

VOCABULARY KNOWLEDGE DIMENSIONS IN EFL TEXTBOOKS

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Abstract

Textbooks are important tools to develop the lexical competence of English foreign language learners. However teachers and researchers have paid little attention to the language input contained in textbooks, particularly as far as the representation of knowledge dimensions in vocabulary activities is concerned. The present study pursued two objectives. Firstly, it aimed at the identification of the dimensions involved in the vocabulary activities included in two English textbooks used in the last year of Spanish compulsory education (4th year ESO). Secondly, it aimed at ascertaining whether there were differences in the distribution of vocabulary knowledge dimensions in two textbooks of the same level. Results show that the distribution of vocabulary knowledge dimensions is different in the two textbooks under examination, which may give rise to differences in learners' lexical acquisition and output.

Key words: *vocabulary knowledge dimensions, textbooks, EFL, lexical competence.*

Resumen

Los libros de texto son herramientas importantes para el desarrollo de la competencia léxica de los estudiantes de inglés como lengua extranjera. Sin embargo, no todos los libros de texto dan la misma importancia al vocabulario, especialmente a la representación de las dimensiones léxicas en cada actividad. Por ello, los objetivos de este estudio son identificar las dimensiones léxicas que aparecen en las actividades de dos libros de texto de inglés como lengua extranjera en 4º de ESO y encontrar las diferencias existentes entre estos dos libros del mismo nivel. Los resultados muestran que hay diferencias significativas entre los dos libros y que la distribución de las dimensiones léxicas es bastante heterogénea lo cual puede afectar el desarrollo de la competencia léxica de los aprendices de inglés.

Palabras clave: *dimensiones léxicas, libros de texto, inglés como lengua extranjera, competencia léxica.*

1. Introduction

Textbooks are considered as the main resource in English foreign language teaching. They are containers of information and guides to the study of the target language (Jiménez and Mancebo 2008). Textbooks are influential as the quantity and quality of the language input contained in them can have a positive or negative effect on learners' language acquisition and development. For instance, as far as vocabulary input is concerned, Donzelli (2007) showed the close relation between vocabulary input and vocabulary uptake.

Since Richards' 1976 seminal article in which he established eight dimensions of *what it means to know a word*, dimensions later extended by Nation (1990), many scholars have proposed taxonomies of vocabulary knowledge. They may differ in the number and the nature of the dimensions but basically, as Jiménez Catalán (2002) notes, most classifications can be grouped into grammar and semantics dimensions of vocabulary knowledge, other aspects such as the vocabulary retrieval and store in learners' mental lexicon and the pedagogy of vocabulary teaching or learning are neglected.

Many studies have analysed the vocabulary input in foreign language learners' textbooks from different perspectives, such as vocabulary selection and presentation, external and internal word frequency, rank

order, word distribution or the relation between input and uptake. Chart 1 displays a selection of studies distributed by focus, target language, language or educational level and method used in the analysis. As can be observed, most research on vocabulary in textbooks has focused on word frequency. Little attention has been paid to the analysis of dimensions of word knowledge underlying in vocabulary activities.

Chart 1 Perspectives on the analysis of vocabulary in textbooks

Study	Focus	language	Level	Method
López-Jiménez 2014	Vocabulary selection, organization and presentation	Spanish	Beginner Intermediate Advanced	Content analysis
Marmol 2011	Word frequency Word type Word density	English	Beginner 3 rd Primary Education	RANGE
Criado and Sánchez 2009	Word frequency and distribution	English	Intermediate 2 nd Baccalaureate	RANGE
Godev 2009	Word frequency Vocabulary selection Word lists	Spanish	College students	Frequency dictionary
Jiménez-Catalán and Mancebo 2008	Word type 50 Top frequent words Distribution of word categories Shared and non-shared vocabulary Vocabulary input increase	English	6 th primary 10 th secondary (4 ESO)	WordSmith Tools
Donzelli 2007	Word frequency Vocabulary input Vocabulary uptake	English	Children -course level not specified	Range

Given the role played by textbooks and vocabulary in foreign language education it is important for teachers and researchers to examine vocabulary input in learners' textbooks. The present study responds to this need. Likewise, it also aims to contribute to narrow the gap in the study of pedagogical dimensions, usually overlooked in vocabulary knowledge taxonomies. This is a preliminary step in this regard. Our objectives were twofold. The first one was to identify the main dimensions of vocabulary knowledge underlying in vocabulary activities in textbooks; the second one was to ascertain whether there were similarities or differences regarding the distribution of vocabulary knowledge dimensions in the targeted textbooks.

2. Method

This preliminary study was based on a content analysis of vocabulary activities drawn from two English textbooks aimed at the last year of Spanish Compulsory Education: *Challenge for ESO 4* (Burlington Books) and *Switch 4* (Oxford). As a framework for our analysis we followed Jiménez Catalán's (2002: 155) classification of vocabulary knowledge dimensions, our translation and adaptation of this classification is included in the following chart.

Chart 2: Vocabulary knowledge dimensions (adapted from Jiménez Catalán (2002:155))

1	Know the grammar, pronunciation and orthography of a word
2	Know the morphology of a word
3	Know the collocability of a word
4	Know the syntactic restrictions of a word
5	Know the frequency in oral and written language of a word
6	Know the contexts where a word can be used
7	Know a word semantic and syntactic relations with other words
8	Recognise the word in its written and oral form
9	Recover the word when it is needed
10	Know the conceptual and referential meaning of a word
11	Know the meanings that the word connotes
12	Know the pragmatic sense of a word

As can be observed in chart 2, each lexical dimension has been given a number. For the sake of clarity we will use those numbers to refer to the vocabulary knowledge dimensions summarized in the Results and Discussion sections.

The steps adopted in the analysis were as follows. First, we identified the vocabulary activities and classified them according to the vocabulary knowledge dimensions displayed in Table 1. Second, we counted the vocabulary activities and the knowledge dimensions in each activity. This provided us with a basis for conducting a comparative analysis of the two textbooks under examination in the present study.

In the process of identification and classification we found some problems that need to be mentioned here. One was the lack of correspondence between some activities and the dimensions in Jiménez Catalán's (2002) framework. For instance, matching or translation did not seem to correspond with the dimensions in straightforward way. Our option was to introduce a new dimension: "Recognise the word in its visual form" (dimension 13). It could be argued that this is not different from "Recognise the word in its written and oral form" (dimension 8). However, in our view, the former includes pictures and words whereas the latter only refers to words. One example of vocabulary activity where learners are required to match words to pictures is the first exercise of *Challenge for ESO 4* introductory unit (Addison and Pamela 2006: 6). Here they are provided with a number of words related to jobs together with six pictures of people standing for the jobs. Similarly, the exercises where learners have to translate words into their mother tongue cover a dimension not contemplated in Jiménez Catalán's (2002) taxonomy. It is true that in order to translate a word the learner

has to know its “conceptual and referential meaning” (dimension 10), but translation involves different cognitive processes, among them word recognition and word equivalence between the source and target language. Because of this we included another new dimension: “translation knowledge” (dimension 14). An example is found in the first exercise of unit 7 (Addison and Pamela 2006: 61). Here learners are required to say what the words in the box (sound, voice, hit, clip, text message, answer a call, download, compose and broadcast) mean in their first language. Apart from that, another problem is the similar representation of dimensions 6 and 12. In our opinion both stand for the same concept as pragmatic knowledge presupposes knowledge of how to use the word in context. An example is found in filling the gaps activities where learners have to insert the words provided in a box into the appropriate blank.

3. Descriptive analysis of vocabulary knowledge dimensions

3.1. Challenge for ESO 4

This textbook published by Burlington Books has an introductory unit (I), 10 content units; three extra units devoted to the review of vocabulary and grammar at the end of every three content units, with the exception of Review 2 that comprises the review of 4 units; and ten “Check your progress” sections devoted to the consolidation of the syllabus. Tables 1 and 2 below display the units of the book together with the resulting number of vocabulary activities per unit. For its part, Table 3 shows the number of vocabulary activities included in the introductory unit, the ten content units and the units that review the syllabus every each three/four content units. Finally, Table 4 provides a summary of the number of vocabulary activities included in the “Check your progress” units. The abbreviations in the first row should be read as follows: *I* stands for introductory unit, *U* for Unit, *R* for Review Unit, and *CYP* stands for the Check your progress units.

Table 1: Distribution of vocabulary activities per unit in *Challenge for ESO 4*

I	U1	U2	U3	R1	U4	U5	U6	U7	R2	U8	U9	U10	R3
5	7	6	6	1	6	5	5	6	1	5	5	6	1

Table 2: Distribution vocabulary activities per unit in *Challenge for ESO 4* “Check your progress” units

CYP 1	CYP 2	CYP 3	CYP 4	CYP 5	CYP 6	CYP 7	CYP 8	CYP 9	CYP 10
2	2	2	2	2	2	2	2	2	2

The total number of vocabulary activities included in this textbook is 85. As can be observed there is an even distribution throughout the units. The vocabulary knowledge dimensions together with the number of activities in which they appear are illustrated in Table 3. A close analysis of the data points to the absence of six vocabulary knowledge dimensions: dimensions number 4, 5, 8, 9, 11 and 12.

Table3: Vocabulary knowledge dimensions in the vocabulary activities of *Challenge for ESO 4*.

Vocabulary knowledge dimensions	No of activities
1. Know the grammar, pronunciation and orthography of a word	2
2. Know the morphology of a word	4
3. Know the collocability of a word	8
6. Know the contexts where a word can be used	30
7. Know a word semantic and syntactic relations with other words	45
10. Know the conceptual and referential meaning of a word	28
13. Recognise the word in its visual form	10
14. Translation knowledge of a word.	1

The figures indicate that the most frequent vocabulary knowledge dimension within *Challenge for ESO 4* is “knowledge of the semantic and syntactic relations between words” (Dimension 4); this is followed by “knowledge of the context where a word can be used” (Dimension 6) and “knowledge of a word conceptual and referential meaning” (Dimension 10). The rest of vocabulary knowledge dimensions are either infrequent (Dimensions 1, 2, 3, 13 and 14) or absent in the vocabulary activities (Dimensions 4, 5, 8, 9, 11 and 12). In light of the figures it seems as this textbook gave more importance to semantic and syntactic relations and context and conceptual and referential meaning than to morphology, word frequency, recovering a word when needed, or orthography.

3.2. *Switch 4*

This textbook, published by Oxford, comprises an introductory unit, nine content units and three review units. Although it has fewer units than *Challenge for ESO 4*, every unit contains more vocabulary activities than *Challenge for ESO 4*. Table 4 displays the distribution of the number of vocabulary activities per unit. The abbreviations in the first row should be read as follows: I stands for introductory unit, U for Unit, and R for Review Unit.

Table 4: Distribution of vocabulary activities per unit in *Switch 4*

Unit	I	U1	U 2	U3	R1	U4	U5	U6	R2	U7	U8	U9	R3
<i>N</i>	8	14	11	15	10	12	13	14	9	14	14	13	10

Therefore, the total number of vocabulary activities of *Switch 4* is 157, a higher number than *Challenge for ESO 4*. Table 5 shows the dimensions underlying in the vocabulary activities of *Switch 4*: 1, 2, 3, 4, 6, 7, 8, and 10. And as can observed the number of activities in which each dimension is involved is higher in this textbook than in *Challenge for ESO 4*. This is down to the fact that *Switch 4* contains a higher number of vocabulary activities. Furthermore there are two dimensions that did not appear in *Challenge for ESO 4* but now do appear in *Switch 4*: dimensions 4 and 8. Likewise, some dimensions are absent in this textbook: dimensions number 5, 9, 11 and 12.

Table 5: Knowledge dimensions in vocabulary activities within *Switch 4*

Vocabulary knowledge dimensions	No activities
1. Know the grammar, pronunciation and orthography of a word	12
2. Know the morphology of a word	17
3. Know the collocability of a word	21
4. Know the syntactic restrictions of a word	10
6. Know the contexts where a word can be used	41
7. Know a word semantic and syntactic relations with other words	58
8. Recognise the word in its written and oral form	26
10. Know the conceptual and referential meaning of a word	45
13. Recognise the word in its visual form	26
14. Translation knowledge of a word	2

As table 5 shows, the most frequent lexical dimensions within this textbook are, as in *Challenge for ESO 4*, dimensions number 7, 10 and 6. This coincidence suggests that vocabulary designers give more importance to the development of vocabulary skills related to dimensions, related to semantic and syntactic relations, conceptual and referential meaning and context than to morphology, the grammar of words, listening skills, etc. On the contrary, little attention is given to dimension 5 (know the frequency in oral and written language of a word), dimension 9 (recover the word when it is needed), dimension 11 (know the meanings that the word connotes) and dimension 12 (Know the pragmatic sense of a word).

3.3. Comparison of the two textbooks

In this section we will focus on the similarities and differences that exist between the two textbooks in terms of the knowledge dimensions involved in their vocabulary activities. Table 6 below shows the differences and similarities between the two textbooks. The first column includes vocabulary knowledge dimensions out of Jiménez Catalan's (2002) taxonomy plus the two included in this study (dimensions 13 and 14). The second and third columns display the distribution of vocabulary activities per textbook.

Table 6: Vocabulary knowledge dimension in *Challenge for ESO 4* and *Switch 4*

Vocabulary knowledge dimensions	No of activities in <i>Challenge for ESO 4</i>	No of activities in <i>Switch 4</i>
1. Know the grammar, pronunciation and orthography of a word	2	12
2. Know the morphology of a word	4	17
3. Know the collocability of a word	8	21
4. Know the syntactic restrictions of a word	-	10
5. Know the frequency in oral and written language of a word	-	-

6. Know the contexts where a word can be used	30	41
7. Know a word semantic and syntactic relations with other words	45	58
8. Recognise the word in its written and oral form	-	26
9. Recover the word when it is needed	-	-
10. Know the conceptual and referential meaning of a word	28	45
11. Know the meanings that the word connotes	-	-
12. Know the pragmatic sense of a word	-	-
13. Recognise the word in its visual form	10	26
14. Translation knowledge of a word	1	2

The most frequent dimensions coincide in *Challenge for ESO 4* and *Switch 4*: dimensions number 7 (Know a word semantic and syntactic relations with other words), 10 (Know the conceptual and referential meaning of a word) and 6 (Know the contexts where a word can be used). However, there are more differences than similarities between the two textbooks. The first difference is related to the quantity of vocabulary activities. Whereas *Challenge for ESO 4* contains 85 vocabulary activities, *Switch 4* comprises a total of 157 vocabulary activities. Consequently, the representation of vocabulary knowledge dimensions in the activities is bigger in *Switch 4* than in *Challenge for ESO 4*. As said earlier, this is down to the fact that the number of activities of *Switch 4* is much numerous than in *Challenge for ESO 4*. The second difference is that the range of dimensions represented in *Switch 4* is wider than in *Challenge for ESO 4*. *Switch 4* vocabulary activities involve the dimensions covered by *Challenge for ESO 4* and two more lexical dimensions: dimensions 4 (Know the syntactic restrictions of a word) and 8 (Recognise the word in its written and oral form). Finally, further differences are observed: Whereas *Challenge for ESO 4* gives no importance to the recognition of words in their written or oral form, *Switch 4* contains listening activities where the learner has to recognise words in their oral form. These differences suggest that vocabulary learning plays a more important role in *Switch 4* than in *Challenge for ESO 4*, as it has been demonstrated by the higher number of activities devoted to vocabulary and the wider range of vocabulary knowledge dimensions represented in the textbook. However, we should take into account the existing similarity as the most frequent dimension in both textbooks has to do with the syntactic and the semantic relations. From this stance, the distribution of knowledge dimensions in the vocabulary activities in the textbooks examined is rather poor and heterogeneous.

4. Conclusions

The present study set out to identify the vocabulary activities and vocabulary knowledge dimensions in two textbooks currently used in 4th year ESO, end of educational stage. Our analysis showed a high degree of similarity between both books regarding the representation of vocabulary knowledge dimensions. Basically they were the semantic and syntactic relations between words (Dimension 7), the conceptual and referential meaning of words (Dimension 10) and the context where words can be used (Dimension 6). Nevertheless,

differences could also be observed between *Challenge for ESO 4* and *Switch 4* in the number of vocabulary activities and in the range of dimensions. Although both textbooks are used at the same course level (4th year ESO), the close analysis of their vocabulary activities reveals differences. This finding has educational implications and requires further research.

In this preliminary study we have focused on the analysis of two textbooks used in the same year of secondary school. However, in order to have a round picture of the representation of vocabulary activities and dimensions the analysis should be expanded to more books from the same course. Similarly it would be convenient to expand the analysis to textbooks in lower and upper courses in order to see whether there is a gradation and an increase of vocabulary activities and dimensions. Furthermore, it would be also interesting to relate the vocabulary input in activities within textbooks to the vocabulary retrieved by students in a lexical availability task. This would provide us with information concerning the relation between vocabulary input, learners' available lexicons and vocabulary uptake.

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