# SPANISH L1 SPEAKERS' AND EFL LEARNERS' AVAILABLE LEXICON ${ }^{1}$ 

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#### Abstract

This research explores the words elicited by 265 efl students in their second year of baccalaureate (A level courses) in response to nine prompts of a lexical availability task and it compares the results with previous studies on Spanish L1 lexical availability made with native students of their same educational level. It is a descriptive study in which we intend to prove if (i) there exists quantitative differences in the number of words retrieved by the Spanish L1 speakers and the efl learners and whether (ii) the most and least productive prompts coincide in each group of informants. Mean values are used to set this comparison and cue words are classified from the most to the least productive ones. Our findings reveal that Spanish L1 speakers elicit a higher number of words being 'Food and Drink' one of the most productive prompts in L1 and efl whereas 'Countryside' is one of the least productive prompts.


Keywords: $2^{\text {nd }}$ year of baccalaureate (A level courses), Lexical availability, efl, Spanish L1, Mean values.

## LÉXICO DISPONIBLE DE HABLANTES DE ESPAÑOLL1 Y ESTUDIANTES DE INGLÉS COMO LENGUA EXTRANJERA

## Resumen

Este estudio examina las palabras producidas por 265 estudiantes de inglés de $2 .{ }^{\circ}$ Bachillerato en respuesta a nueve centros de interés de una prueba de disponibilidad léxica y compara sus resultados con los obtenidos por hablantes nativos de español de su mismo nivel educativo. Se trata de un estudio descriptivo en el que se pretende com-

[^0]probar si (i) existen diferencias cuantitativas en el número de palabras producidas por los hablantes nativos y los aprendices de inglés y analizar si (ii) los centros de interés más y menos productivos coinciden para cada grupo de informantes. Para establecer esta comparación se emplean las medias obtenidas en cada uno de los centros de interés estudiados clasificándolos de más a menos productivo. Los resultados revelan que los hablantes nativos de español producen un mayor número de palabras. 'Alimentos y Bebidas' es uno de los centros de interés más productivos en L1 y le mientras que 'El Campo' es uno de los menos productivos.

Palabras clave: 2. ${ }^{\circ}$ Bachillerato, disponibilidad léxica, inglés como lengua extranjera, español L1, medias.

## 1. Introduction

Studies on lexical availability (la) have progressively gained importance in L1 and Foreign Language (fl) to explore the lexicon students have stored in their minds and are able to elicit in response to a word stimulus (centre of interest). In this vein, a great bulk of la research has explored the number of words that emerge in response to a cue word in native speakers of Spanish (Azurmendi, 1983; Hernández Muñoz, 2010; López Morales, 1973; Rodríguez Muñoz \& Muñoz Hernández, 2011; Serrano Zapata, 2004).

In recent decades, academics have started exploring the influence of la with either adult English as a Foreign Language (efl) learners (Gallardo del Puerto \& Martínez Adrián, 2014), young learners (Agustín Llach \& Fernández Fontecha, 2014; Jiménez Catalán \& Ojeda Alba, 2009) and teenagers (Fernández Orío \& Jiménez Catalán, 2015; Jiménez Catalán \& Fitzpatrick, 2014). However, there is a lack of research in regard with the available lexicon of Spanish efl learners at the end of $2^{\text {nd }}$ baccalaureate. What is more, to our knowledge, there is an avenue for research to explore the la of native speakers of Spanish and efl learners at this educational level. Hence, this paper tries to compare Spanish L1 speakers' and efl students' word elicitation in response to nine prompts from the la task (i.e. Parts of the body, Clothes, Food and drink, School, Town, Countryside, Animals, Hobbies and Professions). The first section reviews la studies with $2^{\text {nd }}$ baccalaureate Spanish L1 speakers and compares their findings with current research on younger and older efl learners' la. A report of the study conducted with main results found and interpretation of the same follows. This paper concludes by pointing out some lines for further research trying to overcome its main limitations.

## 2. Lexical Availability in L1 and efl

Lexical availability studies arose in France in the late 1950's. Originally, their aim was to research the frequent vocabulary included in the texts used
to teach French to elementary students. This analysis soon proved to be an inappropriate methodology for identifying other lexical units that did not appear in their texts, that is the reason for the introduction of association to distinguish between "frequent words" and "available words" (Gougenheim et al., 1964). Lexical availability tasks, then, were an artificial way of bringing to the surface the words available for immediate use by a given speaker, or a specific group of speakers. To explore students' available lexicon they designed a written task which included fifteen semantic fields or centres of interest related to daily situations: partes del cuerpo, la ropa, partes de la casa sin los muebles, muebles de la casa, alimentos y bebidas, objetos colocados en la mesa para comer, la cocina y sus utensilios, la escuela, calefacción e iluminación, la ciudad, el campo, medios de transporte, animales, juegos y diversiones y profesiones. This new trend in lexical studies came to be understood as the vocabulary flow usable in a given communicative situation.
la studies gained followers all around the world and gave birth to the studies on the available lexicon of Spanish L1 speakers in Latin America and Spain (Azurmendi, 1983; López Chávez \& Strassburguer Frías, 1991; López Morales, 1973; Alba Ovalle, 1995; Echeverría \& Valencia, 1999). However, it was not until the turn of the century when studies with $2^{\text {nd }}$ baccalaureate Spanish L1 students emerged (Ahumada, 2006; Arnal et al., 2004; Ávila Muñoz, 2006; Ayora Esteban, 2006; Bartol Hernández, 2004; Bellón Fernández, 2011; Benítez Pérez, 1994; Carcedo González, 2001, Fernández Juncal, 2013; Pastor Millán \& Sánchez García, 2008; Pérez Jiménez, 2016; Prado Aragonés \& Galloso Camacho, 2005 and 2015). All these studies purported that 'Animales (Animals)'was the centre of interest with the highest mean values. As opposed to research on lexical availability in efl (e.g. Jiménez Catalán \& Ojeda Alba, 2009) which will be discussed later in this section, L1 research do not account for the reasons why learners produced these amount of words in response to the cue word 'Animals' since their goals were to illustrate their readers with a description on the main characteristics of these terms (e.g. prevalence of simple or compound words) and their sociolinguistic variation among the populations object of their investigations.
'Comidas y bebidas (Food and Drink)' was the second most productive cue word in L1 literature, regardless of Prado Aragonés \& Galloso Camacho’s (2015) study with students from Badajoz where it occupied the $6^{\text {th }}$ position. On the contrary, 'Juegos $y$ diversiones (Hobbies)' presented the lowest scores in the abovementioned literature except for Benítez Pérez (1994) in which 'ElCampo (Countryside)' was the least productive prompt. It is outstanding that all these researches, which were conducted in different monolingual zones of Spain (i.e. Madrid, Principado de Asturias, Aragón, Soria, Andalusia, Cantabria, Extremadura and La Rioja), obtained similar results. This outcome
seems to indicate that there is a resemblance in the most and least productive cue words at this educational level.

Research on efl learners' available lexicon has recently spread with different age groups in Spain, but, to our knowledge, either younger or older than $2^{\text {nd }}$ baccalaureate students were tested, therefore, the present study tries to open new avenues for research at this educational level.

Jiménez Catalán \& Ojeda Alba (2009) implemented the la task with $6^{\text {th }}$ graders. Their findings revealed that 'Food and Drink' was the prompt with the highest mean values closely followed by ‘Animals'. 'Professions'was the cue word which attained the lowest means. Agustín Llach \& Fernández Fontecha (2014) conducted a research with a group of efl learners at two different stages of their formal instruction ( $6^{\text {th }}$ grade and $9^{\text {th }}$ grade). They stated differences regarding centre of interest productivity in males and females and across educational levels. Thus, 'Animals' was the most productive prompt for $6^{6 \mathrm{th}}$ grade males whereas 'Food and drink' was the one with the highest scores for females. Three years later ( $9^{\text {th }}$ grade) 'Food and drink' remained the most productive for female participants whilst 'School' obtained the highest standards for males. As for the least productive, 'Professions' ranked as the lowest cue word for boys, while 'Countryside' obtained the poorest scores with $9^{\text {th }}$ graders female informants. Jiménez Catalán \& Fitzpatrick (2014) analysed the available lexicon of Spanish efl $6^{\text {th }}$ and $8^{\text {th }}$ graders. Their findings revealed some degree of coincidence with Agustín Llach \& Fernández Fontecha's study since 'Countryside' was the least productive prompt for $8^{\text {th }}$ graders as well as 'Professions' for 6th graders. Similarly, 'School' was the most productive cue word within this age-group whereas 'Food and Drink' obtained the highest results in $6^{\text {th }}$ graders. These results seem to show that the available lexicon efl students possess at this educational level is quite alike. Thus, it would be relevant to explore, as this paper will try to set out, if older efl students' word elicitation purports similar results to the ones obtained in primary and secondary school. What is more, as previously stated, research has not attempted to contrast last grade baccalaureate Spanish L1 students' word elicitation with Spanish efl learners' available lexicon of their same educational level as the present study tries to show.

Scholars have also studied the influence of type of instruction in efl learners' lexical availability. Germany \& Cartes (2000) analysed 15 year-old Chilean efl learners responses to three prompts form the la Task (namely: 'Food, Clothes and House') in three different school contexts: bilingual, private and public. Their findings agreed with the abovementioned studies since 'Food'was the most productive cue word from the three that were examined. Fernández Orío \&Jiménez Catalán (2015) conducted a research with two groups 15-16 year olds. One group followed the traditional curriculum
whereas the other section was immersed the Official Language School (eoi) Programme. Their results corresponded with previous studies with efl learners since 'Food and Drink' was the most productive centre of interest within the eoi group whereas 'Animals' ranked the first in the efl one. Finally, Gallardo del Puerto \& Martínez Adrián (2014) explored word elicitation in false (FBs) and true beginners (TBs) with a sample of senior learners attending Aulas de la Experiencia (University of the Third Age) from the University of the Basque Country. Their findings differed from the ones reviewed in this section since 'Professions' was the most productive prompt for TBs, whereas 'Town'was the one with the highest score in FBs. This apparent variation on informants' performance might be explained on the grounds of this agegroup interests and their lexical selection since they were all adults interested in the labour market and, probably involved in the city life.

Considering the aforementioned studies, we can state that there is a scarcity of research with regard to last year baccalaureate students'la in Spanish L1 and efl. Hence, this study seeks to contribute to narrowing this gap by exploring $2^{\text {nd }}$ baccalaureate students'lexical availability in response to nine prompts from the la task, i.e. Body, Clothes, Food and Drink, School, Town, Countryside, Animals, Hobbies and Professions.

This is a descriptive study, whose aim is to gain a better understanding of L1 and efl learners' lexical availability, by comparing efl results with those obtained by previous research with L1 $2^{\text {nd }}$ baccalaureate students in Spain. We set out to answer the following research questions:

RQ1: Will there be quantitative differences in the words retrieved by Spanish L1 speakers and efl learners?

RQ2: Will the most and least productive prompts be the same in Spanish L1 and efl?

## 3. Methodology

### 3.1. Participants

The sample comprised 265 ( 171 females and 94 males) $2^{\text {nd }}$ year baccalaureate efl learners from five Public High Schools in the same region located in the North of Spain. They represented approximately the 25\% of the total number of students enrolled in $2^{\text {nd }}$ baccalaureate in this Autonomous Community during the academic year 2014-2015. We collected evidence from the capital city, the main towns in the region as well as in rural areas. This made our sample varied and representative of all the autonomous community. We implemented our research only in Public High Schools since there is a greater variability in students' sociocultural background than in private schools.

The la task was administered in March-April 2015. Students answered a background questionnaire to provide the researcher with information about their mother tongue, other languages they spoke at home or in their social interactions, their gender and their previous exposure to efl. As a result of their responses to this questionnaire, we noticed that $95.47 \%$ of the informants were Spanish L1 speakers and did not speak any other language at home. The remaining $4.53 \%$. used other languages at home since their parents were not born in Spain. Nevertheless, they spoke Spanish at school, with their friends and in their daily social encounters. Table 1 shows the languages they knew and the rate of informants who could speakeach language.

Table 1. Students' language profiles

| Language | Percentage |
| :--- | :---: |
| Romanian | 1.89 |
| Arabic | 1.13 |
| Portuguese | 0.68 |
| Armenian | 0.38 |
| Georgian | 0.38 |

High School headmasters signed a consent form, so that the la task could have been administered. They also informed students' parents and tutors. The students whose families did not consent their children to take part in the la task, moved to another room while their classmates answered our test.

### 3.2. Procedures and Instruments

Data was collected one day during class time ( 50 minutes). Students' were asked to respond to the following prompts: 'Parts of the Body', 'Clothes', ‘House', ‘Food and drink', 'Make', ‘School', 'Love', Town', 'Black and White', 'Countryside', ‘Hate', 'Animals', 'Hobbies', 'Sad', and 'Professions.

The time was controlled by the researcher and the participants were given two minutes to write as many words as possible from each of the cue words from the aforementioned word association task. Clear instructions were given both orally and in written form in students' L1 to clarify what they were being asked to do. As stated in the previous section, informants also answered a background questionnaire in Spanish.

This paper focuses on students' responses to nine prompts: 'Parts of the Body’, ‘Clothes', 'Food and drink', 'School', Town', ‘Countryside’, 'Animals’, 'Hobbies' and 'Professions'. These cue words were chosen since they are the same as the ones used in previous research on lexical availability in Spanish

L1 with students of their same educational level (Ahumada, 2006; Arnal et al., 2004; Ávila Muñoz, 2006; Ayora Esteban, 2006; Bartol Hernández, 2004; Bellón Fernández, 2011; Benítez Pérez, 1994; Carcedo González, 2001, Fernández Juncal, 2013; Pastor Millán \& Sánchez García, 2008; Pérez Jiménez, 2016; Prado Aragonés \& Galloso Camacho, 2005 and 2015). They were translated literally into English as done in previous studies on efl lexical availability (Jiménez Catalán \& Ojeda Alba, 2009; Agustín Llach \& Fernández Fontecha, 2014; Gallardo del Puerto \& Martínez Adrián, 2014; Jiménez Catalán \& Fitzpatrick, 2014; Jiménez Catalán et al., 2014; Fernández Orío \& Jiménez Catalán, 2015). The six prompts remaining were discarded either because they were different from the traditional lexical availability task (e.g. 'Love') or because their translation did not correspond exactly with their formulation in the Spanish version of the lexical availability studies (e.g. 'House') (Jiménez Catalán, 2017).

Answers were codified with a number preceded by the letter 'L'to preserve students'identity. The edition of word responses was based on previous studies in the field (JiménezCatalán \& Ojeda Alba, 2009; Samper Hernández \& Jiménez Catalán, 2014; Fernández Orío \& Jiménez Catalán, 2015). Thus, we applied the following criteria: (i) correction of spelling errors, (ii) count of repeated words in the same prompt only once, (iii) discarding Spanish words and deleting proper nouns except for those which refer to cities or countries in their English version (e.g. London, Sweden), (iv) change of plural words into singular unless they were plural in English (e.g. trousers), (v) change of verb forms to bare infinitive unless they appeared as lexical entries in dictionaries, (vi) keeping irregular verb forms and counting them as different tokens, (vii) count of abbreviations (e.g mum) if they were included as lexical entries in dictionaries, (vii) hyphening lexical units with a lexicalised meaning (e.g. fish-and-chips) and (viii) deletion of titles of films or books.

The edited responses per prompt and per student were, then, introduced in a Microsoft Excel ${ }^{\circ}$ file in order to run quantitative analysis. Wordsmith Tools version 5 was used in order to identify the number of tokens (i.e. examples of occurrences of a type) and types (i.e. a class of linguistic items) (Nation, 2001) of our sample, Mean values were taken into account in order to compare our sample of informants with previous research in Spanish L1 since there was a great variability with regard to the number of participants in each of the reviewed research. Hence, these mean values helped determine if there were quantitative differences in word elicitation among Spanish speakers and efl learners as well as to show if the most and least productive prompts varied according to the same variables (i.e. Spanish L1 speaker, foreign language learner).

## 4. Results

This section sets out to compare the available lexicon of a sample of $2^{\text {nd }}$ baccalaureate efl learners with Spanish L1 speakers of their educational level. We will start by presenting the total number of tokens and types retrieved by the efl sample in response to the aforementioned discussed prompts from the la task (i.e. 'Body, Clothes, Food and Drink, School, Town, Countryside, Animals, Hobbies and Professions'). A comparison of the mean values obtained by the Spanish L1 and efl samples will follow in order to explore quantitative differences in terms of cue word elicitation (RQ1).

As regards the most and least productive centres of interest, a comparison will be set among the first five most productive prompts and the three least productive ones. We will finish this section by comparing efl learners' results in terms of quantitative differences and cue word productivity with Pérez Jiménez (2016) as her study was conducted with Spanish speakers in the same region as our own research with efl learners.

As illustrated in table 2, efl learners retrieved total number of 36516 tokens and 4374 types. Their responses presented a certain degree of variation in regard with number tokens and cue words with a difference of more than 2000 words from the most productive prompt (School) to the lowest one (Professions). As expected the number of types reduced considerably in comparison with the number of tokens. This data might imply that learners have stored a certain number of words in their minds and these lexical items were mostly the same in the most productive prompts (e.g. salad attained 112 occurrences in 'Food and Drink') whereas they varied in the least productive ones (e.g. cottagewas used in 14 responses to 'Countryside'). This argument also accounts for the variation in terms of the token/type productivity since the most productive centre of interest in terms of type elicitation was 'Countryside' whereas 'School' ranked the highest as far as tokens were concerned.

Once we have described our students' global results, we move to answer our RQ1 (Will there be quantitative differences in the words retrieved by Spanish L1 speakers and efl learners?). As shown in Table 3, Spanish L1 speakers elicited more words than efl learners, as stated in the mean values obtained for each of the prompts. This higher word elicitation is more noticeable in seven of the nine centres of interest analysed in the present study ('Parts of the Body, Clothes, Food and Drink, Town, Countryside, Animals, and Professions') since the studies reviewed with Spanish speakers obtained higher mean values.

As far as 'School' is concerned, our informants obtained slightly better scores than two groups of L1 speakers from the south of Spain (Ahumada,

2006; Pastor Millán \& Sánchez García, 2008). In regard with 'Hobbies', our students produced more words than Pastor Millán \& Sánchez García (2008) and remained quite close to Ávila Muñoz (2006).

Table 2. efl learners' tokens and types

| Ranking | Prompt | Tokens | Types |
| :---: | :--- | :---: | :---: |
| 1 | School | 5,243 | 643 |
| 2 | Food and Drink | 4,824 | 391 |
| 3 | Animals | 4,454 | 477 |
| 4 | Town | 4,232 | 629 |
| 5 | Hobbies | 4,062 | 588 |
| 6 | Parts of the Body | 3,972 | 185 |
| 7 | Clothes | 3,362 | 223 |
| 8 | Countryside | 3,303 | 740 |
| 9 | Professions | 3,064 | 498 |
| Total |  | 36,516 | 4,374 |

As for RQ2 (Will the most and least productive prompts be the same in L1 and efl?), the most productive prompt varied according to informants' native or foreign language. Hence, 'Animals' obtained the highest mean values in Spanish L1 speakers whereas 'School' occupied the first position in the efl ranking. Nevertheless, 'Animals'was quite productive in efl students since it occupied the third position in terms of prompt productivity. On the contrary, 'School' was less productive in Spanish L1 since it was the $3{ }^{\text {rd }}$ most productive cue word in the ranking only in three L1 studies (Bartol Hernández, 2004; Prado Aragonés \& Gallego Camacho, 2005 and 2015) whereas it achieved 5th-7th positions in $53.84 \%$ of the reviewed literature.
'Food and Drink' was the second most productive centre of interest in L1 and efl. Town' obtained similar mean values among efl and L1 speakers sinceitranked the $4^{\text {th }}$ in efland occupied the same position in $58.33 \%$ of L1 reviewed research. 'Hobbies' behaved completely different since it was quite productive in efl (5 ${ }^{\text {th }}$ position) but it was the last one in terms of productivity in $92.3 \%$ of Spanish L1 literature. On the contrary, 'Parts of the Body' occupied the third position $83.3 \%$ of L1 studies, but it was less productive in our efl sample ( $6^{\text {th }}$ place). Similarly, 'Clothes' was more productive in L1 as it ranked $5^{\text {th }}$ in $61.5 \%$ of $L 1$ research and it ranked $7^{\text {th }}$ in our sample.
'Professions' attained the lowest mean values in efl learners' responses to the la task. This centre of interest was not homogenous in L1 studies

Table 3. Mean values Spanish L1 speakers and efl learners

| Prompts | $\begin{aligned} & \text { Beniter } \\ & \text { (1994) } \end{aligned}$ | $\begin{gathered} \text { Carredo } \\ (2001) \end{gathered}$ | Arnal et al. (2004) | $\begin{aligned} & \text { Bartol } \\ & \text { (2004) } \end{aligned}$ | Prado * Galloso (2005) | $\begin{aligned} & \text { Abumada } \\ & \text { (2006) } \end{aligned}$ | $\begin{aligned} & \text { Avila } \\ & \text { (2006) } \end{aligned}$ | $\begin{aligned} & \text { Ayora } \\ & (2006) \end{aligned}$ | $\begin{aligned} & \text { Pastor } \\ & \text { \& } \\ & \text { Sanchez } \\ & (2008) \end{aligned}$ | $\begin{aligned} & \text { Bellón } \\ & \text { (2011) } \end{aligned}$ | $\begin{array}{\|c} \text { Fernández } \\ \text { (2013) } \end{array}$ | Prado \& Galloso (2015) |  | $\begin{aligned} & \text { Pérex } \\ & (2016) \end{aligned}$ | efl |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  | Các. | Bad. |  |  |
| Parts of the Body | 25.66 | 24.9 | 26.4 | 24.82 | 24.44 | 24 | 22.4 | 24.9 | 22.77 | 25.52 | 22.58 | 23.54 | 22.92 | 23.46 | 14.99 |
| Clothes | 21.97 | 21.8 | 23.6 | 23.16 | 20 | 21.4 | 19.3 | 20.44 | 19.28 | 22.07 | 21.08 | 22.29 | 20.89 | 21.84 | 12.69 |
| Food and Drink | 27.42 | 25.3 | 28.3 | 27.09 | 27.4 | 25.05 | 23.1 | 25.59 | 24.37 | 26.46 | 25.54 | 26.41 | 20.73 | 24.98 | 18.20 |
| School | 22.66 | 21.3 | 24.1 | 26.13 | 26 | 19.6 | 20.4 | 21.72 | 19.54 | 22.79 | 22.97 | 24.47 | 22.92 | 21.69 | 19.78 |
| Town | 19.13 | 21.6 | 23.3 | 23.96 | 22.09 | 22.19 | 22.1 | 23.52 | 21.22 | 23.83 | 20.98 | 21.28 | 20.42 | 22.58 | 16.13 |
| Countryside | 13.23 | 19.0 | 22.2 | 22.55 | 21.6 | 19.81 | 18.2 | 19.97 | 18.81 | 21.5 | 19.16 | 21.47 | 20.45 | 20.87 | 12.46 |
| Animals | 30.08 | 28.5 | 29.9 | 29.18 | 27.71 | 26.64 | 24.7 | 27.37 | 25.08 | 28.66 | 26.55 | 28.28 | 26.07 | 26.46 | 16.80 |
| Hobbies | 20.31 | 18.3 | 20.3 | 20.97 | 18.63 | 17.53 | 16.1 | 18.42 | 14.49 | 19.23 | 17.18 | 17.82 | 16.99 | 16.87 | 15.39 |
| Professions | 15.22 | 22.0 | 23.4 | 22.93 | 21.79 | 21.33 | 19.3 | 22.08 | 20.58 | 22.79 | 20.64 | 21.95 | 21.17 | 20.66 | 11.56 |

since it achieved diverse positions in the scale, fluctuating from the $4^{\text {th }}$ place ( $8.33 \%$ ) to the $7^{\text {th }}$ (33.3\%). Finally, 'Countryside' depicted similar results in L1 and efl as it ranked the $8^{\text {th }}$ in efl and occupied the same position in 69.2\% of L1 research.

To finish with this section, we will compare our informants' mean values with Pérez Jiménez's (2016) since, as abovementioned, both pieces of research were conducted in the same region and educational level. In the same vein as previous L1 studies, Pérez Jiménez's informants obtained higher scores than our sample of efl students in all the prompts. As for RQ2, some coincidences can be stated in both samples in regard with 'Food and Drink' and 'Town' as native speakers and efl learners' word elicitation revealed that the aforementioned centres of interest attained the same positions in cue word productivity (i.e $2^{\text {nd }}$ and $4^{\text {th }}$, respectively). 'Animals' behaved in the same way as in the abovementioned L1 literature. Therefore, it ranked the $1^{\text {st }}$ in L1 and the $3^{\text {rd }}$ in efl learners. Similarly, 'Countryside' and 'Professions' remained among the three least productive prompts in our sample and Pérez Jiménez's study. It is also relevant that 'Town' obtained the same place $\left(4^{\text {th }}\right)$ in Riojan L1 and efl learners. 'Parts of the body' and 'Clothes' attained the same results as the abovementioned L1 studies, hence there is a certain degree of difference in efl and L1 word elicitation in response to these two prompts.

Finally, as far as 'Hobbies' is concerned, informants' word elicitation varied greatly from efl's $5^{\text {th }}$ place L1's last position. Table 4 illustrates the aforementioned outcomes.

Table 4. Mean value and cue word ranking efl and L1 in La Rioja

| Ranking | efl |  | Pérez Jiméner. (2016) |  |
| :---: | :--- | :---: | :--- | :---: |
|  | Prompt | Mean | Prompt | Mean |
| 1 | School | 19.78 | Animales | 26.46 |
| 2 | Food and Drink | 18.20 | Alimentos y Bebidas | 24.98 |
| 3 | Animals | 16.80 | Partes del cuerpo | 23.46 |
| 4 | Town | 16.13 | La ciudad | 22.58 |
| 5 | Hobbies | 15.39 | La ropa | 21.84 |
| 6 | Parts of the Body | 14.99 | La escuela | 21.69 |
| 7 | Clothes | 12.69 | El Campo | 20.87 |
| 8 | Countryside | 12.46 | Profesiones | 20.66 |
| 9 | Professions | 11.56 | Juegos y distracciones | 16.87 |

## 5. Discussion

Research question one posed whether there would be quantitative differences in the words retrieved by Spanish L1 speakers and efl learners in response to nine prompts from a traditional la task. Our findings proved that this is indeed what happened. The data showed how in comparison with efl learners, Spanish L1 speakers retrieved a higher number of words in all the prompts analysed in the present study. This result concurred with previous studies on Spanish L1 and Spanish as a foreign language since native speakers outperformed foreign language learners (Šifrar Kajan, 2012), and English L1 speakers obtained better results than L2 learners (Ferreira Campos \& Echevarria, 2014). These findings confirmed that native speakers have a wider available lexicon than fl learners and corroborated Ferreira Campos \& Echeverría's (2014) assertion that efl students have not been exposed to the vocabulary L1 speakers use in everyday life. Therefore, they were not selective and words from L1 and fl became activated and competed for selection during word production (interference). On the contrary, L1 speakers were mostly monolingual so they did not have to face this competition.

We now move on to the discussion of the findings related to our second research question, in which we wanted to know if the most productive prompts would differ according to L1 and efl. efl learners' most productive prompt was 'School', whereas L1 speakers attained the highest mean values in 'Animals'. These outcomes concurred with a study conducted with a group of Spanish efl $8^{\text {th }}$ graders where 'School'was the most productive centre of interest (Jiménez Catalán \& Fitzpatrick, 2014) and a research with a sample of male $9^{\text {th }}$ graders (Agustín Llach \& Fernández Fontecha, 2014). This higher degree of productivity could be explained in terms of the input Spanish efl learners have been exposed to during their schooling as 'School' is a recurrent topic in their curricula since they start their formal instruction (Decreto 24/2014, de 13 de junio; Decreto 5/2011, de 28 de enero). On the contrary, Spanish curricula do not pay the same attention to this centre of interest in Spanish Language to focus on other aspects such as grammar and literacy, hence L1 Spanish speakers' word elicitation diminished. This argument also accounts for the fact efl learners achieved higher mean values in this prompt than two groups of Spanish L1 speakers in Andalusia (Ahumada, 2006; Pastor Millán \& Sánchez García, 2008). In this same vein, Gallardo del Puerto \& Martínez Adrián (2014) purported lower productivity as far as 'School' was concerned with their group of adult efl learners. Nevertheless, this result cannot be conclusive as long as three studies conducted with $2^{\text {nd }}$ baccalaureate students in Soria (Bartol Hernández, 2004), Andalusia (Prado Aragonés \& Galloso Camacho, 2005) and Cáceres (Prado Aragonés \& Galloso

Camacho, 2015) obtained higher word elicitation in response to 'School'. Therefore, further research is called to analyse the different variables (e.g. age, type of instruction and place of birth) that might influence on students' higher or lower word elicitation in response to this centre of interest.

Our study corroborated previous research since 'Food and drink' was the second most productive prompt. This result concurred previous studies with efl learners (Germany \&o Cartes, 2000; Jiménez Catalán, 2009; Agustín Llach \& Fernández Fontecha, 2014, Jiménez Catalán \&\% Fitzpatrick, 2014; Gallardo del Puerto \& Martínez Adrián, 2014). In the same way, Spanish L1 studies have shown agreement in pointing out at 'Food and Drink' as a very productive prompt (Ahumada, 2006; Arnal etal., 2004; Ávila Muñoz, 2006; Ayora Esteban, 2006; Bartol Hernández, 2004; Bellón Fernández, 2011; Carcedo González, 2001, Fernández Juncal, 2013; Pastor Millán \&\& Sánchez García, 2008; Pérez Jiménez, 2016; Prado Aragonés \& Galloso Camacho, 2005). Our finding could be interpreted on a twofold basis: (i) learners'great exposure to this centre of interest from an early age (Jiménez Catalán \&O Ojeda Alba, 2009; Fernández Orío \& Jiménez Catalán, 2015), and (ii) the words could have been acquired earlier and more internalised in learners' minds and, therefore, they become more available (Catling \&\% Johnson, 2005).
'Animals' attained the highest mean scores in former L1 literature which coincided with previous studies on last grade primary efl learners (Jiménez Catalán \& Ojeda Alba, 2009). However, our results evinced that there was a slight decrease in students' available lexicon as far as this centre of interest was concerned since it occupied the $3^{\text {rd }}$ position in the ranking. These findings seem to show a parallelism with previous research with secondary school Spanish efl learners (Agustín Llach \& Fernández Fontecha, 2014; Jiménez Catalán \& Fitzpatrick, 2014) since their data revealed a slight decrease in productivity from $6^{\text {th }}$ to $8^{\text {th }}$ and $9^{\text {th }}$ graders, respectively. The lower degree of productivity could be explained in terms of the input Spanish efl learners have received since 'Animals' is a pivotal semantic field in pre-primary and primary education, but it diminishes its teaching load in secondary school and baccalaureate. This fact might imply that learners'attained their highest rates of productivity in this prompt at the end of their primary education. Adult Basque efl learners' results (Gallardo del Puerto \& Martínez Adrián, 2014) seem to support our assertion because 'Animals' was the $6^{\text {th }}$ most productive cue word from both FBs and TBs. Nevertheless, further research is needed to ascertain this working hypothesis by analysing the same group of informants at the end of their primary, secondary and baccalaureate instruction to compare their performance in this particular prompt.
'Town' behaved similarly in Spanish L1 and efl responses and occupied a mid-position in both classifications. This tendency is shared in previous
studies with primary and secondary school efl students (Jiménez Catalán \& Ojeda Alba, 2009; Agustín Llach \& Fernández Fontecha, 2014), adults (Gallardo del Puerto \& Martínez Adrián, 2014) and Spanish fl learners (Šifrar Kajan, 2012). This finding seems to indicate that 'Town' gains importance either for native speakers or foreign language learners since, nowadays people prefer to live in towns or cities and, therefore they might feel a need to know more words about this cue word in order to socialize. What is more, efl materials tend to include topics related to this centre of interest from primary level, which seems to favour word retention and retrieval.

On the contrary, 'Parts of the Body' and 'Clothes' behaved quite different among L1 speakers and efl learners. Thus, 'Parts of the Body'was among the three most productive semantic fields in most L1 research whereas it was one of the least productive ones in efl. This result concurs with previous research adult efl learners in Spain since 'Parts of the Body' occupied a mid-low position (Gallardo del Puerto \& Martínez Adrián, 2014). Nevertheless, our data do not agree with the results obtained in former studies with Spanish primary and secondary school learners (Jiménez Catalán \& Ojeda Alba, 2009; Agustín Llach \& Fernández Fontecha, 2014). As happened with 'Animals'Spanish efl learners have received input on 'Parts of the Body' in primary and lower secondary, but its teaching load practically disappears in upper secondary and baccalaureate. This absence of vocabulary related to body parts in these two educational levels could have been mitigated by means of Content and Language Integrated (clil) programmes in which Biology were taught through English. clil instruction might, then, promote efl students'exposure to specific vocabulary on this centre of interest (e.g. articulatory system, nutrition, disease...). As a result of this type of instruction, their word elicitation in this prompt could be improved. However, this is just mere speculation since it was not the aim of the study. Henceforth, further research can be done to test this hypothesis.

As for 'Clothes', it attained a mid-position in most of L1 studies (61.5\%) whereas it was one of the lowest three in our sample. Our data coincide with previous studies with younger (Jiménez Catalán \& Ojeda Alba, 2009; Jiménez Catalán \& Fitzpatrick, 2014) and adult efl learners (Gallardo del Puerto \& Martínez Adrián, 2014) in Spain. The limited amount words students can associate with this centre of interest (e.g. trousers, t-shirt, skirt...) can account for the limited number of tokens they have elicited in their responses.
'Hobbies'was quite productive in our sample in contrast with $92.3 \%$ of L1 literature where it attained the lowest rate in the ranking. Our findings are in line with previous efl studies as 'Hobbies' tended to occupy a midposition regardless of the age of the informants (Agustín Llach \& Fernández

Fontecha, 2014; Jiménez Catalán \& Fitzpatrick, 2014; Jiménez Catalán \& Ojeda Alba, 2009; Gallardo del Puerto \& Martínez Adrián, 2014). As was the case of 'School', 'Hobbies' is a recurrent topic in Spanish efl curricula for early primary (Decreto 24/2014, de 13 de junio) to upper secondary (Decreto 5/2011, de 28 de enero), which supports the hypothesis that longer exposure to a given semantic field favours learner retention and word elicitation (Hernández Muñoz et al., 2014).
'Professions' purported different results in L1 and efl. As for efl, it was the lowest cue word in the ranking whereas in L1 it fluctuated from the $4^{\text {th }}-7^{\text {th }}$ position. In light of this inconsistency, we consider relevant to compare our findings in this prompt with those obtained by Pérez Jiménez (2016) with L1 speakers from the same region. We ascertained that it achieved the second lowest prompt rate in her sample. This outcome seems to indicate that it was not very productive regardless of the language in which the la task was developed. As reported previously, language exposure to the cue word, which was scarce can account for this low productivity. What is more and as occurred with 'Clothes', the reduced number of words that allude to 'Professions' constitute our second interpretation. As a final point, we agree with Agustín Llach \& Fernández Fontecha's (2014) assertion that this semantic field might be less accessible to our informants because it was not in their immediate universe as most of them just thought about the university degree they would like to study, but did not pay much attention to other professions.

Finally, 'Countryside' purported similar rates both in L1 and efl. Apart from, the abovementioned arguments about exposure and accessibility to the prompt, it is noteworthy the fact that villages are less populated than ever before. Therefore, students usually live in towns and do not see the point in learning specific words about the countryside since it is quite unlikely that they would use them in the future.

## 6. Conclusion

Our study was intended into covering that gap in research addressing $2^{\text {nd }}$ baccalaureate Spanish L1 and efl learners' lexical availability. Three main findings stand out in this research. First, Spanish L1 speakers retrieved a higher number of words in the nine prompts analysed in the study. Second, 'Food and Drink' and 'Town' occupied the same positions in both efl and L1 prompt ranking, but our outcomes purported a different behaviour with regard to the least productive prompts. Thus, 'Professions' ranked as the least productive in efl whereas 'Hobbies' was the last in most L1 studies. The present results also confirmed previous findings in lexical availability
studies with younger efl learners in Spain. This systematicity in results leads us to believe that the lexical availability task is a reliable task that throws consistent results to test L1 and efl available lexicon, making it thus a very appropriate measure of lexical development. Third, from a pedagogic point of view our results suggest that efl teaching should pay attention to those areas or semantic fields, where learners are least productive. In this sense, explicit vocabulary instruction of words from the field of clothes, countryside or professions can contribute enriching learners' lexical repertoire.

Nevertheless, we recognize the limitations of the present study. First, we have just relied on the educationallaw in force at the time of data collection to establish the contents, vocabulary and topics that should be developed in efl classrooms. Hence, we should have controlled for the input contained in efl textbooks. Further research is thus called to analyse the vocabulary included in $2^{\text {nd }}$ baccalaureate efl textbooks to see the number of tokens, which refer to the centres of interest of the la task. This textbook analysis will show the words leaners have been exposed to during their efl instruction and display the lexical items they have stored in their minds and are able to elicit in response to the la task.

Another limitation of the present research is that we have taken for granted that the level of competence in English of our efl informants was alike since they were all enrolled in $2^{\text {nd }}$ baccalaureate. Further studies should include a proficiency level test (e.g. Oxford Placement Test) to find out if different levels of proficiency might influence on the number of words retrieved by students in response to each prompt. Furthermore, nowadays, students who followed Content and Language Integrated (clil) Programmes in primary and secondary school have finished compulsory education and most of them have reached baccalaureate. Therefore, there is a need for studies which focus on the words these groups students may retrieve in response to specific prompts (e.g. 'Parts of the Body') if they, for instance, have learnt Natural Sciences and Biology through English to compare their number of responses with learners enrolled in traditional efl programmes.

Gender-related differences in the lexical availability task at $2^{\text {nd }}$ baccalaureate level have not been explored yet. Consequently, it might be very helpful in terms of education to ascertain whether the quantitative differences in favour of girls observed in previous research with younger efl learners will be also observed in the available lexicon of older learners, in particular, on those at $2^{\text {nd }}$ baccalaureate.

Finally, intercultural communication and the development of intercultural communicative competence are gaining importance in Spanish efl curricula. Thus, it would be noteworthy to analyse the cultural words elicited by our
sample of $2^{\text {nd }}$ baccalaureate students in response to some prompts form the la task (e.g. 'Food and Drink') and contrast them with the input provided in their textbooks to ascertain the cultural conceptualizations they will be able to construct according to their own cultural values and the input they have received during their formal instruction.

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[^0]:    ${ }^{1}$ We would like to acknowledge the financial support of the Spanish Ministry of Economy and Competitiveness through grant n. ${ }^{\circ}$ FFI 2013-47707-P.

