция, продукция.