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Este volume foi publicado cunha axuda da Secretaría Xeral de Investigación e Desenvolvemento da Xunta de Galicia

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Number II - 2005

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Using Lex30 to measure the L2 productive vocabulary of spanish primary learners of EFL

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Abstract

Lex30 is an experimental test of L2 productive vocabulary (Meara and Fitzpatrick, 2000), that elicits a rich vocabulary output from a free word association task. Since its development, it has been mainly used to measure the productive vocabulary of undergraduate learners of EFL. In this paper, we will present the results of a study that has been carried out with a homogeneous group of 282 Spanish primary school learners of EFL enrolled in the fourth grade. The purpose of this study is to ascertain whether the L2 productive vocabulary of such young learners can be measured by means of this exploratory tool.

Key words: Lex30, productive vocabulary, young learners, EFL, exploratory tool.

Resumen

Lex30 es un test experimental de vocabulario productivo en la segunda lengua (Meara y Fitzpatrick, 2000), que elicita un rico educto de vocabulario a partir de una tarea de asociación libre de palabras. Desde su desarrollo, se ha utilizado fundamentalmente para medir el vocabulario productivo de aprendices no licenciados de inglés como segunda lengua. En este artículo, presentamos los resultados de un estudio que se ha llevado a cabo con un grupo homogéneo de 282 estudiantes españoles de enseñanza primaria de cuarto curso. El propósito del estudio es comprobar si el vocabulario productivo de la segunda lengua de aprendices tan jóvenes se puede medir con esta herramienta exploratoria.

Palabras clave: Lex30, vocabulario productivo, aprendices jóvenes, inglés como segunda lengua, herramienta exploratoria.

1. Introduction

Lex30 arises in 2000 (Meara and Fitzpatrick 2000), as an alternative to other tests of productive vocabulary such as the Vocabulary Levels Test (VLT) (Laufer and Nation, 1995, Laufer and Nation, 1999), the Lexical Frequency Profile (Laufer and Nation, 1995) and spew tests, in which testees are asked to elicit words which share a common feature, e.g. words beginning with W.

This new productive vocabulary test stands out for having several practical advantages: (a) it generates a rich vocabulary output very economically, that is, through single word prompts; (b) it is easily administered and it requires very little time to complete (15 minutes); and (c) it is scored automatically using a computer programme.

Its authors were criticised for not drawing any meaningful conclusions on validity and reliability considerations (Baba, 2002). However, these two aspects have been clarified, and validity and reliability have been demonstrated by Fitzpatrick and Meara (2004).

Fitzpatrick and Meara (2004: 72) claim that "Lex30 is a robust enough measuring tool to fill an important gap in the battery of tests currently available". However, they also warn researchers to be cautious with the results achieved, since Lex30 is not a definitive test, but is still in an experimental stage (Meara and Fitzpatrick, 2004).

In this paper, we will present the results of a study that has been carried out with a group of 282 10-year-old learners of EFL. Our main goal is to measure their L2 productive vocabulary through Lex30, and to examine whether it can be a feasible assessing instrument to measure the L2 productive vocabulary of Spanish primary school learners of EFL.

Our paper will be structured as follows: First we will briefly make reference to studies that have employed Lex30. Secondly, we will put forward our specific objectives, as well as present the methodology of our research. Finally, we will describe and analyse the resulting data obtained.

2. State of the art

There are some studies that have employed this electronic instrument. They range from those which: (a) check the correlation between Lex30 and a test of receptive vocabulary (Meara and Fitzpatrick, 2000, Fitzpatrick, 2004); (b) analyse Lex30 word association responses and the variable sex of test takers (Jiménez Catalán and Moreno Espinosa, 2004); (c) check the reliability and

validity of Lex30 (Fitzpatrick and Meara, 2004); and (d) review Lex30 from a theoretical point of view (Fitzpatrick 2000, Baba, 2002). We would like to call attention to the characteristics of some of these investigations (see figure 1 for a summary of them), so as to highlight the features that distinguish our study from previous ones:

- Meara & Fitzpatrick (2000): The subjects who participated in this study comprise a group of 46 adult learners of English, who were from a wide variety of L1 backgrounds ranging from Arabic to Icelandic. On the basis of their classroom teachers' judgements, their proficiency level is rated to be from high elementary to proficiency level. They claim that Lex30 results might serve as a practical index of productive vocabulary. The high correlation between Lex30 and the Eurocentres Vocabulary Size Test (EVST) (Meara and Jones, 1987) suggests that testees' productive vocabulary can be predictable from their receptive vocabulary as measured by EVST. Furthermore, it can have a considerable potential as a diagnostic tool for identifying cases of abnormal vocabulary development.
- Jiménez Catalán & Moreno Espinosa (2004): This study presents the preliminary results of a study carried out with a homogeneous sample of 19 Spanish university undergraduate students, whose level rated by the ESL Composition Profile (Jacobs et al. 1981)- was considered to be low intermediate. Their focus of analysis was to portray informants' word association responses to Lex30 according to the variable sex.
- Fitzpatrick and Meara (2004): This study explores the reliability and validity of Lex30 by means of a test-retest study and two concurrent validity measures, one using native speaker data and the other using two collateral tests: the productive version of the VLT (Laufer and Nation, 1995) and a translation task from Chinese into English:
 - <u>Reliability study</u>: A sample of 16 L2 users of English from a range of L1 backgrounds, and whose language proficiency varied from lower intermediate to advanced level participated in this test-retest method of reliability assessment, with a 3-day gap between test times. The conclusion was that Lex30 had a high degree of test-retest reliability and was successful in eliciting a representative sample of the subject's productive lexicon.
 - <u>Validity study 1 (native speaker norms)</u>: The researchers compared the performance of a group of 46 adult L1 speakers of English from Britain and North America to the performance of a group of 46

non-native speakers, and they observed that: (a) In a general sense, native speakers responded to the Lex30 test in a different way than non-native speakers, by producing a higher percentage of low-frequency words in response to the association prompts; (b) 18 nonnative speakers were able to achieve a higher score than some native speakers, there being only 6 participants in the native speaker group who scored higher than the highest scoring of non-native speakers. They noted that this last outcome was due to the nature of those non-native speakers, who were Icelandic secondary school teachers of English.

 <u>Validity study 2 (collateral tests)</u>: 55 Chinese learners of EFL – rated by their classroom teachers to be from intermediate level to advanced- participated in this second validity experiment. They were asked to translate a set of 60 Chinese words into English; and to complete the productive version of the VLT (Laufer and Nation, 1995). The overall results show that there were significant correlations between the results of the three tests, notwithstanding there was a modest correlation between the two tests and Lex30.

Using Lex30 to measure the L2 productive vocabulary of ...

AUTHOR/S	SUBJECTS				MAIN GOALS AND/OR RESULTS
	No.	L1	L2	L2 LEVEL	MAILY GOALS AND/OK RESOLTS
Meara and Fitzpatrick (2000)	46 adult learners of English	Variety of L1 back- grounds (ranging from Ara- bic to Icelandic)	English	From high- elementary level to proficiency level (rated by their class teachers)	They claim that: (a) Lex30 results might serve as a practical index of productive vocabulary; (b) testees' productive vocabulary can be partly predictable form their receptive vocabulary as measured by EVST; (c) it can have a considerable potential as a diagnostic tool for identifying cases of abnormal vocabulary development
Fitzpatrick (2004)	Not stated the number of young adults	Not stated	English	Group 1: Lower- Intermediate learn- ers attending a 4- week intensive course Group 2: Advanced level learners attend- ing an intercalary year (Not specified how the level is rated)	This scholar attempts to measure and define short-term changes in the lexicon of L2 learners. She concludes that: (a) such changes are not straightforward; and (b) it depends on learner groups, since low-intermediate learners and advanced learners develop differently in terms of receptive vocabulary knowledge, quality of productive knowl-edge and the ability to produce words fluently.
Jiménez Cata- lán and Moreno Espi- nosa (2004)	19 undergra- duate learn- ers of ESP	Spanish	English	Low-intermediate (rated by the ESL Composition Profile)	Their results show that: (a) the uppermost word associations of their informants do actually belong to general English vocabulary rather than English for specific purposes; (b) despite the fact that female and male subjects present an overall pattern of decreasingly stable results, there seems to be a marked tendency: the more infrequent words are, the greater the difference between the two sexes' responses; and (c) Lex30 scores indicate a low proficiency regarding their L2 productive vocabulary lary mastery.
Fitzpatrick and Meara (2004)	16 L2 users of English	Variety of L1 back- grounds	English	Lower-Intermediate to advanced (Not specified how the level is rated)	These scholars demonstrate that Lex30 has a high degree of test-retest reliability and it is successful in eliciting a representative sample of the subject's productive lexicon.
Fitzpatrick and Meara (2004)	46 adult native speak- ers and a group of 46 non-native speakers	Not stated	English	Not stated	Regarding the validity of Lex30, they conclude that in a general sense, native speakers provide a higher percentage of low frequency responses than non-native speakers.
Fitzpatrick And Meara (2004)	55 learners of EFL	Chinese	English	From intermediate to advanced level (rated by their class- room teachers)	Their results show that there were significant correlations between Lex30, the VLT and a translation task.

Figure 1. Summary of some of the most representative studies that have made use of Lex30.

Thus, by reviewing the existing literature, several drawbacks are noticed in some of the previous investigations:

• Informants' proficiency level is not determined in an objective way, either it is located on the basis of their classroom teachers' subjective judgement (Meara and Fitzpatrick, 2000, Fitzpatrick and Meara, 2004), or it is not clearly stated how it was rated (Fitzpatrick 2004, Fitzpatrick and Meara, 2004).

 Heterogeneous samples of informants from a range of L1 backgrounds and proficiency levels took part in some of the investigations (Meara and Fitzpatrick 2000, Fitzpatrick and Meara 2004). Issue, which may present a problem from the outset in the investigation, since: (a) learner variables can influence results (Farhady 1982); and (b) conducting research with informants from heterogeneous proficiency levels may lead to disrupted results, as has actually happened in Fitzpatrick and Meara (2004), where some non-native speakers achieved higher scores than native ones.

We believe that homogeneous samples of informants should take part in research in order to obtain reliable results, since some L2 vocabulary tests seem to provide questionable results for specific groups of non-native speakers. Thus, for example the VLT does not seem to provide feasible results with testees from a Romance language origini (Nation, 1990) and the EVST seems to be unsuitable for French native speakers (Meara and Jones, 1987).

In this study, we have attempted to overcome some of the noted shortcomings by dealing with a sample of rather homogeneous informants regarding L1 backgrounds, age, proficiency level and social context, by comprising a sample of 10-year-old Spanish learners of EFL enrolled in fourth grade of primary education.

Our study resembles the analysis of Meara and Fitzpatrick (2000) Fitzpatrick and Meara (2004) and Fitzpatrick (2004) in the sense that: (a) our goal is measuring L2 productive vocabulary through Lex30; and (b) we will analyse whether Lex30 results are an appropriate index of L2 productive vocabulary by carrying out a correlation against another test of vocabulary. It also has points in common with Jiménez Catalán and Moreno Espinosa (2004), in the sense that our informants are Spanish learners of English as a Foreign Language within the Spanish educational system.

However, there are also differences between those studies and the present study concerning the following issue: our sample of informants are young learners enrolled in 4th grade of primary education, whereas in most of the cited investigations the participants are adult learners of EFL (Meara and Fitzpatrick, 2000, Jiménez Catalán, 2004, Fitzpatrick and Meara, 2004, Fitzpatrick, 2004). As we see it, there is a need for carrying out research on such primary school learners to compare learners' vocabulary sizes, to decide the vocabulary level to be reached in the L2 by students in each stage, as well as finding out what tests could be the most efficient for researching their vocabulary acquisition and development. Thus, we aim to ascertain whether this exploratory and experimental tool can be used as a feasible instrument to measure primary school learners' L2 productive vocabulary.

3. Methodology

3.1. Goals

We aim to achieve the following objectives:

1. To analyse some methodological problems that may arise when using Lex30, an exploratory tool.

2. To assess Spanish 10-year-old L2 productive vocabulary by means of Lex30, to ascertain whether this electronic based instrument is able to measure appropriately the L2 productive vocabulary of such young learners.

3. To correlate the index produced by Lex30 with the receptive version of the VLT (Nation, 1990b, Schmitt et al. 2001) for the purpose of analysing the relationship between their receptive and productive vocabulary.

We believe that by achieving these objectives, we will disclose data specially valuable for EFL/ESL primary school teachers and researchers within the Spanish educational context – which may in turn be extrapolated to other contexts – since, as has been previously stated, as far as we know none of the previous investigations on Lex30 have focused on learners of EFL in primary education.

3.2. Informants

Our informants are two hundred and eighty-two 10-year-old Spanish learners of English as a foreign language enrolled in the fourth grade of primary education in four different schools in La Rioja -two of them are state schools and the rest are private schools receiving state subsidy-.

3.2. Instruments and procedures

Our data gathering instruments were a questionnaire, a placement test, and two vocabulary tests (Lex30 and the receptive version of the VLT). At the beginning of each task clear, general instructions were presented orally and in writing in the students' mother tongue, so as to ensure that informants were able to understand what they were being asked to do.

The tasks were undertaken in writing as part of a normal class early in the second term, 15 minutes being the time constraint set to undertake each of the three vocabulary tasks (Lex30, the Vocabulary Levels Test: 1,000 word level test and 2,000 word level test). Both tests were completed within the same week.

3.2.1. Lex30

Lex30 is a word association task in which testees are asked to produce the first words that come to their mind, using 30 stimulus words that are included within Nation (1984)'s first thousand most common English content words. As Meara and Fitzpatrick (2000:22) note: "They are words which even a fairly low-level learner would be expected to recognise". Despite our agreeing with them, it was deemed advisable to ascertain that all the prompt words were found with-in their range of vocabulary input. Therefore, their own texbooks were collated, and it was found that all the stimulus words were within the constraints of a basic vocabulary suitable for young learners of EFL enrolled in fourth grade of primary education.

Lex30 v. 2.01 includes two new features absent in previous versions:

- The test requires test-takers to produce four responses to each prompt word, instead of three.
- The authors have replaced Nation (1984)'s word lists with the JACET 8000 list (Ishikawa et al. 2003).

We foresaw that sitting all two hundred and eighty-two informants in front of a computer to key in their responses could produce some problematic issues such as: (a) students' lack of familiarity with the programme; (b) false starts; and (c) computer failure, amongst other things; to avoid this we decided to use the pen-and-paper version of the test, and afterwards keying in –ourselves- the responses in their lemmatised form.

Each set of test-takers' responses were saved into their corresponding file and subsequently we used Lex30 scorer –a scoring utility that comes with Lex30 v 2.01- to automatically process the files previously generated. The scorer reads the file and allocates each response it finds to one of the four categories: (a) Level 0 words, which include high frequency words, proper names and numbers; (b) Level 1 words which include the 1,000 most frequent content words in English; (c) Level 2 words that subsume the 2,000 most frequent content words in English; and (d) Not in the List (NiL) band, which includes words which are not found in the previous lists. Each word located within Level 2 words or NiL band scores one point, up to a maximum of 120; any word outside those two categories scores zero.

When Lex30 scorer meets a new word that is not included in the JACET word lists, it asks the researcher to allocate the word in its corresponding band.

As Meara and Fitzpatrick (2004:7) note: "Judgements of this sort carry a large burden of subjectivity. It is important to keep a record of any judgements that you make, so that you are consistent over a period of time", and so we did.

After careful consideration, the following general decisions were made about how to allocate the words that the computer did not recognize (see figure 2 for examples):

- Spanish words were considered as Level 0 words, and therefore they scored zero points.
- Made-up words which resembled English words were treated as Level 0 words.
- Proper names of countries —if written in English- were included in the NiL section, since with such low level learners, it was agreed that such words implied some L2 productive vocabulary knowledge, which should be taken into account.
- Misspellings were not taken into account, and misspelt-words were allocated in their corresponding section.
- Words that have an equivalent form in Spanish and English were treated as Spanish if the surrounding responses were written in Spanish, and as English if it occurred the other way round.

WORDS	COMMENT	ALLOCATION
Inglaterra, tonto, Ana y los siete	Spanish words	Level 0
Idiotid, ruedy, persiany	Made-up words, with an English resemblance	Level 0
England, Italy, Spain	Proper names written in English	NiL
Grecee	Misspelling of Greece (proper name written in English)	NiL
Radar, cable	Words with an equivalent form in English and Spanish, surrounded by Spanish word responses	Level 0 words

Figure 2.	Examples	of how we	proceed
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3.2.2. Receptive version of the vocabulary levels test

The Vocabulary Levels Test (VLT) intends to measure learners' vocabulary size, by measuring discrete knowledge of words at five word frequency levels: 2,000, 3,000, 5,000, the University Word List, and 10,000. It has two versions, one which measures receptive vocabulary size (Nation 1983, 1990 b, Schmitt et al 2001) and a second which determines controlled productive vocabulary size (Laufer & Nation 1995, 1999).

Our informants were given the 1,000 word level test (Nation 1990 b) and the 2,000 word level test (Schmitt et al 2001) of the receptive version. They had to choose the right word to go with each meaning. In the 1,000 word section, the meanings were written in Spanish (see figure 3), whereas in the 2,000 word section, they were written in English (see figure 4).

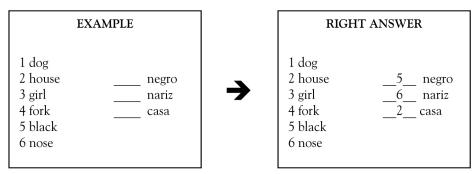


Figure 3. Example of an item from the 1,000 band of the VLT

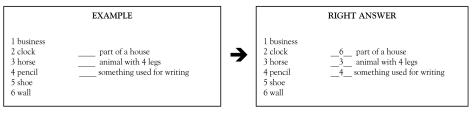


Figure 4. Example of an item from the 2,000 band of the VLT

3.3. Analysis of results

In this section we will present the results provided by Lex30 when measuring the L2 productive vocabulary of our sample of informants. To start with, we will put forth some of the methodological problems that we encountered when using Lex30. Secondly, we will describe and analyse Lex30 results. And finally, we will analyse the relationship between receptive and productive vocabulary through a correlation analysis between Lex30 and the VLT.

3.3.1. Some methodological problems with Lex30

In this section, we would like to discuss some methodological problems we encountered when allocating the words that the computer did not recognize into their appropriate sections. In particular, we noticed a serious drawback, which we believe should be taken into consideration in the future by the authors of this experimental tool:

Some of our informants repeated several prompt words as word association responses, either in plural form or as an association to a different prompt. To our surprise, the computer asked us to allocate those same words which were supposed to belong to the 1,000 most frequent English content words, that is, Level 1 words: forms which the programme was supposed to recognize, but didn't. We sought a reason for this, and we discovered that the prompts given were not classified in the same frequency level as in the JACET list, the new frequency list upon which Lex30 v2.01 was operating. There were only 30 % of those stimulus words included within Level 1 words in the JACET list, and the rest were considered to be either Level 2 words (26.67 %) or NiL words (43.33 %) (See figure 5 for a classification of prompts according to the JACET list). We consider this to be a serious hindrance to the successful use of this exploratory tool, since testees that repeated some of the stimulus words would be given one point for any of those words considered to be either Level 2 words or NiL, in fact, when they were not actually recalling their own productive vocabulary but just repeating words found as prompts in the test, probably because of a low productive vocabulary level. Thus, for example, one of our informants achieved a score of 20 points by providing four different types and several repetitions of prompt words which were awarded one point each, contributing to a score which we do not believe corresponds to the informant's actual productive level. We pondered at length the issue of considering as errors each repetition of a prompt. However, we rejected that option, because the programme would still be able to recognize 56.67 % of all possible repetitions as Level 1 and Level 2 words.

Frequency level in JACET list	Prompts
Level 1 word	Board, disease, hold, real, rest, science, seat, trade, window.
Level 2 word	Attack, close, experience, fruit, hope, map, television, tooth.
NiL	Cloth, dig, dirty, furniture, habit, kick, obey, pot, rice, spell, substance, stupid, potato.

Figure 5. Classification of prompts according to the JACET list

We also came across another technological problem which should be addressed by the authors. Whenever a student wrote an acronym (which contained "dots") as a response to the prompt *spell*, as for example U.S.A., the programme showed a message saying "Not a valid integer value", and it crashed.

We would also like to highlight that thanks to the pen and paper version of the test, we were able to recognize different misspelt words, by having a look at the rest of the responses. Thus, for example, one of our informants produced the following responses to the prompt *rice*.

Example: Rice: fish, cheese, chekin.

When the computer asked us to allocate *checkin* in its appropriate section, we initially thought of the word *check-in*, but after having a look at the adjacent responses, we judged that the student was attempting *chicken*.

3.3.2. Lex30 results

In table 1, we can see the mean profile for Lex30. Level 0 words represent 85.60% of our informants' L2 productive vocabulary; followed by Level 3 words (7.47%), Level 1 words (4.94%), and a smattering of Level 2 words (1.99%). Since our subjects are low level learners, it is not surprising that the great majority of their productive vocabulary falls within Level 0 wordsii. One might object that the lowest level is followed by the highest one regarding infrequency of occurrence, but we believe that to some extent this is due to the presence of repetitions of prompt words included within the NiL section, in addition to the output of other words legitimately belonging to that band.

Leaving aside the Level 0 frequency band and the NiL one, which may be problematic due to the drawbacks already noted, we observe that the Level 1 and Level 2 section produce a feasible result, in the sense that our informants provide a higher number of responses included within the 1,000 most frequent content words in English (in JACET list), than within the 2,000 most frequent content words in English. The low figures indicate a low productive vocabulary level on the side of our young testees.

	LEVEL 0	LEVEL 1	LEVEL 2	NiL	LEX30
Mean	102.40	5.91	2.38	8.93	11.31
SD	11.85	5.22	2.41	4.75	6.34

Table 1. Mean profile for Lex30 (n = 282)

Lex30 scores achieved by our sample of informants range from 1 to 37, the mean score being set at 11.31. In figure 6, we can observe the frequency distribution of scores: 52.13 % of informants achieved a score from 1 to 10. The percentage of subjects that achieved a score from 11 to 20 tails off to 38.30 %, and falls to 9.22 % of testees that scored between 21 to 30, which then falls sharply to 0.35 % of learners that achieved a score from 31 to 40. Not surprisingly, Lex30 scores identify a sample of low-level learners, as is represented in the positively skewed distribution of scores.

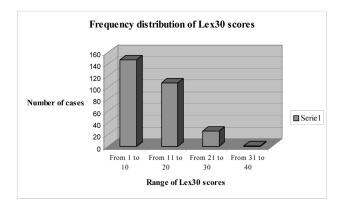


Figure 6. Distribution of Lex30 scores (n = 282)

3.3.3. Lex30 and vocabulary levels test's results

In order to check whether Lex30 scores are an appropriate index of productive vocabulary, we intend to correlate its results with the receptive version of the VLT. Since Level 0 words and NiL section had some hindrances, we will carry out a correlation with each of its bands, first with the 1,000 and secondly with the 2,000 most frequent English content words in each of the tests.

It should be noted that since the Lex30 task and the VLT tasks were carried out on different days within the same week, 13 informants out of the 282 did not sit for the VLT test, that is why, the correlations are carried out with a smaller sample of informants, containing just 269 subjects.

Tables 2 and 3 illustrate the mean number of words elicited by our testees at each of the two different frequency levels. In both tests, our testees produced a higher number of responses in the 1,000 word level than in the 2,000 one, as it should be expected.

	1,000 WL	2,000 WL
No. of items	30	30
Mean	16.77	5.32
S. D.	4.01	3.36

Table 2. Mean profile for VLT (n = 269)

	LEVEL 1	LEVEL 2
Mean	5.81	2.36
SD	4.96	2.39

Table 3. Mean profile for Lex30's Level 1 and Level 2 words (n = 269)

A Pearson correlation of both tests (Lex30 and VLT) showed that even though in absolute terms, the values of the correlations are fairly low, both tests were highly significant not only at the 1,000 word level (r = 0.369, p < 0.01), but also at the 2,000 one (r = 0.293, p < 0.01). It should be noted that it is still possible to draw a straight line (see figures 7 and 8) through the points which minimise the average distance of points from the line, and a tendency can be discerned for the values of one variable to increase as values of the other variable increase.

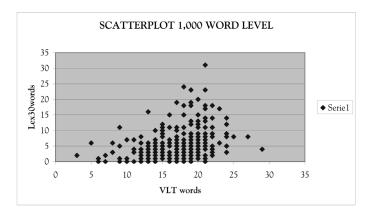


Figure 7. Scatterplot of 1,000 word level

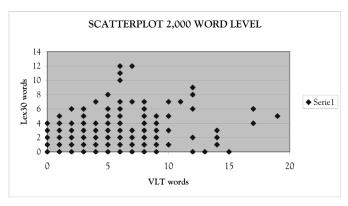


Figure 8. Scatterplot of 2,000 word level

4. Conclusion

This study has stemmed from our interest in disclosing whether Lex30 is an appropriate tool to measure the L2 productive vocabulary of young learners, by overcoming some shortcomings of Lex30 found in previous studies. The methodological drawbacks noted indicate that Lex30 is an exploratory tool which still has to be improved. Clearly, it has the advantage of being an easy-to-administer test, even though the scoring procedure is not an easy task, requiring several important decisions to be consistently taken to avoid anomalous results.

However, the results achieved show that the index produced at Level 1 and Level 2 words can be a feasible one, by getting decreasingly scalable results, as the infrequency of occurrence of words increases. Furthermore, it seems to correlate significantly with another test of receptive vocabulary (VLT).

We –as bona fide researchers- believe that there are several issues which should be taken into account by its authors in order to develop further versions of this test: (a) a decision on which a frequency list should be used to allocate results; (b) a procedure for coping with acronyms which include dots; (c) how to deal with synonyms of English words, for instance in its British English or American English versions, since a word such as *holiday* is considered to be a Level 2 word in the JACET list, whereas *vacation* is included within the NiL section in the same frequency list; and (d) not to award equal scoring to both a correctly spelt word and a misspelt one, since knowing a word also implies knowing its appropriate spelling.

Our results are not conclusive, and therefore further research should be carried out with a different sample of informants from a different L1 background and proficiency level. From our viewpoint, a promising line of enquiry may also be found in the analysis of Lex30 from a qualitative point of view, by analysing the economically elicited responses in order to investigate patterns of associations in young learners' writing.

Acknowledgments

This investigation has been supported by the Spanish Ministry of Science and Technology (Grant no. BFF2003-04009-CO2-02) as part of the research project "The development of lexical competence in the acquisition of L2 English in primary education", University of La Rioja, and Comunidad Autónoma de La Rioja (Grant F.P.I. 2004).

We would like to gratefully acknowledge Professor Paul Nation's sending us the different versions of the Vocabulary Levels Test, Professor Paul Meara and Tess Fitzpatrick's aid in providing us with Lex30 v2.1 before being posted on the net, as well as in responding to our doubts and requests when dealing with this electronic tool.

The authors would also like to thank Professor Christopher Butler for his insightful commentaries on the statistics results and interpretations. However, any shortcomings that may remain are the authors' responsibility.

Thanks are also due to Melania Terrazas Gallego, colleague in the Modern Languages Department at University of La Rioja, who collaborated in the scoring of the different L2 vocabulary tests.

42

¹ It should be noted that further research has aimed to cope with this issue by developing alternative versions of the test for testees with a Romance language background (see Schmitt et al 2001, Moreno Espinosa 2004)

² Answer blanks were also considered by the programme as Level 0 words in order to standardize for a text containing 120 words.

Using Lex30 to measure the L2 productive vocabulary of ...

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43

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