

Universidad Autónoma de Madrid

Facultad de Filosofía y Letras

Departamento de Filología Inglesa



TESIS DOCTORAL

# The implications of narrow reading for second language vocabulary acquisition

Dirigida por

Dra. Karina Vidal Fondo

Presentada por

Idoia Gambra Bernardo

Para la obtención del Título de Doctora en Filosofía y Lingüística

Madrid, junio de 2017

## AGRADECIMIENTOS

En primer lugar, me gustaría agradecer a mi directora de tesis, Karina, su apoyo incondicional durante este largo camino. Ha sido una fuente de inspiración en los momentos más difíciles y siempre me ha ayudado tanto académica como personalmente. Gracias por su entrega y dedicación y por no dejar de confiar en mí.

En segundo lugar, gracias a Beatriz por haberme dejado realizar la tesis con sus alumnos y por involucrarse para que todo saliera bien. También quisiera agradecer a los estudiantes que participaron en el experimento sus ganas de hacer algo diferente a lo que están acostumbrados en las clases de inglés. Quizá les pareció un método muy pesado y monótono, pero espero que le hayan sacado el lado positivo y que hayan podido aprender vocabulario nuevo.

Finalmente, me gustaría agradecer a mi familia y amigos sus constantes palabras de ánimo. Han sido un pilar fundamental para que no me rindiera y luchara por cumplir uno de mis sueños. En especial, quiero acordarme de mi abuela, recientemente fallecida, quien estaría muy orgullosa de mí.

## Resumen

*Esta tesis es un estudio empírico que analiza la efectividad del ‘narrow reading’ – leer textos sobre el mismo tema, escritos por el mismo autor o que pertenecen al mismo género – para la adquisición de vocabulario de una segunda lengua en el contexto universitario. Las preguntas que he pretendido responder están relacionadas con la utilidad de este tipo de lectura para el aprendizaje de nuevo vocabulario y cómo las siguientes variables: categoría gramatical, longitud, frecuencia, número de exposiciones, si la palabra es deducible por el contexto y tipo de palabra, afectan el nivel de dificultad en cuanto a la adquisición del vocabulario. Por otra parte, también es objeto de análisis la relación de la competencia lingüística en segunda lengua de los alumnos y sus habilidades de comprensión lectora con el aprendizaje de vocabulario a través del ‘narrow reading’. Finalmente, también he analizado hasta qué punto los alumnos con un mayor conocimiento general de vocabulario receptivo y productivo adquieren más vocabulario que aquellos cuyo nivel es menor. Este estudio fue llevado a cabo con alumnos universitarios que cursaron 3º de Turismo en la Universidad Autónoma de Madrid durante el año académico 2015-2016. Recogí los datos mediante diferentes tests, lecturas y cuestionarios y analicé estos datos tanto descriptiva como estadísticamente. Los resultados obtenidos muestran que la mayoría de las palabras seleccionadas para el experimento fueron adquiridas, en mayor o menor medida, y que gran parte de ellas tendieron a ser aprendidas de forma receptiva. Las variables que mejor explicaron estas ganancias, tanto*

*receptiva como productivamente, fueron la categoría gramatical y el tipo de palabra. Finalmente, las opiniones de los alumnos sobre el 'narrow reading' parecieron ser positivas o parcialmente positivas en relación a su efectividad para el aprendizaje del vocabulario de una segunda lengua y la mejora de las habilidades de comprensión lectora. El lado negativo de este tipo de lectura parece estar relacionado con el hecho de que leer textos sobre el mismo tema puede resultar poco motivante e interesante para estudiantes que están acostumbrados a leer textos cortos sobre distintos temas. Además, el contexto no siempre ofrece información útil para inferir el significado de las palabras no conocidas por el lector. La relevancia de este estudio reside precisamente en los resultados obtenidos, que parecen sugerir que, al menos en este contexto específico, el uso del 'narrow reading' puede ser beneficioso para el aprendizaje de vocabulario. Estas conclusiones pueden ser de gran relevancia para aquellos programas implantados en universidades españolas y europeas en los que se utiliza el inglés como medio de instrucción. Asimismo, señalan la necesidad de ayudar a los estudiantes universitarios cuyas asignaturas son impartidas a través del inglés a ser conscientes de la importancia de este tipo de aprendizaje para el aumento y el fortalecimiento del vocabulario en su segunda lengua.*

### *Abstract*

*This thesis is a research study that focuses on analyzing the effectiveness of narrow reading on second language vocabulary acquisition in the university context. My research questions are related to the usefulness of this type of reading for the learning of new vocabulary and how variables such as grammatical category, length, frequency, number of exposures, deducibility from context and type of word affect the level of difficulty concerning vocabulary acquisition. In addition, I also analyze the relationship between students' L2 proficiency and their reading comprehension skills and vocabulary learning through narrow reading. Finally, I intend to find out to what extent students with higher general receptive and productive vocabulary knowledge acquire more vocabulary than those with lower levels. This study was conducted with 3<sup>rd</sup> year Tourism students at Universidad Autónoma de Madrid during the 2015-2016 academic year. I gathered the data by means of different tests, readings and questionnaires and I applied some descriptive and statistical analysis. The results obtained show that most of the target words were acquired to a greater or lesser extent and the majority tended to be learnt in a receptive way. The variables that best explained these gains, both receptively and productively, were grammatical category and type of word. Finally, the students' feelings about narrow reading seemed to be positive or partially positive in relation to its effectiveness for second language vocabulary learning and the improvement of their reading skills, even though reading texts about the same topic might be considered not very*

*appealing or motivating for L2 learners who are used to reading short texts on varied topics. Besides, context does not always provide useful information for inferring the meaning of the unknown words. The relevance of this study may lie precisely in the results I got, which suggest that, at least in this particular context, the use of narrow reading might be beneficial for vocabulary learning. These findings might be of considerable importance for EMI – English as a Medium of Instruction – university programmes in Spain and Europe. They point to the need to help university students who receive instruction through the medium of English to become aware of the importance of this type of learning for their L2 vocabulary enhancement.*

## Table of contents

1. GENERAL INTRODUCTION.....	1
1.1. Motivation for the present thesis .....	1
1.2. Outline .....	4
2. INTRODUCTION.....	6
3. REVIEW OF THE LITERATURE .....	8
3.1. The teaching and learning of vocabulary in EFL settings.....	8
3.1.1. Research on vocabulary learning: an overview.....	8
3.1.2. Knowing a word.....	13
3.1.3. The acquisition process .....	17
3.1.4. Receptive and productive vocabulary knowledge.....	20
3.1.5. Memory and vocabulary acquisition .....	24
3.1.6. Intralexical factors that affect the learning of words .....	31
3.1.7. Incidental and intentional learning of vocabulary.....	37
3.1.8. Approaches and techniques used for presenting vocabulary .....	42
3.1.9. Vocabulary selection: the role of teachers and students.....	47
3.1.10. Criteria for items selection .....	48
3.1.11. How many items to teach .....	56
3.1.12. Grouping the lexical items.....	58
3.1.13. Planning the vocabulary component of a language course .....	59
3.1.14. Research on vocabulary testing.....	63
3.2. Learning vocabulary from context .....	67
3.3. Narrow reading.....	78
3.3.1. The concept of narrow reading.....	78
3.3.2. Narrow reading studies .....	83
4. THE STUDY.....	93
4.1. Description of the study.....	93
4.2. Research questions.....	93

4.3. Method .....	94
4.3.1. Subjects .....	94
4.3.2. Materials.....	95
4.3.3. Procedure .....	106
4.3.4. Measurements .....	108
5. ANALYSIS.....	111
6. RESULTS.....	113
6.1. Gains per word.....	113
6.2. Gains per student.....	120
6.3. Pretest-Posttest .....	122
6.4. Pretest-Proficiency.....	124
6.5. Posttest-Proficiency.....	126
6.6. Variables explaining receptive gains .....	128
6.7. Variables explaining productive gains.....	138
6.8. Reading comprehension-Proficiency .....	147
6.9. Reading comprehension-Posttest.....	150
6.10. Receptive vocabulary test-Gains .....	152
6.11. Productive vocabulary test-Posttest .....	156
6.12. Receptive vocabulary test-Proficiency.....	160
6.13. Receptive vocabulary test-Pretest .....	162
6.14. Questionnaire .....	164
7. DISCUSSION AND CONCLUSIONS .....	172
Effectiveness of narrow reading for L2 vocabulary learning .....	172
Gains per word.....	173
Gains per student .....	177
Students' proficiency and vocabulary learning through narrow reading .....	178
Variables explaining receptive gains .....	179
Variables explaining productive gains.....	182



Students' reading comprehension skills and proficiency.....	184
Students' reading comprehension skills and vocabulary learning through narrow reading.....	185
Students' general receptive vocabulary knowledge (as measured by the Vocabulary Size Test) and vocabulary learning through narrow reading.....	186
Students' general productive vocabulary knowledge (as measured by the Vocabulary Levels Test) and vocabulary learning through narrow reading.....	187
General receptive vocabulary knowledge (as measured by the Vocabulary Size Test) and proficiency .....	187
General receptive vocabulary knowledge (as measured by the Vocabulary Size Test) and previous knowledge of the target words .....	188
Questionnaire .....	188
Question 1: I have improved my reading skills after reading these 15 texts. ....	189
Question 2: I prefer reading texts about the same topic rather than read unrelated texts.....	189
Question 3: I find reading texts on the same topic, like Agritourism, helpful for vocabulary acquisition.....	191
Question 4: Any further comments .....	192
8. DISCUSIÓN DE LOS RESULTADOS Y CONCLUSIONES.....	194
Efectividad del 'narrow reading' para el aprendizaje del vocabulario de una segunda lengua.....	194
Ganancias por palabra .....	195
Ganancias por alumno .....	200
La competencia lingüística de los alumnos y el aprendizaje de vocabulario a través del 'narrow reading'.....	202
Variables que explican las ganancias receptivas .....	202
Variables que explican las ganancias productivas.....	206
La comprensión lectora de los alumnos y su competencia lingüística.....	208

La comprensión lectora de los alumnos y el aprendizaje de vocabulario a través del ‘narrow reading’ .....	209
El conocimiento de vocabulario receptivo general de los alumnos (medido mediante el Vocabulary Size Test) y el aprendizaje de vocabulario a través del ‘narrow reading’ .....	210
El conocimiento de vocabulario productivo general de los alumnos (medido mediante el Vocabulary Levels Test) y el aprendizaje de vocabulario a través del ‘narrow reading’ .....	211
El conocimiento de vocabulario receptivo general de los alumnos (medido mediante el Vocabulary Size Test) y su competencia lingüística .....	212
El conocimiento de vocabulario receptivo general de los alumnos (medido mediante el Vocabulary Size Test) y el conocimiento previo de las palabras del estudio .....	212
Cuestionario.....	213
Pregunta 1: He mejorado mi comprensión lectora después de leer estos 15 textos.....	213
Pregunta 2: Prefiero leer textos sobre el mismo tema a leer textos que no están relacionados temáticamente.....	214
Pregunta 3: Leer textos sobre el mismo tema, como el Agriturismo, me parece útil para la adquisición de vocabulario.....	215
Pregunta 4: Comentarios adicionales .....	217
9. IMPLICATIONS .....	219
10. LIMITATIONS .....	223
11. REFERENCES .....	226
12. APPENDICES .....	235
A. Vocabulary Levels Test .....	235
B. Vocabulary Size Test .....	238
C. Pre-test.....	245
D. Post-test.....	257
E. Questionnaire .....	269

F. Readings .....	270
G. Words and number of texts in which they appear .....	325
H. Distribution of words along the texts according to their grammatical category .....	327
I. Total number of exposures of the target words .....	330
J. Classification of words according to their grammatical category .....	332
K. Classification of words according to their length .....	333
L. Classification of words according to their type .....	334
M. Classification of words according to the number of exposures .....	335
N. Classification of words according to deducibility from context .....	336

## List of tables

Table 1: Knowing a word.....	14
Table 2: Vocabulary needs analysis .....	54
Table 3: Evolution of vocabulary assessment.....	64
Table 4: Texts length.....	98
Table 5: Target words according to their grammatical category.....	100
Table 6: Words and number of texts in which they appear (examples).....	100
Table 7: Distribution of words along the texts according to their grammatical category (examples).....	101
Table 8: Total number of exposures of the target words (examples) .....	102
Table 9: Classification of words according to their length.....	102
Table 10: Classification of words according to deducibility from context .....	103
Table 11: Classification of words according to their type .....	104
Table 12: Procedure.....	107
Table 13: Reliability for Pretest.....	111
Table 14: Reliability for Posttest.....	112
Table 15: Words scores in the pretest and in the posttest .....	113
Table 16: Gains per word.....	115
Table 17: Receptive and productive gains per word .....	118
Table 18: Gains per student .....	120
Table 19: Pretest-Posttest: Mean and Standard Deviation.....	122
Table 20: Paired Samples Statistics Pretest-Posttest.....	123
Table 21: Paired Samples Test Pretest-Posttest .....	123
Table 22: Pretest-Proficiency: Mean and Standard Deviation .....	124
Table 23: Pretest-Proficiency Correlation.....	125
Table 24: Posttest-Proficiency: Mean and Standard Deviation .....	126

Table 25: Posttest-Proficiency Correlation ..... 127

Table 26: Receptive gains and variables: Model Summary ..... 130

Table 27: Receptive gains and variables: ANOVA ..... 131

Table 28: Receptive gains and variables: Coefficients ..... 132

Table 29: Receptive gains and variables: Correlations and Tolerance ..... 132

Table 30: Receptive gains according to grammatical category ..... 135

Table 31: Receptive gains according to type of word ..... 137

Table 32: Productive gains: Model Summary ..... 139

Table 33: Productive gains: ANOVA ..... 139

Table 34: Productive gains and variables: Coefficients ..... 141

Table 35: Productive gains and variables: Correlations and Tolerance ..... 141

Table 36: Productive gains according to grammatical category ..... 143

Table 37: Productive gains according to type of word ..... 146

Table 38: Reading comprehension-Proficiency: Mean and Standard Deviation  
..... 148

Table 39: Reading comprehension-Proficiency Correlation ..... 149

Table 40: Reading comprehension-Posttest: Mean and Standard Deviation... 150

Table 41: Reading comprehension-Posttest Correlation ..... 151

Table 42: Receptive vocabulary test-Gains: Mean and Standard Deviation .... 152

Table 43: Students' scores in the receptive vocabulary test and gains ..... 153

Table 44: Receptive vocabulary test-Gains Correlation ..... 155

Table 45: Students' scores in the productive vocabulary test and gains ..... 157

Table 46: Productive vocabulary test-Posttest: Mean and Standard Deviation  
..... 158

Table 47: Productive vocabulary test-Posttest Correlation ..... 159

Table 48: Receptive vocabulary test-Proficiency: Mean and Standard Deviation .....	160
Table 49: Receptive vocabulary test-Proficiency Correlation .....	161
Table 50: Receptive vocabulary test-Pretest: Mean and Standard Deviation ..	162
Table 51: Receptive vocabulary test-Pretest Correlation.....	163
Table 52: Students' scores in the questionnaire and gains .....	165
Table 53: Results of question 1 .....	166
Table 54: Results of question 2 .....	167
Table 55: Answers and reasons for question 2.....	168
Table 56: Results of question 3 .....	170

## List of figures

Figure 1: Gains per word .....	117
Figure 2: Gains per student.....	121
Figure 3: Pretest-Posttest .....	124
Figure 4: Pretest-Proficiency.....	126
Figure 5: Posttest-Proficiency.....	128
Figure 6: Transformation Plot for Receptive Gain .....	129
Figure 7: Transformation Plot for grammatical category .....	134
Figure 8: Receptive gains by grammatical category.....	135
Figure 9: Transformation Plot for type of word .....	136
Figure 10: Receptive gains by type of word .....	137
Figure 11: Transformation Plot for grammatical category.....	142
Figure 12: Productive gains by grammatical category .....	144
Figure 13: Transformation Plot for type of word.....	145
Figure 14: Productive gains by type of word .....	146
Figure 15: Reading comprehension-Proficiency.....	150
Figure 16: Reading comprehension-Posttest.....	152
Figure 17: Receptive vocabulary test and gains.....	154
Figure 18: Receptive vocabulary test-Gains .....	156
Figure 19: Productive vocabulary test-Posttest.....	159
Figure 20: Receptive vocabulary test-Proficiency .....	162
Figure 21: Receptive vocabulary test-Pretest.....	164
Figure 22: Results of question 1 .....	166
Figure 23: Results of question 2 .....	168
Figure 24: Results of question 3 .....	170

# 1. GENERAL INTRODUCTION

## 1.1. Motivation for the present thesis

This research investigation was motivated by a specific pedagogic situation. My experience with school and high school students from different learning settings in Madrid seemed to suggest that many learners do not increase their English vocabulary size as expected, since they tend to cover just a few topics in their textbooks and these topics are usually repeated throughout the different academic courses. There appears to exist fixed lexical fields for each grade and learners are not given the chance to widen their vocabulary knowledge with words that are not so common or frequent in English. This anchoring to basic vocabulary topics during Primary and Secondary Education makes students start University with a limited vocabulary in English. As a result, these EFL students are compelled to expand their knowledge of *technical, academic* and certain *low frequency words* if they want to achieve successful communicative competence in English in their field and work in their second language in a near future. Since it is usually supposed that students who are enrolled in English for Specific Purposes courses will eventually need to do further reading in their areas of specialization, it seems necessary for them to acquire this precise vocabulary in order to improve their reading comprehension skills and cover the contents as well as possible. Apparently, this does not seem to



be a problem at first, as in some cases, the short reading texts in textbooks students have to deal with fulfil the objective of revising the most frequent grammatical structures of technical English as well as general vocabulary of basic use in the area, which many of the students already know when they start the lessons. However, the disadvantage of this type of reading is that learners tend to feel that the activity they are carrying out is irrelevant to their needs; they find it very easy to go over these adapted texts because they are already familiar with the vocabulary that appears in them. Hence, difficulty increases when they have to read authentic materials, as in the case of EMI – English as a Medium of Instruction – programmes, as they will probably encounter more unknown words which might hinder their reading comprehension.

Reading is also considered to be a very effective way of increasing vocabulary size, but this process is very slow. It is necessary that students make an effort and feel committed to read a great number of texts so that vocabulary learning takes place. However, university students have a lot of academic work to do and, unless they are told that this type of reading will be part of their assessment, they do not tend to engage in the type of reading which might finally result in vocabulary acquisition.

English as a Medium of Instruction programmes, which have been started to be implemented in degrees like Tourism, Economics or Sociology in different European countries and in which English is used for teaching academic subjects, would seem to offer an alternative

solution to this complex issue. Students that attend these degrees need to cover extensive reading programmes in different subjects. This implies being exposed to recurrent specific vocabulary across the different texts, as well as academic and lower frequency words. This type of reading, which encompasses texts about the same topic, by the same author or belonging to the same genre, is known as *narrow reading*. The present thesis investigates whether narrow reading can effectively and incidentally contribute to the acquisition of second language vocabulary, and if so, which type of words benefit from this type of learning.

## 1.2. Outline

This thesis is organised into ten parts. Part 1 presents a general introduction including the motivation for this study and an outline containing a description of the main parts. Part 2 is an introduction about the area of research within which this study can be framed. Part 3 provides a review of the literature concerning the following aspects. First, the teaching and learning of vocabulary in EFL settings includes research on what knowing a word implies, the acquisition process, receptive and productive vocabulary, memory and vocabulary acquisition, intralexical factors that affect the learning of words, incidental and intentional learning of vocabulary, approaches and techniques used for presenting vocabulary, vocabulary selection: the role of teachers and students, criteria for items selection, how many items to teach, grouping the lexical items, planning the vocabulary component of a language course and research on vocabulary testing. This part also reviews studies related to learning vocabulary from context and, finally, deals with the concept of narrow reading and the studies focusing on this issue. Part 4 describes the research study proper: the research questions and the method (subjects, materials, procedure and measurements). Part 5 defines the analysis I carried out and Part 6 shows the most relevant results of the different analyses. Part 7 and Part 8 include the discussion and conclusions of the results obtained, Part 9 highlights the implications for pedagogy and further research and Part 10 discusses the limitations of this experiment.

Since L2 vocabulary acquisition and L2 reading comprehension are very wide areas, in Part 3 it seems necessary to only include those research findings and theoretical explanations that are significant for the investigation presented in the subsequent parts of the study, that is to say, L2 vocabulary acquisition and narrow reading.

## 2. INTRODUCTION

Vocabulary has not always been given the importance it has nowadays, as it was not until the end of the XX century that it started to be claimed that having a consistent vocabulary is crucial for second language learning to take place successfully (Laufer, 1990). This study aims to contribute to the increasing research in the field by analyzing vocabulary acquisition by means of narrow reading, which implies reading texts about the same topic, written by the same author or belonging to the same genre (Krashen, 2004). In this type of reading, the vocabulary tends to appear rather frequently across the texts, so this high degree of exposures might facilitate acquisition. Several studies on the impact of narrow reading on vocabulary acquisition have shown positive results concerning this issue (Min, 2008; Khamesipour, 2015; Schmitt & Carter, 2000; Sinta, 2012). However, despite the research carried out in these studies, there exists a gap in the research among university students who are enrolled in EMI – English as a Medium of Instruction – programmes in which content is taught through the medium of English. That is to say, in this type of programmes the English language is used to teach academic subjects, such as maths, science or geography, in places where the first language of the majority of the population is not English. This is the case with the participants of this study, who were 3<sup>rd</sup> year Tourism students at Universidad Autónoma de Madrid during the 2015-2016 academic year and who were working, in particular, on the topic of Agritourism. In this sense, the purpose of this paper is to throw light in

this field by researching the effectiveness of narrow reading on second language vocabulary acquisition focusing on different aspects and variables that might have an impact on this process.

### 3. REVIEW OF THE LITERATURE

#### 3.1. The teaching and learning of vocabulary in EFL settings

##### 3.1.1. Research on vocabulary learning: an overview

There has been an important shift in relation to the role that vocabulary plays in second language learning. During most part of the XX century, it was broadly believed that vocabulary was not of paramount importance for successful language learning (Laufer, 1990). However, this view has changed considerably during the last years of the XX century and the beginning of the XXI century, since research are demonstrated that possessing a solid vocabulary is a key factor at every single point of language learning (1990). For instance, Schmitt highlights that “learning vocabulary is an essential part of mastering a second language” and that there should be cooperation among teachers, students, materials writers and researchers so that vocabulary learning takes place successfully (2008, p. 329).

Laufer states that most researchers have studied aspects regarding the management of vocabulary learning: “how to reduce the vocabulary load (Ogden, 1930 as cited in Laufer, 1990, p. 294); how to handle specific difficulties or teach specific learners (Brown, 1974 as cited in Laufer, 1990, p. 294) or what methods of vocabulary teaching have proved successful” (Salt, 1976, as cited in Laufer, 1990, p. 294). In the same vein, Dóczy and Kormos state that it is necessary to investigate aspects like “how well single words are known and how particular words are

learnt over a longer period of time” (2016, p. 1). Laufer also affirms that there is not enough in comparison with other aspects of language learning, which might be explained due to the fact that “vocabulary is not a close, rule governed system, but an open set and, as such, has probably been less attractive as a research topic” (1990, p. 294). Nevertheless, it needs to be clear that vocabulary acquisition does follow certain patterns, as we can infer from the ease or difficulty to learn given words or similar problems in the lexis found across the Interlanguage of diverse learners (1990).

Schmitt discusses three main areas of research concerning vocabulary learning. The first area of research is how words are connected to each other in the mind; some experiments conclude that “there is a great deal of consistency in the associations produced by a group, suggesting that members have similar kinds of mental connections between words” (Galton, 1879-1880; Cattell & Bryant, 1889; Kent & Rosanoff, 1910 as cited in Schmitt, 2000, p. 18). The second research area is L1 acquisition and it is stated that L1 and L2 acquisition share similar characteristics, such as the exposure to the language before production, but differ in some others, for example the different ways of learning the languages (2000). The last one is related to second language acquisition, highlighting an experiment carried out by Ebbinghaus, whose results pointed out “how the amount of practice affected the amount learned, and indicated that a number of shorter practice periods are more effective than one longer period” (Ebbinghaus, 1885 as cited in



Woodworth & Schlosberg, 1955). It is precisely in this area in which my thesis is framed.

Schmitt (2008) overviews the most recent research in different areas of vocabulary learning. One of the main aspects is vocabulary size, claiming that it is important to establish “the percentage of lexical items in written or spoken discourse that a learner must know in order to understand it” (p. 330). Previous research suggests that knowing 95% of the words was enough for comprehension (Laufer, 1989), but this figure has been refuted by other studies. For example, Hu and Nation claimed that this number was closer to 98-99% in written discourse (2000). Nevertheless, this 98% does not seem suitable in the case of spoken discourse, since some other studies imply that comprehension is also possible with lower percentages of known words (2008). An investigation carried out by Bonk established this number in 95% (Bonk, 2000 as cited in Schmitt, 2008, p. 331). Thus, it seems that students must know 2000-3000 word families to comprehend spoken English (if 95% is appropriate) or 6000-7000 word families if we rely on 98%, but there is not enough research on this aspect to get conclusive results (2008).

Concerning reading, it is thought that knowing 3000 word families would be a good starting point for the understanding of authentic texts – with some guidance on behalf of the teachers – and 5000 word families would allow learners to read these materials autonomously (Nation & Meara, 2002). As for written discourse, Nation states that 8000-9000 word families would be necessary for comprehension when adopting the

98% coverage parameter (Nation, 2006 as cited in Schmitt, 2008, p. 331). According to Zimmerman and Schmitt, 5000 word families seem to establish the limit between general and technical vocabulary and 10000 word families would involve a total command of the language in any situation (2005).

These figures undoubtedly suggest that students are required to know “a very large number of lexical items to be able to operate in English” (Schmitt, 2008, p. 332). For this purpose, it seems crucial that students, teachers, materials creators and researchers get involved in the achievement of this goal (2008). In other words, students should be keen on learning vocabulary actively in the long term; teachers are supposed to play the role of the learning guide; researchers are required to provide teachers with consistent knowledge about vocabulary teaching and learning and materials writers must make vocabulary learning easy by offering suitable resources (2008)

Another aspect regarding research on vocabulary learning is the importance of word form, since after internalising the form-meaning relationship, it is a common practice to focus on meaning more than on form, which brings about problems with the word form: difficulties with suffixes, misinterpretations and word with similar forms (Laufer, 1988; (Bensoussan & Laufer, 1984; Grainger & Dijkstra, 1992), respectively. Hence, it appears to be crucial that students also pay attention to form, since as some research proves, this can help acquire other aspects of vocabulary learning (2008).

It is important to mention the role of the L1 in L2 vocabulary learning, which several studies claim to be rather significant because of the following reasons: some of the errors students make can be due to the interference of their mother tongue (Hemchua & Schmitt, 2006), the L1 is also present in the use of bilingual dictionaries (Schmitt, 1997 as cited in Schmitt, 2008, p. 337), students rely on L1 translation for improving their skills (Liao, 2006) and the psychological evidence that the “L1 is active during L2 lexical processing in both beginning and more-advanced learners” (Hall, 2002 as cited in Schmitt, 2008, p. 337). It is suggested that using the L1 can be effective at the initial stages for establishing the form-meaning link, but as students start encountering the lexical items in different contexts, the use of the L1 becomes less relevant (2008).

According to Schmitt, the notion of engagement with vocabulary is crucial for its learning and can be referred as the involvement possibilities that facilitate its learning; in other words, “anything that leads to more exposure, attention, manipulation, or time spent with lexical items adds to their learning” (2008, p. 339). The factors that boost vocabulary learning are the following:

- “increased frequency of exposure
- increased attention focused on the lexical item;
- increased noticing of the lexical item;
- increased intention to learn the lexical item;
- a requirement to learn the lexical item (by teacher, test, syllabus);

- a need to learn/use the lexical item (for task or for a personal goal);
- increased manipulation of the lexical item and its properties;
- increased amount of time spent engaging with the lexical item;
- amount of interaction spent on the lexical item.”

(Schmitt, 2008, p. 339)

### 3.1.2. Knowing a word

The notion of vocabulary knowledge encompasses different concepts that are explained next. On the one hand, breadth of vocabulary refers to “the number of words or lexical units known by the given speaker of a language” (Dóczy & Kormos, 2016). On the other hand, depth of word knowledge refers to how well a speaker knows a word or to the knowledge about the connections among words in the lexical system (2016). A third dimension is known as lexical fluency and is related to “the speed and automaticity of access to lexical items and their depth of word knowledge components” (2016, p. 161).

According to Nation, knowing a word implies more things than just knowing its meaning and form:

- “The meaning(s) of the word
- The written form of the word
- The spoken form of the word
- The grammatical behaviour of the word
- The collocations of the word

- The register of the word
- The associations of the word
- The frequency of the word”

(1990, p.31).

These requirements for words to be known were described better in subsequent publications, as we can see in Table 1.

*Table 1: Knowing a word*

FORM	Spoken	R	What does the word sound like?
		P	How is the word pronounced?
	Written	R	What does the word look like?
		P	How is the word written and spelled?
	Word parts	R	What parts are recognizable in this word?
		P	What word parts are needed to express this meaning?
MEANING	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concepts and referents	R	What is included in the concept?

		P	What items can the concept refer to?
	Associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?
USE	Grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must we use this word?
	Collocations	R	What words or types of words occur with this one?
		P	What words or types of words must we use with this one?
	Constraints on use (register, frequency...)	R	Where, when and how often would we expect to meet this word?
		P	Where, when and how often can we use this word?

(Nation, 2001, p. 27)

All these characteristics of a word form what is known as *word knowledge*, but they are not acquired at the same time, which makes vocabulary acquisition incremental and gradual (Schmitt, 2000). The fact that knowing a word implies knowing so many aspects of this word is essential when dealing with acquisition and instruction, since some of these features such as word form or grammatical characteristics are better acquired intentionally while others which are context-related, like register constraints, are more difficult to be taught by explicit techniques and would possibly be learnt by an immense L2 exposure (this study reveals important findings in this respect). Thus, the ideal approach to vocabulary learning would include these two kinds of techniques (Schmitt, 2008). Moreover, the acquisition of these aspects does not occur at the same time, so one approach can work better at a certain point than the other and vice versa, depending on the feature that has to be internalised (2008). In addition, Schmitt suggests that words will have to be encountered in many diverse contexts so as to develop mastery of the different word knowledge types, and this involves a long-term recursive approach to vocabulary learning (2008). This is what the study conducted in this thesis and reported in 4.1 tries to explore.

In relation to this point, Schmitt makes a reference to Nation's "four-strand approach which gives balanced attention to learning new information about lexical items, and then provides for consolidation and enhancement of that knowledge" (Nation, 2001) (Schmitt, 2008, p. 343). On the one hand, meaning-focus input refers to learning vocabulary in

meaningful contexts through reading and listening (2008). On the other hand, meaning-focus output is related to the idea of getting involved in different conversations and making the effort to communicate with other people (2008). Furthermore, language-focused learning concerns the traditional explicit teaching of vocabulary in which conscious attention is paid to the lexical items (2008). Finally, fluency development is connected to the assumption that “knowledge of lexical items is only of value if they can be recognized or produced in a timely manner that enables real-time language use” (2008, p. 346).

Finally, some circumstances have to occur so that conscious learning can take place. In other words, the learner has to:

- “be aware of learning something
- notice the rule, word, etc., to be learnt
- have an understanding
- have the ability to articulate, use the learnt word, rule, etc.
- have the learnt item in the short-term memory”

(Laufer, 1990, p. 363)

### 3.1.3. The acquisition process

For a word to be remembered successfully, three significant processes must take place: *noticing*, *retrieval* and *generative use* (Nation, 2001). *Noticing* can be defined as “giving attention to an item; learners need to notice the word and be aware of it as a useful language item” (2001, p. 63). Thus, the more attention students pay to a given unknown lexical



item, the greater chance they have to retrieve it in the long-term memory (Dóczy & Kormos, 2016). Noticing implies decontextualization, that is to say, focusing on the item as a part of the language instead of as a part of a message, and it has been proved that words that are negotiated or briefly defined seem to be acquired better (2001). Regarding *retrieval*, it can be receptive and productive; *receptive retrieval* “involves perceiving the form and having to retrieve its meaning when the word is met in listening or reading” (2001, p. 67). On the other hand, *productive retrieval* refers to retrieving the written and spoken form of the word with the aim of producing the meaning of the word in speaking or writing (2001). Thus, the repetition and recycling of the lexical items appear to be crucial for vocabulary learning. Research has shown that repetitions should appear, firstly, between short time intervals and, then, between longer ones (Baddeley, 1999). The last process is known as *creative* or *generative* use and it refers to how words that have appeared previously several times are later met and used with a different meaning, forcing learners to work on its conceptualisation again (2001). As in the case of retrieval, generation can also be receptive – encountering a word with new meanings in listening or reading – or productive – using the new connotations of the words in new situations (2001).

It is said that *individual factors* such as affective, cognitive and personality-related differences might influence students’ vocabulary learning process (Gardner, 1985). Firstly, among the cognitive factors, we can highlight *working memory*, which is supposed to control attention

and “play an important role in assisting L2 learners to notice relevant linguistic input” (Dóczy & Kormos, 2016, p. 143). In addition, it is also in charge of processing the input received and “helps L2 learners in encoding and committing new words, additional meaning senses, and a wide array of lexical information to their long-term memory” while students deal with speaking and writing skills (2016).

Secondly, *motivation* might influence intentional vocabulary learning considerably, as students need to be tenacious and aware of their learning process, as well as make the most of the input they are exposed to (Dóczy & Kormos, 2016). Tseng and Schmitt (2008) proposed a comprehensive model of motivation which consisted of three stages. The initial motivational conditions include determining the learning objectives and the first steps concerning awareness of the necessary efforts to be made, as well as “personal agency beliefs, which express one’s view as to whether one is capable of performing a given learning task” (2016, p. 146). This is related to the idea that what really has a great impact on language learning is students being able to imagine themselves as effective users of the target language, a model whose components are the Ideal L2 Self, the Ought-to L2 Self and the L2 Learning Experience (Csizér & Dörnyei, 2005). The actional stage of motivated vocabulary learning has to do with “engaging in vocabulary learning”, which is related to the ideas of effort and persistence and self-regulation of thoughts, emotions, behaviours and the learning environment (2016). Finally, in the post-actional stage, students analyse

their vocabulary learning processes and achievement of the learning goals, which might be very useful for adapting learning strategies and control mechanisms to their needs, depending on if they feel satisfied or unsatisfied with the results (2016). Concerning my study, the purpose was to find out whether the participants in the context of incidental reading in the course of their content-based study of the language really engaged in vocabulary learning, as I had observed classes before and students did not seem determined to commit new words to memory, which is a common practice in many EFL students in Spain. Therefore, I wanted to see whether the students seemed able to conduct their own vocabulary learning or whether they needed being guided and encouraged so that they could become effective vocabulary learners.

#### 3.1.4. Receptive and productive vocabulary knowledge

'Receptive' vocabulary, also called passive vocabulary, refers to the lexical items that "can only be recognized and comprehended in the context of reading and listening material", whereas 'productive' vocabulary, also called active vocabulary, is understood as those lexical items which students are able to remember and use accurately in speaking and writing (Gairns & Redman, 1986, pp. 64-65). If we relate these two types of vocabulary to the language learning situation, it seems primordial to decide which lexical items should be taught for productive purposes and which others should be learnt for recognition abilities (1986). Again, the teacher and the students are supposed to have certain degree of responsibility in the items choice, since, on the one hand, the teacher's

knowledge about usefulness and complexities of the items is key and, on the other hand, the students position enables them choose which items should be taught for productive purposes (1986). Gairns and Redman claim that “the transition of an item from a student’s receptive vocabulary to his productive one is a gradual process; repeatedly hearing or reading the item over a period of time is often the most common way in which this transition takes place” (1986, p. 65).

Mondria and Wiersma are more precise in the definitions of these concepts and establish the following categories:

- *“Receptive vocabulary learning:* learning the meaning of an L2 word. Prototypically: learning a word from L2 to L1.
- *Productive vocabulary learning:* learning to express a concept by means of an L2 word. Prototypically: learning a word from L1 to L2.
- *Receptive vocabulary knowledge:* knowledge of the meaning of an L2 word. Prototypically: being able to translate a word from L2 to L1.
- *Productive vocabulary knowledge:* being able to express a concept by means of an L2 word. Prototypically: being able to translate a word from L1 to L2.
- *Receptive vocabulary testing:* testing a person’s knowledge of the meaning of an L2 word. Prototypically: requiring a person to translate a word from L2 to L1.

- *Productive vocabulary testing*: testing a person's ability to express a concept by means of an L2 word. Prototypically: requiring a person to translate a word from L1 to L2."

(2004, pp. 86-87)

Nation discusses what involves knowing a word both receptively and productively. In the first case, knowing a word implies:

- "Being able to recognise the word when it is heard
- Being familiar with its written form so that it is recognised when it is met in reading
- Recognising the parts it is made of
- Knowing that it signals a particular meaning
- Knowing what it means in the particular context in which it has just occurred
- Knowing the concept behind the word which will allow understanding in a variety of contexts
- Knowing that there are related words
- Being able to recognise that it has been used correctly in the sentence in which it occurs
- Being able to recognise its collocations
- Being able to use it in the adequate contexts"

(2001, p. 27)

From the productive point of view, knowing a word encompasses:

- “Being able to say it with correct pronunciation including stress
- Being able to write it with correct spelling
- Being able to construct it using the right word parts in their appropriate forms
- Being able to produce it to express the meaning
- Being able to produce it in different contexts to express its range of meanings
- Being able to produce synonyms and opposites
- Being able to use it correctly in an original sentence
- Being able to produce words that commonly occur with it
- Being able to decide to use or not use it to suit the degree of formality of the situation”

(2001, p. 28)

Laufer carried out an investigation which tried to find out the development of passive, controlled active and free active vocabulary knowledge over one year of instruction and, on the other hand, “to examine the relationship among these three types of knowledge at different stages of vocabulary learning” (1998, p. 258). The participants of the study were 48 learners in a school in Israel belonging to two groups (26 and 22). The passive vocabulary size was measured by the Vocabulary Levels Test; the controlled active vocabulary size was measured by the productive version of the Levels Test and the free active vocabulary was assessed by the Lexical Frequency Profile (1998). The results seem to suggest that both the passive vocabulary and the controlled active

vocabulary experienced a great growth in one year, although the passive vocabulary got higher gains. However, students did not make progress regarding the free active vocabulary (1998). In addition, “the passive vocabulary is larger than the controlled active, but the ratio between the two is different in the two groups [...] learners who have a higher passive vocabulary size are also those who have a higher controlled active vocabulary size” (1998, pp. 263-264). As for the free active vocabulary, it did not seem to correlate with the other two types, which implied that those with higher passive and controlled active vocabulary levels did not necessarily use more uncommon vocabulary in free expression (1998). The results of my study, in which I analyzed the acquisition of receptive and productive vocabulary knowledge through narrow reading, seem to be similar to these, since most of the words had greater receptive gains than productive ones.

### 3.1.5. Memory and vocabulary acquisition

During the decade of 1960s, the predominant idea was the existence of two or more kinds of memory, whose greatest exponent was Atkinson and Shiffrin’s modal model (Baddeley, 2007). According to this model, memory can be divided into *short term memory* and *long term memory*, with previous sensory systems through which perceptual processing takes place (2007). In relation to the first type, which is restricted in capacity, it is our ability to hold information over brief periods (up to 30 seconds in duration, seven items as maximum) and needs continuous repetition, as well as no disruptions or distractions at all (Gairns & Redman, 1986).

On the contrary, long term memory is “our capacity for recall of information minutes, weeks and years after the original input and is seemingly inexhaustible and can accommodate any amount of new information” (1986, p. 87). This distinction does not seem to be precise, because information stored in short term memory can sometimes pass to long term memory without very much effort and repetition, which being an essential aspect in short term memory, might work very well in the transfer of information into long term memory (1986). According to Schmitt, the object of vocabulary learning is to transfer the lexical information from the short-term memory, where it resides during the process of manipulating language, to the more permanent long-term memory” (2000, p. 131).

Baddeley discusses some drawbacks in relation to this model. On the one hand, he refers to the assumptions that “merely holding information in the short-term store (STS) was sufficient for it to be transferred to the long-term store (LTS); the longer the information was held, the higher the probability of transfer, and the better the learning” (2007, p. 4). Research showed that what had real influence was not the amount of time, but what operations were made on the pieces of language which were supposed to be acquired, since “long-term learning depended on the depth and richness of encoding and not on the length of time the material was held in the STS” (Craik & Lockhart, 1972 as cited in Baddeley, 2007, p. 4). On the other hand, neuropsychological evidence contradicted this model in the sense that if we take it for granted that the



STS is essential for long-term learning to occur, then patients with a shortfall in this system would experience the same in the LTM, which was not the case (2007). Moreover, “if the system serves as a general purpose working memory, then such patients should be handicapped on many different cognitive tasks” (2007, p. 4).

Baddeley proposed an alternative model focusing on what had been called ‘short-term memory’ by Atkinson and Shiffrin, which implied rejecting the notion of STS as a single unit and claiming the existence of a multimodal system referred to as ‘working memory’, in order to “emphasize the functional role of the proposed system, rather than simply its storage capacity” (2007, p. 6). In other words, the term ‘working memory’ refers to “a limited capacity temporary storage system that underpins complex human thought” and “comprises multiple components” (2007, pp. 6-7). This multicomponent model is formed by three parts: the *central executive*, the *phonological loop* and the *visuospatial sketchpad*, which had limited storage capacity, even though this variable was different in each of the three components (2007).

First of all, the phonological loop is said to be formed by “a phonological store and an articulatory rehearsal mechanism” (Baddeley, 2007, p. 8). Conrad found out that when participants tried to remember sequences of consonants which had been introduced in a visual way, they used to make ‘acoustic’ errors (Conrad, 1964 as cited in Baddeley, 2007 p. 8). Furthermore, Conrad and Hull observed that subjects seemed to recall similar letters less precisely than dissimilar ones and, thus, both

proposed that “STM depended upon an acoustic memory trace, with visually presented items being converted into an acoustic code by subvocalization” (2007, p. 8). Regarding the rehearsal mechanism, Baddeley sustains that the longer the words are, the less possibilities of incorporating them to the immediate memory, being “memory span assumed to be set by two factors – the rate at which the trace fades and the speed at which items can be rehearsed” (2007, p. 9). However, the later assumption that items which were introduced auditorily appeared to go directly to the phonological store, whereas those presented in a visual way needed subvocalization to access this store is in opposition to the similarity effect – “which is assumed to reside within the store” – and the word length effect – which is assumed to reflect the process of transfer and rehearsal” (2007, p. 9). As we can see, the idea of a phonological loop has been the object of debate among language acquisition researchers (2007).

Secondly, the visuospatial sketchpad carries out the same function for visual and spatial information as the phonological loop does for verbal and acoustic input and it has been proved that “it is *possible* to separate visual aspects of the systems, concerned with patterns or objects, from a *spatial* component concerned with location” (Baddeley, 2007, p. 10).

The last component, the central executive, is based on Norman and Shallice model of attentional control of action, which focused on slips of action and the control of behaviour by the frontal lobes, respectively (1986 as cited in Baddeley, 2007, p. 11). They suggested that behaviour

is controlled at two levels: one “is relatively automatic, based on habits and schemas whereby predictable events give rise to appropriate behaviour” and the other “is a mechanism for overriding existing habit patterns that are no longer adequate” (2007, p. 11). Nevertheless, the addition of a fourth part – the *episodic buffer* – was necessary as a result of the central executive being unable to store by itself (2007). This component “was assumed to form an interface between the three working memory subsystems and long-term memory and served as a binding mechanism that allowed perceptual information, information from the subsystems and from long-term memory to be integrated into limited number of episodes” (2007, p. 13).

As the factors that affect storage are concerned, Gairns and Redman point out the following ones. First, *word frequency* implies that those lexical items whose level of frequency is higher tend to be easily recognised and retrieved (1986). Second, *recency of use* means that those lexical items which have been more recently used are more accessible (1986). Finally, another important variable is learning chronology, which refers to the fact that those words that have been learnt first will be at one extreme and those ones which have been learnt last will be at the other (1986). In this light, Mondria and Wit-de Boer (1991) suggest that being able to infer the meaning of a word effectively does not imply that this word is retrieved successfully.

Regarding the issue of why we forget something that is supposed to be stored in our long term memory, we can highlight several theories

that account for this phenomenon. On the one hand, the *decay theory* sustains that “information stored in the memory falls into disuse unless it is activated fairly regularly”, that is why it is of paramount importance to practice and revise what we learn so that the new information does not progressively disappear (Gairns & Redman, 1986, p. 89). On the other hand, the *cue-dependent forgetting theory* claims that information keeps being stored in our memory but it is us that cannot remember it, so the problem is not at the storage level, but at the retrieval one (1986). Apart from these two theories, some other research also points out that “any significant mental activity undertaken before or after periods of learning can also account for poor learning and retention” (1986, p. 89).

Among the practical implications of the theories of memory and the learning process, we find the use of imagery, since one of the most common resources used by teacher to explain meaning are visual images (Gairns & Redman, 1986). The main advantage of using this tool is that “our memory for visual images is extremely reliable” and it seems clear that pictures can affect memory in a positive way and that it is much easier to invoke “a mental image of a concrete item than an abstract one” (1986, p. 92).

In addition, the recycling of previous learnt lexis turns to be vital so that memory problems do not occur and must be carefully designed so that it is not affected by other learning activities (Gairns & Redman, 1986). Russell suggests the following schedule to put into practice the recycling of presented lexis:

- A five-minute review five to ten minutes after the end of a study period.
- A quick review twenty-four hours later.
- A further review one week later.
- Final reviews one month later and then six months later.

(Russell, 1979)

Schmitt sustains that the typical pattern of vocabulary acquisition is a process of learning-forgetting of the items until they are fixed in our memory (Schmitt, 2000). He also alludes to *attrition*, which “occurs even if a word is relatively well known, as when one does not use a second language for a long time or stops a course of language study” (2000, p. 129). In this light, lexical knowledge appears to be more susceptible to attrition than phonology or grammar and receptive and productive knowledge are affected differently by attrition (2000). Receptive knowledge attrites slightly, mainly peripheral words, whereas productive knowledge is more prone to be forgotten, regardless students’ level (2000). This idea seems to support Weltens’s statement that attrition rates are not determined by students’ proficiency level (1989).

However, it is worth saying that we sometimes think that we are facing a case of attrition, but what is really happening is that the words have not been consolidated properly (Vidal, 2012). In this light, Bahrick (1979) suggests that maintenance of knowledge implies an acquisition phase—during which new information has to be learnt and forgotten

several times while students are being exposed to it—and a maintenance phase—during which the finally acquired vocabulary knowledge must be retrieved or used in a regular basis to enhance long-term retention.

### 3.1.6. Intralexical factors that affect the learning of words

According to Laufer, “knowing a word would ideally imply familiarity with all its features as is often the case of an educated native speaker” (1990, p. 295). Nonetheless, in the case of language learners, this knowing might be partial, since they may be familiar with certain properties but not with others, so, in this light, the multiplicity of features that the learner has to acquire makes a word difficult to learn and, probably, partially learnt (1990). Laufer provides a classification of the interlexical factors that affect the learning of words.

#### 3.1.6.1. *Phonological factors*

In relation to this group, we can highlight the new word’s pronounceability and its length. As far as the first one is concerned, it is stated that “the foreign learner will have a better chance to perceive and produce words which follow a familiar phonological pattern and can therefore be easily pronounced” (Laufer, 1990, p. 297). It is worth mentioning that whether a learner finds a word easy or difficult to pronounce will depend on his L1 phonological system, as in the case of cognates, which are easier to learn by students because of their similar pronunciation to their equivalences in their mother tongue (1990). Laufer also claims that if a word is difficult to pronounce because of the

unfamiliarity of its sounds, that will hinder perception and production (1990). As Ellis and Beaton sustain, difficulty takes place when the learner comes across phonological features that are not typical of his mother tongue because of differences in the articulatory features (1993). However, the phonemes and the articulatory features of a given word are not the only cause of the ease or difficulty of that word, since their position in a spoken word also contributes to its pronounceableness (1993). As regards length, it is stated that if the length variable could be studied accurately in isolation, we could say that students find more trouble in learning the longer words than the shorter ones, but, as he affirms, “in a learning situation it is hard to attribute the difficulty of learning a particular word to its length rather than to a variety of factors (1990, p. 298).

Concerning the issue of the words' length, Baddeley, Thomson and Buchanan carried out a series of experiments in order to analyse the relationship between immediate memory span and the number of syllables of the words (1975). The findings seemed to suggest that “memory span is sensitive to word length across a range of verbal materials [...] when the number of syllables and number of phonemes are held constant the word length effect remains” (1975, p. 586).

#### *3.1.6.2. Orthographic factors*

Concerning these variables, it is said that learners will find it easier to learn a language whose alphabet is similar to the one present in his mother tongue and the same happens with how the frames of the script

are organized (from left to right, from right to left, vertically in columns, etc.) (Ellis & Beaton, 1993). In addition, “the learning of the ortography of FL words may be determined by the degree to which the sequential letter probabilities match those of the native language”, as also happens at the word level, where “the degree to which a particular FL word accords with the ortographic patterns of the native language may affect its ease of learning” (1993, pp. 567-568). In relation to graphemes-phonemes, it is worth mentioning that there is not a universal pattern in how this connection functions in all languages, so the student has to learn how the ortography of the target language is reflected in the pronunciation of this language (1993).

#### 3.1.6.3. *Grammatical characteristics of a word*

This set of factors include: *part of speech*, *inflexional complexity* and *derivational complexity*. Concerning the *part of speech*, some researchers assert that, depending on the grammatical category, words will be easier or more difficult to learn; it is said that nouns appear to be the easiest ones, adverbs, the most difficult ones and verbs and adjectives are placed somewhere between both extremes of the cline (Laufer, 1990). However, some research has stated that these results might be due to some other factors different from the category, such as phonological or morphological complexity (1990). In relation to the *inflexional complexity*, “features such as irregularity of plural, gender of inanimate nouns, noun cases, make an item more difficult to learn than an item with no such complexity, since the learning load caused by the multiplicity of forms is greater”



(1990, p. 299). As to the *derivational complexity*, the morphology of a new word can make the recognition of this word much easier and its successive production, since students would be familiar with the morphemes that make up that specific word (1990). Nevertheless, the fact that there do not exist systematic patterns concerning which morphemes can or cannot be used together to form words and the existence of several meanings expressed by the same word might constitute an important factor for learning problems (1990).

#### 3.1.6.4. *Semantic features of the word*

This set of factors, which could be defined as “theoretical constructs which can characterize the vocabulary of a language” include *abstractness*, *specificity* and *idiomaticity* (Leech 1974, p. 96 as cited in Laufer, 1990, p. 300). Thus, a given lexical word can be defined taking into account its distinguishing features that contrast with other features (1990). Related to *abstractness*, some research has been carried out highlighting opposite results concerning the relationship between abstractness and ease in vocabulary learning (1990). Therefore, *concreteness* or *abstractness* in itself does not seem to determine the difficulty of learning a word, but “if all the other features of two words were identical, the concrete one would probably be easier”, although in the real learning situation, other factors measuring difficulty may even obstruct the acquisition of concrete words (1990, p. 300). As to *specificity*, it is claimed that students find it easier to learn the general terms than the more specific ones, which can be explained by alluding to

the learners' confidence in using a general term that can be employed in several different contexts, reducing in this way the risk of making a mistake, since the more specific words can just be used in particular contexts depending on meaning and use (1990). With regard to *idiomaticity*, it seems clear that "idiomatic expressions are much more difficult to understand and learn to use than their non-idiomatic meaning equivalents", even when the L1 and the L2 are "similar in the use of idiom" (1990, p. 301). This higher degree of difficulty is mainly due to the fact that students have to learn more than one word and that they cannot infer the meaning of the idiom by adding up the meaning of every single word that makes it up (1990, p. 301).

Another interesting aspect highlighted by Carter and McCarthy is the importance of linguistic relativity, since a learner will find it easier to learn a new word in the target language as long as the word has only one matching meaning both in the mother tongue and in the L2, whereas he will find it harder when the same conceptual fields are covered by different lexical fields in different languages (1988).

#### 3.1.6.5. *Register restrictions*

Register is defined by Halliday, McIntosh and Stevens as how language varies depending on its use and is formed by three components: tenor, field and mode (1964). Laufer claims that students of a foreign language do not seem to be aware of the fact that words do not fit accurately in all kinds of registers, since their acceptability in use depends on the characteristics of that particular register (1990). Hence, it is stated that

neutral words, which can appear in all kinds of register, are easier to learn than those words that can only be used in a certain register type, since, in order to learn these last words, learners will have to be familiar with extralinguistic information (1990).

#### *3.1.6.6. Multiple meaning*

One of the main problems a student has to face when learning a language is the fact that one lexical item can express different meanings and that the same meaning can be expressed by different lexical items (Laufer, 1990). This last case is what we know by polysemy (“a lexical item with several meanings related to each other”) and homonymy (“separate lexical items with distinct meanings unrelated to each other”) (1990, p. 303). In this light, students might have trouble when coming across with this multiple meaning issue, since they will experience the problem of learning how to distinguish the different meanings of the same lexical item and how to use the lexical item to express its numerous senses (1990).

#### *3.1.6.7. Similarity of FL and native words*

Learners will encounter words that remind them of similar words from their mother tongue and this reminding (orthographical, phonological, etymological or borrowing) tends to make the learner easier to learn the word in the target language (Ellis & Beaton, 1993).

### 3.1.6.8. *Studies concerning how the different characteristics of words affect their learning*

Milton and Daller (2007) investigated how frequency, word length and cognate status affected receptive vocabulary learning, being word frequency the one that influenced the acquisition of the words. The results of a similar study by Willis and Ohashi (2012) suggested that the three variables had an impact on the learning of the words, but whether the words were cognate or not was the most significant (as cited in Dóczy & Kormos, 2016).

In addition, Dunn (2013) investigated the influence of variables such as word frequency in the COCA Corpus, length, imaginability, concreteness and parts of the speech; all of them except concreteness seemed to be relevant for vocabulary learning (as cited in Dóczy & Kormos, 2016). A study by Crossley et al. (2013) complemented Dunn's study and highlighted that context also influences the learning of words; that is to say, if the word appears in the same context, learners will be more likely to acquire it than if it appears in different contexts (as cited in Dóczy & Kormos, 2016).

### 3.1.7. Incidental and intentional learning of vocabulary

Vocabulary can be acquired intentionally and incidentally. When vocabulary is learnt intentionally, attention is paid to the piece of information that is meant to be learned, which increases the possibility of a solid acquisition, but demands a lot of time (Schmitt, 2000). As for

incidental learning, it “can occur when one is using language for communicative purposes, and so gives a double benefit for time expended”, but slows down vocabulary acquisition and makes it gradual because it depends on the frequency of the word (2000, p. 120). In other words, intentional learning conditions concern participants being told that they will be assessed on the material they are working with and are completely conscious that they are taking part in a formal task, whereas incidental learning conditions refer to those in which the subjects do not know that they will have to take a test on the material they are dealing with (Mäntylä, 2001 as cited in Dörnyei, 2009, pp. 140-141). These two ways are not exclusive, since language learners should be taught vocabulary and encouraged to learn vocabulary by combining both approaches (2000). My thesis concerns incidental vocabulary acquisition, as the participants read a series of texts without knowing that they would be tested on the acquisition of given words once they covered all the readings.

As Schmitt states, “vocabulary requires a different approach which incorporates explicit attention to learning the lexical items themselves”, because of several reasons (2008, p. 341). First of all, when students get the general meaning of a text, they do not try to figure out the meaning of all the words and it can occur that inferring meaning from context is not reliable because it does not provide the necessary information or learners do not know the 98% of the words (Laufer, 2005). In addition, words whose meaning can be inferred from context easily might not fulfill

all the engagement conditions to be acquired and retrieved successfully; whereas new words students have encountered in a text need to appear in subsequent pieces of writing so as not to be forgotten, but learners do not normally read the amount that should be suitable for these words to be learnt (Laufer, 2005). According to Schmitt, explicit vocabulary teaching is effective: “although research has demonstrated that valuable learning can accrue from incidental exposure, intentional vocabulary learning (i.e. when the specific goal is to learn vocabulary, usually with an explicit focus) almost always leads to greater and faster gains, with a better chance of retention and of reaching productive levels of mastery” (2008, p. 341).

Focusing on incidental vocabulary learning, even though early studies did not get the expected positive results, mainly because of methodological inconsistencies (Horst, Cobb & Meara, 1998; Raptis, 1997), more recent studies seem to show encouraging results regarding the effectiveness of this type of learning. For instance, Horst found that half of the unknown words met through extensive reading were successfully learnt (2005). Pigada and Schmitt focused on spelling, meaning and grammatical features of the target words using extensive reading as well, finding that there was certain improvement regarding these aspects (2006).

An important factor that should be taken into account when assessing incidental vocabulary learning from reading is the number of exposures necessary for it to take place. There does not appear to be an

agreement in relation to how many exposures would guarantee vocabulary learning. Different studies point to different figures that make target words more likely to be acquired: 6 exposures (Rott, 1999 as cited in Schmitt, 2008, p. 348), 10 or more exposures (Pigada & Schmitt, 2006 as cited in Schmitt, 2008, p. 348), 8 exposures (Waring & Tatakis 2003; Horst, Cobb & Meara, 1998). Although vocabulary learning appears to occur incidentally, as research points out, “the pick-up rate is relatively low, and it seems to be difficult to gain a productive level of mastery from just exposure” (2008, p. 348). Hence, this type of learning might be better used for consolidating words that have already been met before (2008). On the other hand, Webb suggested that students seemed to incidentally build on the receptive and productive knowledge of new words progressively as they encountered these words more and more frequently (as cited in Dóczy & Kormos, 2016).

Several studies have investigated the effectiveness of incidental and explicit vocabulary learning. Ghobadi, Shahriar and Azizi carried out an experiment in order to find out if there were significant differences regarding the effectiveness between incidental vocabulary acquisition and explicit vocabulary teaching, as well as the long-term and short-term effects of these approaches on Iranian intermediate EFL learners' vocabulary knowledge (2016). The number of participants was 53, who were divided into one control group (17) and two experimental groups (18 each) and the number of target words was 24 (2016). The learners belonging to the control group had to learn a novel in English, in which

any of the target words appeared, and they did not receive any kind of teaching (2016). On the other hand, the Incidental Vocabulary Acquisition group (IVA) was exposed to the target words by means of reading comprehension texts which were modified so that they included the target words several times; again, students did not have access to any explicit teaching (2016). Finally, the learners in the Instructed Vocabulary Teaching (IVT) group received explicit instruction of the target words by the teacher using definitions in the students' mother tongue (2016). The immediate post-test and the delayed post-test brought to light interesting findings. First, "the participants in the IVT group obtained the highest mean score on the immediate post-test, with the participants in the IVA group obtaining the second highest mean score on the immediate post-test" (2016, p. 215). As expected, the subjects in the control group got the worst result in the immediate post-test; these differences among groups were found to be significant (2016). As far as the delayed post-test is concerned, the pattern seems to be the same: the best score was obtained by the IVT group, followed by the IVA group and the control group; however, the only significant difference was that between the experimental groups and the control group, as the difference between the IVT and IVA faded away (2016).

Another research study focusing on this was carried out by Al-Darayseh, who investigated "the effect of a combination of explicit and implicit vocabulary strategies on the development of EFL learners' vocabulary and improving their reading comprehension skills" (2014, p.



1110). The participants of the study were 55 university students divided into two groups: 28 students in the control group and 27 in the experimental one (2014). The experimental group was exposed to explicit/implicit vocabulary teaching, by which they were taught the words directly with definitions, synonyms, etc. and then they had to read texts in which they encountered the target words and supposedly developed their word-learning strategies for acquiring them. The control group experienced traditional teaching, that is to say, using translations and memorising the target words (2014). The results of the experiment suggested that there were significant differences concerning the total mean scores, the reading comprehension mean scores and the vocabulary mean scores between the control and the experimental groups, obtaining the experimental group better results than the control group in the total mean scores, the reading comprehension mean scores and the vocabulary mean scores (2014). In addition, it was found that “there was a significant relationship between the experimental group students’ mean scores in reading comprehension and vocabulary” (2014, p. 1113). That is to say, students who learnt more words had better comprehension.

### 3.1.8. Approaches and techniques used for presenting vocabulary

There are two main approaches in the presentation of vocabulary to learners of a second language: teacher-centered and learner-centered, which will be discussed in turn (Gairns & Redman, 1986).

### 3.1.8.1. *Teacher-centered approaches*

Concerning this set of techniques, “they may be used for teaching incidental items or in a ‘vocabulary lesson’; the lexical items are usually selected by the teacher rather than the learner” (Gairns & Redman, 1986, p. 73). These techniques can be divided into different groups.

On the one hand, *visual techniques* include visuals (flashcards, photographs, realia), which are mainly used to convey meaning and are very helpful when it comes to teach specific lexical items (food, furniture) and certain areas of vocabulary (professions, places) (Gairns & Redman, 1986). They allow students to take part in activities in which interaction takes place. Visual techniques also involve mime and gesture, which are also aimed at conveying meaning by reinforcing the lexical item that is being taught through the use of gestures (1986).

On the other hand, *verbal techniques* can be classified as follows. We might use illustrative situations (oral or written) to teach abstract items above all, synonymy and definition to clarify concepts, taking into account the importance of context in words definitions, contrasts and opposites to find out the meaning of a word on the basis of an already known one, scales to revise the items students know and to add some new ones (adverbs of frequency) and examples of the type to exemplify the meaning of superordinates (table, chair and sofa are *furniture*) (Gairns & Redman, 1986).

The last teacher-centred technique involves *translation*, which can be very helpful when conveying meaning, since it is a good way to save time and to deal with lexical items whose frequency is not very high but that are significant for students (Gairns & Redman, 1986). However, despite being a good resource, Gairns & Redman claim that “if students continue to use the mother tongue as a framework on which to attach L2 items, they will not develop the necessary framework to take into account of sense relations between different items in the language” and they will not be exposed to a real second language learning setting, as well as to practice their listening skills (1986, p. 76).

An important aspect that should be taken into consideration is the spacing effect: “for a given amount of study time, spaced presentations yield substantially better learning than do massed presentations”, so it seems better to distribute practice in a longer period of time rather than concentrate it in a short one (Ellis, 1995, p. 16). Several studies have proved this hypothesis concerning vocabulary knowledge claiming that spacing repetitions have a more determining effect than the number of repetitions (Bloom & Shuell, 1981; Reynolds & Glaser, 1964; Bahrick & Phelps 1987; Bahrick, 1993 as cited in Ellis, 1995, p. 17). As Vidal claims, “fast learning does not tend to support long-term retention” (2012, p. 58).

Concerning this, Schuetze studied the difference between short-term gains and long-term retention taking into account two kinds of recycling intervals: uniform and expanded; he carried out two similar

experiments (2014). The results seem to suggest that “in regards to short-term gains, the expanded group obtained higher mean scores – not statistically different – than the uniform group, whereas in the long-term test it was the other way round” (2014, p. 1). Nonetheless, learners might want to choose one spacing interval or another depending on the learning goals they set (2014).

### 3.1.8.2. *Student-centered approaches*

During the last years, teacher-centered practices have given way to more student-centered approaches, in which the learner is assigned a higher degree of responsibility in his learning process and, at the same time, teachers are able to pay more attention to students’ particular needs (Gairns & Redman, 1986). These approaches include techniques such as asking others, using a dictionary and making use of context to deduce meaning and guessing from the item itself (1986).

Concerning the asking others technique, Gairns and Redman sustain that “a student can ask the teacher or another student to explain the meaning of an item which he has just encountered” or can provide the context in which he wants to use an item that he does not know how to express in English (1986, p. 77).

Regarding the using a dictionary tool, it seems helpful when the learner does not have the opportunity to ask the teacher or a classmate for help, being bilingual or dictionaries designed specifically for second language learners very useful (Gairns & Redman, 1986). Among the

advantages of using a dictionary, we find the fact that if a learner uses it appropriately, he will be able to expand his learning process outside the classroom, which will increase his autonomy in relation to the language learning choices he will have to make, as well as constant support and “a quick way of finding information” (1986, p. 79). In addition, dictionaries may also function as explanatory resources when the meaning of a word depends on the context in which it appears (1986).

Finally, the contextual guesswork technique refers to “making use of the context in which the word appears to derive an idea of its meaning, or in some cases, to guess from the word itself” (Gairns & Redman, 1986, p. 83). It is claimed that the ability to find out the meaning of a word from context is an appreciated skill to which time should be devoted in class so that students can practice it, but not at the same time as another skill is being introduced (1986). In addition, students should only be told to guess meaning from context when the context is completely adequate to the task (1986). This is the case of the present study, as I elaborated the materials with the target words I wanted to assess at the end of the experiment and they were presented incidentally by means of different readings. Hence, the participants had to develop their guessing from context skills to find out the meaning of the lexical items.

### 3.1.9. Vocabulary selection: the role of teachers and students

Gairns and Redman sustain that it is a very difficult task for the teacher to choose sets of vocabulary that are of interest for most of his students, since each of them has his own likes and certain specific needs (1986). Thus, the teacher should “accept that students have different needs and allow them more autonomy in lexical decision-making”, although he must also get involved in this selection so that his responsibility as a teacher keeps intact (1986).

In relation to this, it can be claimed that each word in a language has a different level of utility. In this sense, Beck, McKeown and Kucan suggest the notion of tiers in order to classify words according to how much and with which purposes they are used in a language. Tier One includes the most basic words, which do not normally need to be taught at schools; Tier Two encompasses “*high frequency words* for mature language users and, thus, instruction in these words can add productively to an individual’s language ability (2005, p. 210). Finally, Tier Three words are those which are not used so frequently and are often restricted to specific fields, so they tend to be learnt when they are needed in a content area (2005).

Thus, several aspects should be taken into account when students and teachers want to select words for instruction.

- How generally useful the word is
- If students are likely to meet the word in other texts

- If the word will be of use to students in describing their own experiences
- How the word relates to other words, to ideas that students know or have been learning
- If the word relates directly to some topic of study in the classroom
- If the word might add a dimension to ideas that have been developed
- What the word brings to a text or situation
- What role the word plays in communicating the meaning of the context in which it is used

(Beck, McKeown & Kucan, 2005)

This issue is discussed in detail in the following section.

#### 3.1.10. Criteria for items selection

In order to choose useful items to teach, several aspects should be taken into consideration.

##### *3.1.10.1. Frequency and range*

Since the mid 20<sup>th</sup> century, several lists containing different number of words and their frequency have been developed, such as the *General Service List of English Words* (1953) (2,000 most commonly used words in English), the *General Service List* (1953) (6,000 entries and 2,000 headwords), the *Kucera and Francis List* (1967) (2,000-5,000 words), the *Threshold Level* (1,500 words) or the *Cambridge English Lexicon* (4,500

words, 8,000 semantic values) (Gairns & Redman, 1986). Some other frequency lists can be found at Lextutor: *GSL 1000 Families (39k)*; *GSL 1000 Heads (9k)*; *GSL 2000 Families (36k)*; *GSL 2000 Heads (7k)*, *AWL Heads (5k)*, *AWL Families (37k)*, *AWL Families Sublists (37k)*, *Paul Meara's Plausible Non-Words*, *James Dickins' Freq-By-Sense GSL*, *British National Corpus Lists*, *Martinez' BNC-5k Phrase Lists*, *JACET8000*, *Longman LDOCE Defining Vocab*, *Longman "Communication 3000"*, *Brown Corpus List*, *Ogden's 'Basic English'*, the *COCA Corpus of American English* and *Lists based on British National Corpus from U. Lancaster and from Paul Nation* (Compleat Lexical Tutor, 2016).

Zimmerman and Schmitt sustain that the best criteria for vocabulary selection is the notion of frequency, since “more frequent words are more useful than less frequent words”, and the teaching of these words appears to be essential in the sense that they tend to occur in a variety of situations and allow learners to operate in a wide range of language contexts (2005, p. 2). However, as Gairns and Redman point out, “the contents of frequency counts should not be accepted uncritically or used dogmatically to dictate lexical grading”, since, for example, there might be an item with low frequency that is highly frequent in given situations or contexts in which a specific word may substitute other lexical items (1986, p. 58).

Nation divides vocabulary into four main blocks concerning its frequency and its range to properly select which words learners need to acquire (2008). The first level is *high frequency words*, which are of



paramount importance for vocabulary learning due to the fact that they appear regularly in all kinds of language contexts (2008). Among the characteristics of these words, we can highlight the following ones: they consist of 2000 word families, most of them are short, “169 of the 2000 word families are function words”, whereas the rest are content words, and all of them are “very common words that we need every day that we use English” (2008, p. 7-8). Furthermore, it is said that in written texts at least 80% of the words belong to the most 2000 frequent words; and in friendly conversation, this percentage goes up to over 90% (2008). Some examples of the 2000 most frequent words are *break, bird, capable, confidence, connect* or *danger*.

The second group of words are known as *academic words*, which Nation defines as “a vocabulary that consists of words that are not from the most frequent 1000 or 2000 words but that are frequent and widely used within a specialized area”, being academic writing the area in which more research has been carried out (2008, p. 8). As Nation points out, *academic words* “make up around 8.5%-10% of the running words in academic texts”, but they do not appear with that frequency in other language uses – less than 2% in conversation (2008). Taking this into account, *academic words* seem crucial for those cases in which English is used for academic purposes (2008). Examples of these words are *process, financial, design, licence, migration, dynamic* or *schedule*.

The third level concerns *technical words*, which are “words with more special purposes that are very common in one particular area, such

as the vocabulary of Physics” (Nation, 2008, p. 9). It is suggested that most *technical words* only belong to one specific area, but some of them can also appear in other areas, either with the same or with a different meaning (2008). Hence, *technical words* are of paramount importance for people specialising in a particular area, as it is believed that “at least 20% of the running words in most technical texts are likely to be *technical words*” (2008, p. 10). Examples of *technical words* are *command*, *output*, *prosecution*, *caution*, *fiberglass* or *harrow*.

Finally, the last group of words are known as *low frequency words*. English has over 10000 word families of *low frequency words*, which include “words that are not quite frequent or wide range enough to be *high frequency words*”, “*technical words* from other areas” and “words that just occur rarely” (Nation, 2008, p. 11). As Nation claims, in friendly conversation, around 5% of the words are low frequency ones; this figure increases up to 10% in the case of newspapers and *academic words* (2008). Some examples of this type of word are *igneous*, *vinculum*, *isotope*, *gloaming*, *rogue* or *harelip*.

However, Schmitt N. and Schmitt D. countered what Nation suggested concerning the boundaries among frequency levels following pedagogical criteria by stating that *high frequency words* included 3000 word families, instead of the 2000 word families claimed by Nation, as “it appears that 3000 word families represent an important milestone in language development” (2014, p. 492). Moreover, they also propose that *low frequency words* should belong to the 9000 level, not to the 10000

level as Nation suggested, which would be beneficial to learners, since they would not have to know those extra 1000 word families (2014). Taking this into consideration, there is a gap between the 3000 and the 9000 word families, which Schmitt N. and Schmitt D. call mid-frequency vocabulary and which implies positive effects on students' language learning, for example "the ability to engage with English for authentic purposes, such as watching movies" (2014, p. 495). Other benefits include reading novels, newspapers and magazines for pleasure, reading university academic texts in English (2014). In addition, it is highlighted that as mid frequency words are acquired, learners seem to obtain better results in reading tests and use their vocabulary more fluently (2014). In the study I conducted in this thesis, I follow Nation's classification of words according to their frequency, as shall be explained in the description of the study.

#### *3.1.10.2. Cultural factors*

Cultural factors can be defined as "those aspects of culture that members of cultural groups have acquired, consciously or unconsciously, and carry with them wherever they go" (Perkins, 2009, p. 1). In this light, when the cultural factors of the learners are in contact with the L2 culture, a kind of class between the two cultures might take place, which will probably affect the learning conditions by not making students identify themselves with the English culture, involving a lack of motivation and some kind of frustration (2009). Hence, it seems crucial that teachers "create a culturally responsive learning environment that

supports the success and achievement of all the students” (2009, p. 1). Examples of cultural factors are the notion of time, gender, the *self* concept, the communication style, the learning styles and the conception of formality (2009).

Due to the fact that most of the items gathered in the word-counts are selected from native speakers’ language, they will be subject to these speakers’ cultural interests and concerns, leaving aside L1 interests when they want to express opinions and experiences quite different from the ones by the native speakers, such as vocabulary connected to specific cultural traditions, *tapas* and *flamenco* in the case of Spanish speakers, for instance (Gairns & Redman, 1986).

#### 3.1.10.3. *Need and level*

Gairns and Redman claim that students will have different lexical needs depending on their motivation for learning English and that depending on the level, the selection of lexis will be more or less restricted (1986). Nation establishes a vocabulary needs analysis which can be seen in Table 2:

Table 2: Vocabulary needs analysis

TYPE OF NEED	NEEDS ANALYSIS TOOL
<p>Lacks</p> <ul style="list-style-type: none"> <li>• What vocabulary do they know?</li> <li>• What strategies can they use?</li> </ul>	<ul style="list-style-type: none"> <li>• Vocabulary knowledge: a vocabulary size test</li> <li>• Vocabulary use: Lexical Frequency Profile, levels dictation</li> <li>• Strategy knowledge: knowledge test</li> <li>• Strategy use: observation of performance</li> </ul>
<p>Necessities</p> <ul style="list-style-type: none"> <li>• What vocabulary do they need?</li> <li>• What strategies do they need?</li> </ul>	<ul style="list-style-type: none"> <li>• Interview or questionnaire to determine language use goals</li> <li>• Refer to studies of vocabulary size and coverage</li> </ul>
<p>Wants</p> <ul style="list-style-type: none"> <li>• What vocabulary do they want to learn?</li> </ul>	<ul style="list-style-type: none"> <li>• Use class discussion, an interview or questionnaire to determine areas of interest</li> </ul>

(Nation, 2001, p. 382)

Thus, a comprehensive needs analysis should take into account the following aspects:

- “an indication of which type of vocabulary – high-frequency, academic, technical and low-frequency – needs to be focused on.

- an indication of how much of this type of vocabulary needs to be learned.
- an indication of which strategies need attention.
- an indication of any specialised areas of vocabulary that need attention.
- knowledge of learners' present areas of strength in vocabulary knowledge and use, and their control of strategies.”

(Nation, 2001, p. 383)

Motivation goes hand in hand with these needs and level in the sense that “if the student does not perceive the vocabulary input to be useful, it will be difficult to engage his interest and so effective learning of everything else will also be reduced” (Gairns, & Redman, 1986, p. 60). Therefore, several aspects should be taken into consideration when selecting tasks that promote effective vocabulary learning: using activities that take full advantage of learner engagement with the lexical items to be learnt, maximizing recurrent exposures to target words and “considering which aspects of the lexical knowledge to focus upon” (Schmitt, 2008, p. 343).

#### *3.1.10.4. Expediency*

There is specific vocabulary that should be familiar to students in order to understand their teacher, their classmates or the activity they will carry out, as in the case of grammatical and phonological terminology, the vocabulary present in the regulative register and the vocabulary

needed to ask questions or to ask for more information (Gairns & Redman, 1986). There are also other situations in which expedient vocabulary takes places, such as “when the classroom activity demands it”, when irrelevant vocabulary at first turns to be relevant as the activity moves on, when the students wants to know the meaning of a word and when “the course book dictates it” (1986, pp. 63-64).

This is usually known as classroom language and it can be beneficial for using English in real communication contexts, getting students involved in the lesson and helping them improve their learning skills (Louwerse, 2001). In this sense, learners can use classroom language for expressing themselves, asking their doubts, making decisions and requests, interacting with their classmates in a group exercise, etc. (2001).

#### 3.1.11. How many items to teach

When it comes to deciding which words to teach, we must also take into consideration “how many words to teach in conjunction with any given text or lesson [...] there needs to be some basis for limiting the number of words so that students will have the opportunity to learn some words well” (Beck, McKeown & Kucan, 2005, p. 211). Gairns and Redman state that, for a lesson that lasts for 60 minutes, a feasible average of productive words that can be taught is between eight and twelve, being the lower number more appropriate for lower levels and the second number for higher levels (1986). On the other hand, “if this rate of input were then sustained for the duration of the course we can calculate that

low level students would achieve a productive vocabulary of approximately 1,000 items over 125 hours of study”, which might not be realistic enough, since students might experience degrees of forgetting or memory failures (1986, p. 66). It also depends on the hours available for learning, learners’ motivation and other circumstances. The uptake per teaching hour is a useful metric: 3-4 words per hour (Milton & Meara, 1998), 1-2 words per hour (Laufer, 2010).

There are some factors that need to be taken into consideration when expecting students to acquire the desired number of items; some of them are external and some others are within the teacher’s control (Gairns & Redman, 1986). Regarding the first ones, we have to take into account “how similar in form the target item is to an equivalent in the learner’s own language”, the teachability of the items, that is to say, “how easy it is to illustrate the meaning”, what the students’ level, learning setting and context are, “what language aptitude the learners have”, and what the syllabus forces the teacher to cover (1986, pp. 67-68). We can also find the learners’ likely familiarity with the words (they might have seen the words before, but not acquired their meaning) and whether the lexical items are meant to be learnt receptively or productively, as the second case is more demanding (Ludescher, 2017). In relation to the factors related to teacher, we, as teachers, should bear in mind what else we need to deal with within the timetable and how much exposure we will give to the lexical item (1986).



### 3.1.12. Grouping the lexical items

Gairns and Redman suggest “presenting items to a student in a systematized manner which will both illustrate the organized nature of vocabulary and at the same time enable him to internalize the items in a coherent way” (1986, p. 69). The most common way to present vocabulary is by means of semantic fields, which are sets of words that share common semantic features and which function both at general levels and at more specific ones (1986, p. 69). Gairns and Redman propose different groupings of lexical items formed by semantic, phonological and grammatical sets that can be followed for the teaching of vocabulary depending on students’ level (1986).

- “Items related by topic, which is a usual practice found in textbooks: types of fruit, articles of clothing. This is the technique that will be used for introducing the target vocabulary in this research study: words related to Agritourism.
- Items grouped as an activity or process (topic-related): starting a car, buying a house.
- Items which are similar in meaning: limp, tiptoe, amble.
- Items which form ‘pairs’, which can be synonyms, contrasts and opposite words: old/new, buy/sell.
- Items along a scale or a cline, which illustrate differences of degrees: a child/a teenager/an adult.
- Items within ‘word families’: biology-biologist-biological.

- Items grouped by (a) grammatical similarity and (b) notional similarity: He's likely to, It's bound to.
- Items which connect discourse: 'to begin with', 'in the second place'.
- Items forming a set of idioms or multi-word verbs: to ring up, to call up.
- Items grouped by spelling difficulty or phonological difficulty: menu, vegetable, recipe.
- Items grouped by style: cigarette-ciggy, toilet-loo.
- An item explored in terms of its different meanings: sentence.
- Items causing particular difficulty within one nationality group, such as words containing the sound /f/ for Japanese students.”  
(Gairns & Redman, 1986, pp. 69-71)

### 3.1.13. Planning the vocabulary component of a language course

According to Nation, the most important of the teacher's tasks is planning, which “involves gathering information through various means, interpreting this information, and then applying it. Finally, it involves reflecting on the planning and working out if the planning has been effective and how it could be improved” (2008, p. 157).

The first step is finding the learner's present level and their needs in order to know whether they should work on high frequency vocabulary, academic vocabulary, technical vocabulary or low frequency vocabulary

(Nation, 2008). Secondly, teachers are supposed to find what language use will be made by the learners, whether they will need to focus on academic or *technical words* and, once this point has been established, it is also important to decide which skills – reading, writing, listening, speaking – learners will have to practice (2008). Thirdly, it is crucial to know what and how much vocabulary students should learn, which depends on how long the course is and how much time we can devote to this aspect of language learning (2008). Then, it is vital to divide the learning time similarly between the four strands approach proposed by Nation, as follows:

- “Set up a substantial extensive reading program and use the listening to stories activity on a regular basis.
- Provide opportunities for receptive vocabulary to become productive in speaking and writing.
- Train learners in deliberate learning using word cards and word parts.
- Do intensive reading on a regular basis.
- Give fluency practice across the four skills by regularly doing Speed reading, 4/3/2, ten-minute writing and using English for classroom management.”

(Nation, 2008, p. 160)

One of the last stages in vocabulary planning is to decide how to check students’ development of vocabulary learning throughout the

course, for which it seems of paramount importance to choose tests that fulfill the conditions of reliability, validity and practicality (Nation, 2008). Finally, it is essential to establish how vocabulary will be assessed during the course, for which Nation suggests a set of teaching principles:

- “Make sure vocabulary development occurs across the four strands.
- Have clear vocabulary learning goals based on information about learner’s present vocabulary knowledge and their future use of English.
- Spend time on *high frequency words*.
- Spend time on the strategies for high and *low frequency words*.
- Take strategy learning seriously. Plan for it and give each strategy repeated attention until learners can use it well.
- Make sure words get increasingly spaced repeated attention.
- Encourage thoughtful processing of vocabulary, at least retrieval and preferably generative use.
- Avoid interference.
- Monitor learner’s present knowledge and progress through the course.
- Encourage learners to take responsibility for their own learning and make sure that they understand the principles and can apply them.”

(Nation, P., 2008, p. 161)

Apart from these principles concerning teachers' role, useful information can also be gathered from students by means of regular tests, surveys or self-assessment worksheets or from “environmental analysis, needs analysis, the application of principles, goal setting, selection and sequencing of items to be learned, the format of the lessons and the activities used in the lessons, monitoring and assessment, and finally course evaluation” (Nation, 2008, p. 162).

Finally, it is worth discussing the notion of autonomous vocabulary learning, which encompasses the ideas of *attitude* – “the need for the learner to want to take control and responsibility for learning”–, awareness – “the need for the learner to be conscious of what approaches are being taken, to reflect on their effects and to consider other approaches”– and capability – the need for the learners to possess the skills and knowledge to be autonomous in a particular area of study”– (Nation, 2001, pp. 394-395). In order to promote autonomous learning, the following principles are suggested:

- “Principle 1: learners should know what vocabulary to learn, what to learn about it, how to learn it, how to put it to use and how to see how well it has been learned and used.
- Principle 2: learners should continue to increase their vocabulary size and enrich the words they already know.
- Principle 3: learners should use word frequency and personal need to determine what vocabulary should be learned.

- Principle 4: learners should be aware of what is involved in knowing a word and should be able to find that information about particular words.
- Principle 5: learners should be familiar with the generalizable language systems that lie behind vocabulary use.
- Principle 6: learners should know how to make the most effective use of direct, decontextualized learning procedures.
- Principle 7: vocabulary learning needs to operate across the four strands of meaning-focused input, language-focused learning, meaning-focused output and fluency development.
- Principle 8: learners should be aware of, and excited by, their progress in vocabulary learning.”

(2001, pp. 395-403)

#### 3.1.14. Research on vocabulary testing

Schmitt claims that attention is always paid to testing vocabulary in any L2 learning situation mainly because of two main reasons: the teacher's desire to know about his students' improvement and the students' need to know how well they are doing and how their learning progress is moving on (2000). Ebbinghaus proposed a self-assessment way of measuring vocabulary, which may lead to people miscalculate the vocabulary they really know (2000). He tried to learn an imitation language and “he tested himself by means of a *paired-associates* procedure [...] he looked at the nonword and if he could give the English

equivalent, he considered it learnt” (2000, p. 17). Thus, it seemed reasonable to create objective assessing materials, as in the case of Starch’s psychometric tests, which “measured vocabulary by having testees match a list of foreign words to their English translations” (2000, p. 19). These objective tests were the norm during 1930s, but in 1964, the TOEFL (Test of English as a Foreign Language) was created (2000). This trend was affected by the birth of the communicative approach to the teaching and learning of languages, since this method advocates for testing vocabulary in context rather than in isolation (2000).

The evolution of vocabulary assessment can be seen in Table 3:

*Table 3: Evolution of vocabulary assessment*

TIME PERIOD	SAMPLE ITEM
1915-1920 Decontextualized vocabulary assessment	Pick the word that fits in the blank: A _____ is used to eat with.  saw  spoon  pin  car
1970s Early efforts to contextualize vocabulary	Pick the best meaning for the italicized word:  The farmer discovered a tunnel under the barn.  built  found  searched  handled

<p>1980s</p> <p>Steps toward contextualization</p>	<p>In a (1) democratic society, we presume that individuals are innocent until and unless proven guilty. (2) Establishing guilt is (3) daunting. The major question is whether the prosecution can overcome the presumption of (4) reasonable doubt about whether the suspect committed the alleged crime.</p> <p>For each item, select the choice closest in meaning to the italicized word corresponding to the number:</p> <p>2. <i>establishing</i></p> <p>a. <i>attributing</i></p> <p>b. <i>monitoring</i></p> <p>c. <i>creating</i></p> <p>d. <i>absolving</i></p> <p>3. <i>daunting</i></p> <p>a. <i>exciting</i></p> <p>b. <i>challenging</i></p> <p>c. <i>intentional</i></p> <p>d. <i>delightful</i></p>
<p>1995</p> <p>Embedded vocabulary assessment</p>	<p>Among a set of comprehension items, you might find the following:</p> <p>In line 2, it says, "Because he was responsible for early morning chores on the farm, John was often tardy for school."</p> <p>The word <i>tardy</i> is closest in meaning to</p> <p>a. <i>early</i></p> <p>b. <i>loud</i></p> <p>c. <i>ready</i></p> <p>d. <i>late</i></p>



<p>Late 1990s</p> <p>Computerized format</p>	<p>Baseball has been a favorite American pastime for over 120 years. Each year, fans flock to diamonds all over the country to pursue this passionate hobby.</p> <p>Look at the word hobby in the passage. Click on the word in the text that has the same meaning.</p>
--	---

(Pearson, Hiebert, & Kamil, 2007, p. 285)

Nation claims that testing vocabulary is as important as assessing other language areas, so “the same criteria of reliability, validity, practicality and washback need to be considered when designing and evaluating vocabulary tests” (2001, p. 344). Due to the great amount of tests possibilities, the ideal vocabulary test should have a considerable number of items (30 minimum), it should allow students to use the vocabulary we want to assess, it must not demand much effort concerning its preparation, marking and interpretation and it must have a positive influence on the teaching and learning of vocabulary (2001).

There are different controversial aspects concerning vocabulary testing. First, it appears that students saying whether they know the words or not is not enough, as they do not demonstrate clearly that they know the meaning of those words (Nation, 2001). Second, concerning giving options in the tests, “there seems to be no major disadvantage in using multiple-choice except perhaps in the amount of work required to make the items” (2001, p. 350). Third, as far as using translations is

concerned, it is suggested that they are very beneficial for testing vocabulary both receptively and productively and in recall and recognition, since even though it can occur that some words do not have an equivalence in the L1, these problems are less than the difficulties learners could face when there is no match between L2 definitions and their meaning they want to reveal (2001, p. 351). Lastly, as to words being tested in context, Nation suggests that context plays an essential role in making students focus on the correct part of speech and inspiring adequate access to the words' meaning (2001).

In my thesis, both the pretest and the posttest followed the same format: a modified vocabulary knowledge scale from Wesche and Paribakht, (1997, as cited in Read, p. 133). This test was used to check students' previous knowledge of the target words and to assess if they had acquired the 30 target words selected for the experiment. If they provided the translation into Spanish, they got 1 point and if they used the English word in a sentence, they got 2 points.

### 3.2. Learning vocabulary from context

Among all the strategies for vocabulary learning, this study focuses on deducing meaning from narrow reading contexts, in which texts are written by the same author, are about the same topic or belong to the same genre. I will turn to this issue again in the next section. Nagy claims that the importance of context when learning vocabulary is due mainly to two factors. On the one hand, "what a word means often depends on

the context in which it is used” (1995, p. 2). On the other hand, people acquire most of their vocabulary by means of context (1995). Nation also makes reference to the importance of this strategy, as it is the most useful because “it can be applied to thousands of words, can be done incidentally while reading and listening, and can account for most of the vocabulary growth of a learner” (2008, p. 74). It is stated that students do not acquire vocabulary just by being exposed to it, but by being able to use inferring strategies in order to guess the meaning of the words, which makes individual differences a key factor in working with contexts (Ellis, 1995).

It is worth mentioning the fact that, as Baddeley suggests, visually presented material – the texts students had to read in this thesis – needs to be verbally recorded by means of subvocal articulation so that it can access the phonological store (2007). Hence, during reading, phonological recording via subvocal articulation is used to identify unfamiliar letter strings. However, this process may be partial and, therefore, unsuccessful (2007). In relation to this, it is necessary to discuss the concept of *mental lexicon*, which is a person’s mental representation of word meanings and covers different aspects, such as *word-concept* (meaning, properties and relationship to other concepts), *visual-word percept* (perceptual representation of written word), *auditory word-percept/speech code* (pronunciation of the word), syntactic information (part of speech, syntactic roles) and *pointers to knowledge of the world*

(Just & Carpenter, 1987). There are several lexicons for different channels of input/output.

- To understand speech: auditory input lexicon (sound patterns)
- To read: the visual input lexicon (orthographic patterns)
- To say the word: speech output lexicon tune a motor programme for its pronunciation
- To write: spelling output lexicon (specification for orthographic sequence)

In the case of reading, two processes take place so that printed symbols on a page are linked to a mental concept. First, encoding implies that the printed letter string is recognised by the visual strategy (Just & Carpenter, 1987). Second, concerning the lexical access, seeing the written form of a word leads to access to meaning and, by means of phonological recoding, the reader uses knowledge about correspondences between letters and sounds to generate a phonological specification that matches phonology of a familiar word (1987). The participants of this thesis carried out silent reading, so the recognition of the words was probably mediated by the visual strategy, but they “produced” an inner voice while reading. The more the students read, the greater accumulation of encounters with words, and, consequently, the better storage of visual forms (sight vocabulary) (1987). Successful storage, despite the many encounters, depends, as mentioned above, on the successful subvocal articulation.

The role context plays for vocabulary learning is analysed from two perspectives: the number of words acquired and “the amount and quality of knowledge about individual words” (Nagy, 1995, p. 9). Concerning the first one, Nagy emphasises three aspects to be taken into account: “the total amount of vocabulary growth in a given period of time”, how much of this growth can be due to explicit vocabulary teaching and how much to inferring meaning from context (1995, p. 10). Nagy states that in the case of second language learning, context seems to work better than explicit teaching of words in vocabulary acquisition, as students face a higher rate of unknown words (1995). As regards the second perspective, he claims that for a word to be acquired, it has to be encountered by the learner several times in context by means of “large amounts of comprehensible input” (1995, p. 11).

According to Nagy, there are three different kinds of knowledge necessary for making inferences based on context (1995). The first one is *linguistic knowledge*, which is related to “the linguistic structure of the context” and encompasses syntactic knowledge, vocabulary knowledge and word schemas (1995, p. 12). *World knowledge* also plays a key role when deducing meaning from context in the sense that “learners' prior knowledge has a more powerful effect on learning from context than do properties of words or texts not directly related to prior knowledge” (1995, p. 14). In addition, second-language learners who are adults might have considerable world knowledge which does not apply in the case of young first-language learners (1995). The last type of knowledge is known as

*strategic knowledge*, which “involves conscious control over cognitive resources” (1995). In other words, students know when they find a word whose meaning is not familiar to them and try to guess its meaning intentionally (1995).

Prince highlights three conditions so that learning from context can take place. The first one concerns the learner being able to process the sentence with the aim of gaining as much understanding as possible (1996). The second condition implies using that understanding in order to guess the meaning of the word whose meaning is not known (1996). The last one is related to “associating the meaning with the form of the unknown word in such a way that a representation is formed that is available for future use” (1996, p. 481). This complex procedure makes learning from context more demanding than learning using L1 translations (1996).

Nation points out other conditions for this technique to be effective. First, learners must be good at reading and guessing skills; second, the 98% of the words in the texts they have to read should be familiar to them; third, what needs to be taken into account are the actual words that are not known by the learner: fourth, positive feedback must be given to guesses that are not fully accurate, but get close to their meaning, as this is a cumulative process; fifth, it is essential to bear in mind the difference between inferring from natural contexts and conscious learning using modified texts; and finally, they must get involved with a lot of input of this kind (2001, 2008).

In addition, Sternberg discusses three processes in learning from context: *selective encoding* (being able to discriminate between relevant and irrelevant information with the aim of stating a definition for the word), *selective combination* (associating appropriate cues for formulating a suitable definition) and *selective comparison* (“relating new information to old information already stored in memory”) (as cited in Ellis, 1995, pp. 11-12). There are some variables that make it easier or harder to guess the meaning of words from context:

- “The number of occurrences of the unknown word
- The variability of contexts in which multiple occurrences of the unknown word appear
- The importance of the unknown word to understanding the context in which it is embedded
- The helpfulness of the surrounding context in understanding the meaning of the unknown word
- The density of unknown words”

(Ellis, 1995, p. 11).

As far as how much vocabulary is learned from context, according to Nation, several things can occur to a lexical item:

- “It is guessed correctly to some degree and at least partially learned. This may happen for 5% to 10% of the words.

- It is guessed correctly to some degree but nothing about it is learned. This probably happens to many words.
- It is guessed incorrectly.
- It is ignored, possibly because it is not important for the wanted message in the text.”

(2001, p. 237)

Nation discusses different sources of information learners should take advantage of when guessing meanings from context:

- “the clues that are in the clause or sentence in which an unknown word occurs
- the clues that are in the immediately surrounding sentences or clauses
- the information that has been built up so far from all the previous parts of the text
- knowledge of the nature of such texts
- background content information from outside the text
- the reader’s commonsense knowledge of the world
- the morphological form of the unknown word”

(Nation, 2008, pp.74-75)

On his behalf, Haastруп distinguishes three categories: *interlingual* (cues based on L1, loan words in L1 or knowledge of other languages);



*intralingual* (cues based on knowledge of English) and *contextual* (cues based on the text or informants' knowledge of the world) (1989).

The most comprehensive classification of clues for meaning guessing was done by Ames and includes words in series, modifying phrases, familiar expressions, cause and effect, association, referral clues, synonym clues, definition or description, preposition, question and answer, comparison or contrast, main idea and detail and non-restrictive clauses (1966 as cited in Nation, 2001, p. 244).

Apart from these context clues, Jenkins and Dixon discuss 'mediating variables' that intermediate between the learners and the content of the texts, making it easier or more difficult to infer meanings from context (1983). These variables encompass: number of occurrences, proximity of recurrence, variability of contexts, presence of relevant clues, proximity of relevant clues, number of relevant clues, explicitness of relevant clues, density of unknown words, importance of the unknown word to understanding the text, prior knowledge of the topic, familiarity of the concept, familiarity of the referents, concrete vs. abstract referents, amount of polysemy (1983).

Concerning learners differences in inferring meaning from context, we can highlight that "in general, a good guesser uses a variety of clues, checks various types of clue against each other, does not let the form of the word play too large a part and does not arrive at a guess prematurely; proficiency in L2 is a major factor in successful guessing" (Nation, 2001, p. 247).

There are two kinds of guessing-from-context procedures: inductive and deductive. Concerning the first one, “it is strongly based on language clues and does not draw on background content knowledge” (Nation, 2001, p. 257). It is formed by five steps:

- “Step 1. Decide on the part of speech of the unknown word.
- Step 2. Look at the immediate context of the word, simplifying it grammatically if necessary.
- Step 3. Look at the wider context of the word.
- Step 4. Guess.
- Step 5. Check the guess.”

(Clarke & Nation, 1980 as cited in Nation, 2001, p. 257)

Regarding the deductive procedure, which gives guessing an essential role and encourages intuition development, it encompasses the following steps (2001):

- Step 1. Guess the meaning of the word.
- Step 2. Justify the guess using a variety of clues.
- Step 3. Readjust the guess if necessary.

Azin, Biriya and Sardabi studied whether inferring meaning from context has any effect on vocabulary retention, being the participants 67 Iranian university learners divided into a control group and an experimental one (2015). The number of target words was 48, which were taught to the control group by means of explanations, definitions and synonyms/antonyms, whereas in the experimental group, learners had

to infer the meaning of these words from the context (2015). The results pointed out that “the students who inferred the meaning of new words from context did much better on the final test than the control group who learned the vocabulary through the conventional method” (2015, p. 1283).

Another study focusing on this issue is the one carried out by Nassaji, who aimed at finding out the degree of success concerning students’ ability to infer meanings from context, “what strategies and knowledge sources they use to do so and to what extent” and if there exists a relationship between these strategies and sources and their performance in lexical inferencing (2003, p. 649). The participants of the study were 21 adult ESL learners registered in an intermediate English programme in Canada and the techniques used for collecting data are both introspective – a think-aloud procedure for registering the guessing the meaning of unknown words from the reading passage – and retrospective – gathering students’ additional comments (2003). The results suggest that more than half of the times, students were not able to find out the meaning of the unknown words from context successfully; they could only guess the meaning of one out of four words (2003). Furthermore, it also seems that “the higher the proportion of unknown words in the surrounding context, the lower the likelihood of success” (2003, p. 653). Another worth mentioning finding implies that the way words are written and their similarity to unrelated words can potentially hinder meaning guessing from context (2003). As far as the knowledge

sources for inferencing meanings are concerned, students tended to use world knowledge in most cases, followed by morphological knowledge, grammatical knowledge, discourse knowledge and L2 knowledge, being morphological knowledge and world knowledge the ones that meant more successful inferences (2003). Regarding the strategies, learners used repeating most of the times, followed by analogy, verifying, monitoring, self-inquiry and analyzing; verifying, self-inquiry and repeating are the ones that guaranteed a better performance in guessing meaning from context (2003). Finally, as none of the strategies or knowledge sources implied 100% of success, it appears that the combination of different ones may promote successful meaning inferences (2003). I shall return to these issues in the light of the analysis of the data in this study.

Quian, on the other hand, studied which of the techniques students used for guessing unknown words were more common while dealing with texts written in English and “whether the top-down approach to reading comprehension was indeed a critical factor influencing lexical inferencing strategies” (2004, p. 157). The subjects of the experiment were 61 English learners whose mother tongues were either Korean or Chinese and who were in Canada enrolled in English courses at two universities and the total number of target words was 7 (2004). The data gathered suggested that guessing meaning from context was the most frequently used approach to unknown words, followed by looking up the words in a bilingual dictionary, looking them up in a monolingual dictionary and making a note about them (2004). In

addition, it is also pointed out that “the participants in the study believed that their lexical inferencing strategies were mainly top-down”, being *global meaning* and *world knowledge* the most common (2004, pp. 163-164). Nevertheless, in real practice, these two strategies do not seem to be used that often, being replaced by *syntagmatic cues* and *morphological cues* (2004).

### 3.3. Narrow reading

#### 3.3.1. The concept of narrow reading

Krashen suggests that the general assumption that being exposed to a wide variety of topics, genres and styles has a positive impact on students' learning might be mistaken, since it seems that second language acquisition would be better guaranteed if learners have the chance to encounter narrow input, which can be found in texts by the same author, of the same topic or belonging to the same genre (2004). This notion of narrow reading, coined by Krashen, involves the idea that “the acquisition of both structure and vocabulary comes from many exposures in a comprehensive context, that is, we acquire new structures and words when we understand messages, many messages, that they encode” (2004, p. 17).

According to Krashen, narrow reading makes second language acquisition easier because of the following factors. Firstly, due to the fact that each writer has a unique style which encompasses fixed expressions and grammatical structures and each topic contains its own sets of

vocabulary, narrow reading offers the possibility of finding the same words and expressions across different contexts (2004).

Secondly, previous knowledge about the topic turns to be crucial when it comes to understanding a given text. Similarly, having good background knowledge is also an indicator of a higher degree of acquisition, since readers will find the text more comprehensible (Krashen, 2004). In other words, “the more one reads in one area, the more one learns about that area, and the easier one finds subsequent reading in the area (and the more one acquires of the language)” (2004, p. 17).

Krashen disagrees with the belief that narrow reading only focuses on one area. He claims that getting involved in a specific topic enables the reader to be exposed to an important variety of vocabulary expressions and syntactic constructions that are used in other kinds of texts (2004). In addition, learners do not normally read about just one topic, but they have other interests along their life that make them expand their reading habits progressively (2004). One of the main advantages of narrow reading lies in its motivational nature, as learners reading about topics of interest will find themselves “reading for the message, for meaning, in early stages of language acquisition” (2004, p. 18).

Krashen makes some suggestions concerning how to use narrow reading in second language acquisition. On the one hand, he states that students should read fun, easy and interesting texts, so that they get

ready for more difficult texts (2004). On the other hand, he claims that the best way to make the transition to more demanding texts is by reading fields that are closely connected to each other (2004). Finally, he also says that narrow reading is a process that can be enjoyed at any time and in any place (2004).

Gardner carried out a research study with the purpose of investigating the narrow reading claim that texts about the same topic, belonging to the same genre or written by the same author provide readers with more repeated exposures to the same words than materials which are not topic or author related (2008). The number of texts was 56 (48 thematic and 8 control) organised into 14 collections (12 thematic and 2 control) and they followed different variables: about the same topic or different topics, expository or narrative and about the same author or different authors (2008). His findings reveal some interesting points. First, it seems “themes have their greatest impact on specialized vocabulary recycling among authentic informational (expository) materials, with little or no impact among authentic fictional (narrative) materials” (2008, p. 108). Second, texts about the same theme recycle specialized vocabulary in a more efficient way among authentic expository materials than themes that are not related, but it is not the case in authentic narrative collections (2008). In addition, Gardner claims that the words appearing in the expository texts were better thematically distinguished than in the narrative ones (2008). Furthermore, it appears that “authentic children’s narratives written by

the same author have substantially more specialized vocabulary recycling than narratives written by several different authors, but authorship has no observable impact on specialized vocabulary recycling among authentic children's expository materials" (2008, p. 108). Finally, it seems that themes have a key role for expository collections, and single authorship for narrative collections. On the other hand, the impact of topics and authorship on vocabulary recycling has to do both with what vocabulary and what register, as it does not seem to be clear that texts on the same topic or written by the same author guarantee high exposure to theme-based words (2008).

Narrow reading can be framed within the EMI – English as a Medium of Instruction – context, whose definition is the following: “the use of the English language to teach academic subjects, such as maths, science or geography, in countries or jurisdictions where the first language (L1) of the majority of the population is not English” (Dearden, 2014, p. 4). This definition is important because it makes a distinction between the concepts of EMI and content and language integrated learning (CLIL): “whereas CLIL is contextually situated (with its origins in the European ideal of plurilingual competence for EU citizens), EMI has no specific contextual origin” (2014, p. 4). Besides, EMI overtly states that the language of instruction is English, with all the geopolitical and sociocultural consequences that this might involve (2014). Whereas CLIL has the strong aim of promoting both content and language as its own name suggests, for EMI that goal is not necessarily essential (2014). This



teaching approach is gradually being used in universities, secondary schools and even primary schools and could be said to have crucial implications for the education of the youngest (2014). As the participants of my study are university students, it seems interesting to highlight the increasing trend of higher education institutions whose aim is to propose courses in which the language of instruction is English or bilingual models that combine both English and the L1; according to the last surveys, 60% of post-graduate courses in Europe are being imparted through EMI (Macaro, 2014).

Macaro, Walter, Dearden and Zhao tried to “map the size, shape and future trends of EMI worldwide” by “asking British Council staff in 60 countries to act as ‘informed respondents’ for the countries in which they were resident” (2014, p. 2). They had to fill in open-ended questionnaires on the present state of EMI in their countries (55 in total), reaching the following conclusions:

- The general trend seems to point to a quick development of EMI provision.
- The government might want to support EMI but with certain limitations.
- Although public opinion does not appear to be in favour of EMI, especially in the secondary phase, there is a point of controversy more than rejection concerning its implementation or continued development.

- The negative side of EMI seems to lie on the fact that it may cause social discrimination, as people with lower socio-economic background might not have access to it, as well as a feeling that the mother tongue or the national identity will be undervalued.

(2014)

This thesis focuses on narrow reading and vocabulary learning as developed within the frame of EMI, as English is used to teach the subject of Tourism and, more specifically, the subtopic of Agritourism in a context where the L1 is Spanish.

### 3.3.2. Narrow reading studies

There have been several research studies concerning the acquisition of vocabulary by means of narrow reading. An example of this is the investigation carried out by Hansen and Collins, which intended to find out “whether narrow independent reading was related to ELL<sup>1</sup> and non-ELL children’s growth in reading comprehension and vocabulary knowledge, taking into consideration children’s access to books and the volume and quality of their independent reading English Language Learners” (2015, p. 140). The participants of the study were 220 fourth grade children from five schools located in the same district in southern California and they were told to read as many books as possible: some groups were engaged in narrow reading while other groups had to do random reading. The gathered data pointed out some interesting results.

---

<sup>1</sup> English Language Learners

Firstly, all the children seemed to have adequate access to books, regardless of the level of poverty of the school, at least referring to quantity (2015). Moreover, due to the fact that in all the schools there were both ELL and non-ELL children, “access to books in the school libraries was not dependent upon language status” (2015, p. 148). These findings also seem to claim that ELL children did not encounter as many words as non-ELLs, as they did not read as many words as native speakers, and that English-speaking children had a better comprehension than children who did not have such a good command of English (2015). It is also suggested that all the children – those exposed to narrow reading and to random reading – experienced growth concerning all measures from fall to spring, so independent reading seems to be a potential tool that can be used to improve literacy skills among ELL children (2015). Finally, another interesting point is that “while narrow reading was not related to children’s growth in expressive vocabulary, word reading, decoding, and comprehension, the proportion of narrow books read was related to children’s growth in receptive vocabulary” (2015, p. 150).

Another interesting study combines narrow reading and listening and analyses their effectiveness regarding language learning in different ways. The participants of this research were 49 1st-year, low-intermediate students at a Japanese university and worked with the topic of peace education (Kimura & Ssali, 2009). For the narrow listening part, students watched the film: Hotel Rwanda and in the case of narrow

reading, they read originally written fragments/passages. The instruction was complemented with listening tasks and comprehension questions (2009). The findings seem to point out that the combination of narrow reading and listening “promoted language development by helping vocabulary learning and cultivating background knowledge” (2009, p. 12). That is to say, words tended to appear frequently across familiar contexts, which helped students’ comprehension and language acquisition (2009).

Another study focusing on narrow reading and vocabulary acquisition that is worth mentioning is the one carried out by Min, who wanted to analyse the effectiveness of two different approaches: reading plus activities which focus on specific vocabulary (RV) and narrow reading (NR) on vocabulary learning among English as a foreign language secondary school students (2008). The participants of the experiment were 50 male Chinese speakers of English as a foreign language at a senior high school in Taiwan and the reading materials were four authentic articles on two topics: computer culture and the future of medicine (2008). These readings were complemented by vocabulary activities focusing on the target words in the case of one group and reading extra texts about the same topic in the case of the control group (2008). The results of the investigation suggest that both types of instruction had a positive influence on students’ lexical knowledge of the target words; students belonging to the reading and vocabulary enhancement approach obtained better results than the ones receiving

narrow reading instruction regarding receptive and productive lexical knowledge on acquisition and retention tests, even though “an overall trend of word loss was evident between the acquisition and retention tests for both groups” (2008, p. 94).

Khamesipour carried out a study to find out if there existed a difference between explicit (giving the definitions of the words before reading the texts) and implicit (through narrow reading) teaching of vocabulary regarding students’ acquisition of vocabulary (2015). The subjects of this research were 30 EFL students enrolled in Applied-Sciences courses in a university in Iran. They had to do some previous tests and then they completed the experiment — explicit instruction through word definitions and implicit instruction through narrow reading texts — . The findings seem to suggest that “the learner’s knowledge of vocabulary before any instruction was statistically almost equal” (2015, p. 1623). In addition, both the explicit and the implicit teaching of vocabulary appeared to have a positive effect on vocabulary learning; however, there existed a significant difference between these two methods, as students got better scores when they were taught vocabulary implicitly — narrow reading — than when explicit teaching was used — presenting definitions — (2015).

Schmitt and Carter studied the lexical advantages of narrow reading for second language learners by using corpus analysis. They analysed two sets of newspaper stories; each of them was composed of 9 stories: “a series of reports on a running story (Princess Diana’s death)

and a collection of unrelated stories (wide range of topics) (2000). The findings seemed to suggest that in the case of narrow reading, there is a greater number of different high frequency content words, the total number of their occurrences is greater and there are fewer types, which results in a reduction of the vocabulary load (2000). As far as students' opinion about narrow reading is concerned, they stated that this approach is useful for vocabulary acquisition and reading skills (2000). Finally, Schmitt and Carter give some advice as to when to include narrow reading within the syllabus content. They claim that newspapers, magazines, books etc. are a very good source of texts, that students' interests should be taken into account and that the focus should be on all the linguistic aspects at the same time (2000).

Sinta carried out a case study in which she wanted to analyse if the vocabulary learning strategy of using narrow reading improves students' vocabulary acquisition (2012). The participants of the investigation were two students from a Reading Across Genres course and the materials were 12 articles from the newspaper The Jakarta Post about the case of Antasari Azhar, so the topic belonged to the field of law (2012). The students only had to read the articles; there were not any other activities related to the target words. The results suggest that students improved their vocabulary after being exposed to narrow reading, since they acquired many words that they did not know before the treatment (2012).

Abdollahi and Taghi also studied whether narrow reading has positive effect on L2 learners' vocabulary recall and retention, taking into account both receptive and productive aspects (2016). The participants of the study were 60 high school students from Iran divided into the experimental group (narrow reading) and the control group (random reading); each group read 7 texts, each of them containing 10 target words (2016). Students had to read the passages and answer some comprehension questions; when the experiment was over, they took an immediate post-test and two delayed post-tests (2016). The results suggest that "the experimental group obtained higher mean scores at three post-tests" (2016, p. 5). In other words, narrow reading guaranteed better results concerning the participants' receptive and productive vocabulary knowledge both in recall and retention than reading texts about different topics (2016).

Another study worth mentioning is the one by Lulu Lu Bnu-Hkbu and Dave Toewy Bnu-Hkbu, in which they wanted to test the effects of the narrow-intensive reading approach on vocabulary learning by organizing reading workshops (2012). The participants of the study were 37 Year 1 students in a junior high school in Henan, as well as their teachers, who were interviewed, and the texts they had to read were about the same topic, a puppet. The analysis of the results point out some interesting findings. On the one hand, both teachers think that Narrow Reading and Narrow Reading strategies can be a useful tool in their teaching practice because they can improve students' language

competence. In addition, most of the students agreed that the repetition of the target words across the texts was very useful for their acquisition and for improving their reading skills (2012). Concerning the vocabulary learning results, there seemed to be different degrees of acquisition among the students, but interestingly, they got better results in the delayed post-test than in the post-test (2012). This might be due to the fact that the time that passed between the post-test and the delayed post-test could have been useful for target words to be transferred from the Short-Term Memory to the Long-Term Memory; or maybe because students were distracted by some external factors the day of the post-test or because the questions of the delayed post-test seemed to be easier (2012).

Chang and Millet carried out a study in which they investigated the influence of narrow reading on students' reading speed, comprehension and perceptions. The participants of the study were 18-year-old Taiwanese senior high school students who attended a required reading class of four 45-minute sessions per week; they were divided into two groups: the title-group and the genre-group (2017). The participants took a pretest based on a 400-word passage to determine their reading speed and comprehension level. The three texts that students belonging to the genre-group had to read were all *Sherlock Holmes* stories, whereas the three readings for the title-group were versions of *The Railway Children* (2017). Apart from these texts, two more were chosen with the aim of measuring students' reading speeds and comprehension once the



experiment was over; a questionnaire was used to gather students' perceptions on narrow reading (2017). The findings of this study are rather relevant. On the one hand, "reading related texts increased reading speed more efficiently than reading unrelated texts"; both groups got similar rates (2017, p. 12). Furthermore, the reading comprehension levels in both groups were statistically higher when they read texts about the same topic or belonging to the same genre and both groups had positive feelings about narrow reading and its usefulness regarding improving students' comprehension and reading speed (2017).

Kweldju investigated if students had positive feelings towards narrow reading concerning its usefulness to improve their English proficiency, as well as the problems they faced with this method (2008). The participants of the study were 10 female students that belonged to a bachelor's degree programme in which they were trained as English high school English teachers in Indonesia (2008). Each of them had to read as many books as possible about the same author and make an oral presentation about what they read each week, as well as write a summary (2008). At the end of the experiment, "four questionnaires were developed to discover students' problems, satisfaction, progress and perception on their learning" (2008, p. 160). The results of the questionnaire seem to suggest that narrow reading helped students improve the four skills, as well as their proficiency, vocabulary and general knowledge; they also had positive feelings towards this method (2008).

Cho and Krashen also investigated the role of reading in second language acquisition, hypothesising that if students read texts that were interesting for them, they would get beneficial results concerning language development (1994). The participants in this study were four immigrants to the United States who were exposed to English in different ways and who received diverse amounts of formal instruction (1994). The experiment consisted of a free reading programme, in which students had to read for pleasure texts from the Sweet Valley series by Bantam and they could use a dictionary to check the words they did not know (1994). Their findings seem to suggest that all the participants became enthusiastic readers and that much of their vocabulary gains was the result of this narrow reading (1994). It also appears that “their ability to speak and understand everyday English improved as well” (1994, p. 666).

Some other studies focus on the influence of narrow reading in students’ interest and reading skills. Cho, Ahn and Krashen hypothesized that “students doing narrow reading would show gains in reading comprehension, improved attitudes toward English reading, and an understanding of the benefits of narrow reading” (2005, p. 59). The participants of the research were 37 fourth grade students of English as a foreign language in Korea and read a series of “Clifford” books, which were supplemented with activities based on them (2005). The results after the questionnaire about their interest in reading and the vocabulary and comprehension tests suggest that “students made substantial gains on both sections of the reading test [...] They also showed more interest and

confidence in reading in English, were more eager to read in English, and showed more awareness of the benefits of narrow reading” (2005, p. 61).

## 4. THE STUDY

### 4.1. Description of the study

Having reviewed the literature in relation to narrow reading and vocabulary learning, I turn to present the study I carried out. This research aims at analyzing the effectiveness of narrow reading concerning the acquisition of vocabulary. It focuses on university students enrolled in a Tourism degree: there seems to be a gap in the research among students of this age and academic level who are registered in university courses in which EMI (English as a Medium of Instruction) programmes are implemented. The target vocabulary is related to Agritourism, an area which is part of their studies. This thesis also investigates the ease and difficulty with which the target words are acquired, depending on their *grammatical category*, their *length*, the *number of times they appear in the texts*, their *deducibility from context*, their *type* (technical, academic) and their *frequency*, as determined by the British National Corpus (i.e. the most frequent 1,000, 2,000, 3,000 words and *low frequency words*). This thesis is longitudinal and also studies the role the following variables have in this learning process: *proficiency*, *reading comprehension skills*, *general receptive knowledge* and *general productive knowledge*.

### 4.2. Research questions

This thesis aims to answer the following research questions:

1. How effective is narrow reading for vocabulary acquisition in the university context?
2. What is the relationship between students' proficiency and vocabulary learning through narrow reading?
3. How do variables such as grammatical category, length, frequency, the number of exposures, deducibility from context and type of word affect the level of difficulty regarding vocabulary learning?
4. To what extent are reading comprehension skills related to proficiency and vocabulary learning through narrow reading?
5. To what extent do students with higher receptive and productive vocabulary knowledge acquire more vocabulary than those with a lower level?
6. To what extent is students' general receptive vocabulary knowledge related to proficiency and previous knowledge of the target words?

#### 4.3. Method

##### 4.3.1. Subjects

The participants of this study are third course students of Tourism at Universidad Autónoma de Madrid, who attended classes in the afternoon during the 2015-2016 academic year. The research study was carried out during the 'English IV' class in the second term: Tuesdays (16:00-17:30) and Wednesdays (17:45-19:15) from February to May. 80 students

participated in the study. Only 14 of them attended all the 18 sessions of the experiment: these 14 students, whose age ranged from 21-25 years old, are the focus of this study.

Concerning their knowledge of English, apart from having studied English at school/high school and, in some cases, having enhanced their learning experience with extra classes in language schools or trips to English-speaking countries, they also attended English classes during the first and second terms of the first year of their degree and during the first term of the third course.

#### 4.3.2. Materials

##### 4.3.2.1. *Oxford Placement Test*

The Oxford Placement Test, which has been widely validated and provides accurate and reliable results, was used to measure student's general language ability. According to Allan (2004, p. 4), they are "effective initial placement instruments and a reliable means of grading students at all levels [...], with a consistent record of predictive validity in respect to examination entry". In effect, the OPTs have been calibrated onto the Common European Framework and against major international language exams, e.g. IELTS, Cambridge ESOL Main Suite Exams, CELS and BEC (2004). It has two sections: the Grammar Test and the Listening Test. For the purpose of this research, the Grammar Test was employed. It is divided into two parts, each of them consisting of 50 multiple choice

questions. Students had to choose the right option among three possible answers. Some sentences are unrelated, while others are topic-related.

#### 4.3.2.2. *Vocabulary Levels Test*

I used Tom Cobb's adaptation — version C, (2000) — of Laufer and Nation's Vocabulary Levels Test (1999) in order to assess students' general productive vocabulary. It can be found on the Compleat Lexical Tutor. This test contains 72 questions divided into four parts: 2,000 level, 3,000 level, 5,000 level and 10,000 level. Each of the sections include 18 sentences with a gap in which students had to write a suitable word. The first letters of the word are given, as can be seen in the following example:

The dress you're wearing is lov\_\_\_\_\_

See *Appendix A* for the complete test.

#### 4.3.2.3. *Vocabulary Size Test*

The Vocabulary Size Test, BNC Version (1-14k) by Nation and Beglar (2007), was used to evaluate students' general receptive vocabulary. It can be accessed on the Compleat Lexical Tutor. It includes 140 questions organized in 14 sections: from 1,000 level to 14,000 level. In each of the parts, students are given 10 sentences with a word in bold and four synonyms or short definitions from which they had to choose the correct answer, as it is shown next:

SEE: They **saw** it.

a.cut b.waited for c.looked at d.started

See *Appendix B* for the complete test.

#### 4.3.2.4. *Pre-test*

I used a modified vocabulary knowledge scale from Wesche and Paribakht (1997, as cited in Read, p.133) to check if students knew the 30 target words of the experiment. For each word, they had to choose between two options:

- I. I know this word. It means (translation into Spanish or explanation of its meaning)
- II. I can use this word in a sentence (write a sentence in English)

See *Appendix C* for the complete test.

With the purpose of controlling for students' overestimating their vocabulary knowledge, 10 nonwords were included in the pretest, which amounted to 25% of the total number of words analysed in this study. These nonwords were formed by changing some letters in real words. Nonwords with Englishlike spelling were also used (Anderson & Freebody, 1983).

#### 4.3.2.5. *Readings*

Narrow reading was implemented by means of Ecotourism texts and, more specifically, the subtopic of Agritourism. These texts were taken from online newspapers and specialized blogs. This topic allowed for repetition of given words.



15 texts were used in total. For each text, I chose the words they would not probably know and included them in a list. Some of the texts had to be slightly modified for the variables in the design to be balanced.

Text length varied from 274 to 774 words. The length of each text can be seen in Table 4.

*Table 4: Texts length*

TEXTS	NUMBER OF WORDS
Text 1	774
Text 2	399
Text 3	274
Text 4	604
Text 5	732
Text 6	690
Text 7	667
Text 8	503
Text 9	768
Text 10	382
Text 11	474
Text 12	701
Text 13	728
Text 14	696
Text 15	723

The texts were classified according to the topic. Thus, the first six texts define and elaborate on the concept of Agritourism, while the rest of them are built around specific places where Agritourism is a common practice. In this way, students got familiar with the topic in the first place so that they could keep reading more difficult specific texts as the experiment moved forward.

Finally, for each of the texts, I prepared two comprehension questions with the aim of checking students' comprehension of the texts. None of the target words was the focus of any of these questions. See *Appendix F* for all the texts and their comprehension questions.

#### 4.3.2.6. *Target words*

The classification of the target words was carried out by a native teacher of English, an experienced Spanish teacher of English and the researcher herself. When there was no complete agreement, the final classification was based on the classes on which, at least, two of the raters agreed.

The total number of target words is 30 (10 nouns, 10 adjectives and 10 verbs). Each grammatical category represents 1/3 of the words. This can be appreciated in Table 5.

*Table 5: Target words according to their grammatical category*

GRAMMATICAL CATEGORY	WORDS
Nouns	Hayride, maze, patch, revenue, county, crop, harvest, orchard, livestock, venture
Adjectives	Current, quirky, comprehensive, ripe, budding, thriving, former, statewide, tangy, underway
Verbs	Encompass, craft, oversee, praise, range, supply, sow, outline, pose, wrap

All the words appear in at least 5 of the 15 texts (1/3) and a maximum of 10, as we can see in Table 6. See *Appendix G* for the whole list.

*Table 6: Words and number of texts in which they appear (examples)*

WORD	NUMBER OF TEXTS (out of 15)
Hayride	10
Ripe	7
Wrap	5

In each text, there are at least 3 words of each grammatical category (1/3) and at least 10 words of the 30 target words (1/3). We can see some

examples of this distribution in Table 7. See *Appendix H* for the whole list.

*Table 7: Distribution of words along the texts according to their grammatical category (examples)*

	NOUNS	ADJECTIVES	VERBS
TEXT 1  3(n)+4(adj)+3(v) = 10 target words	3: hayride, maze, revenue	4: comprehensive, current, quirky, statewide	3: encompass, outline, pose
TEXT 2  7(n)+3(adj)+3(v) = 13 target words	7: crop, harvest, maze, orchard, patch, revenue, venture	3: budding, quirky, underway	3: craft, oversee, supply
TEXT 3  3(n)+4(adj)+3(v) = 10 target words	3: county, hayride, maze	4: budding, current, former, statewide	3: craft, pose, wrap

Another aspect I took into account is the number of times each word appeared in the texts. The words were repeated a minimum of 5 times and a maximum of 20 times. This can be seen in Table 8. See *Appendix I* for the whole list.

*Table 8: Total number of exposures of the target words (examples)*

WORD	TOTAL NUMBER OF EXPOSURES
Hayride	10
Maze	23
Patch	13

I also classified the target words according to their length taking into account the number of syllables, as can be seen in Table 9.

*Table 9: Classification of words according to their length*

LENGTH	WORDS
1 syllable	Crop, maze, patch, craft, pose, praise, range, ripe, sow, wrap
2 syllables	County, harvest, hayride, livestock, orchard, venture, budding, current, former, quirky, statewide, tangy, thriving, outline, supply
3 syllables	Revenue, underway, encompass, oversee
4 syllables	Comprehensive

Another variable I analysed is deducibility from context, that is to say, whether the meaning of the target words can be inferred from the context in which they appear. The classification of the words according to this can be seen in Table 10.

*Table 10: Classification of words according to deducibility from context*

DEDUCIBILITY FROM CONTEXT	WORDS
Can be deduced	County, crop, harvest, livestock, orchard, patch, revenue, venture, comprehensive, current, former, ripe, statewide, tangy, underway, craft, encompass, outline, oversee, pose, praise, range, sow, supply, wrap
Can't be deduced	Hayride, maze, quirky, budding, thriving

Finally, I classified the target words according to their type, as can be appreciated in Table 11.

Table 11: Classification of words according to their type

TYPE OF WORD	WORDS
Technical	Crop, harvest, revenue, former, statewide, thriving, oversee, supply
Academic	Comprehensive, pose, range
High frequency words	Current, outline, praise, ripe, sow, wrap, craft
Low frequency words	Hayride, livestock, maze, orchard, budding, quirky, underway, tangy, patch, venture, encompass, county

#### 4.3.2.7. Post-test

I used the same format as the pre-test: a modified vocabulary knowledge scale from Wesche and Paribakht, (1997, as cited in Read, p. 133) to check if students had acquired the 30 target words selected for the experiment. I changed the order in which the words appeared. To complete this test, they had to choose between two options:

- I. I know this word. It means (translation into Spanish or explanation of its meaning)
- II. I can use this word in a sentence (write a sentence)

See *Appendix D* for the complete test.

As in the case of the pretest, with the purpose of controlling for students' overestimating their vocabulary knowledge, 10 nonwords were included in the posttest, which amounted to 25% of the total number of words analyzed in this study. These nonwords were formed by changing some letters in real words. Nonwords with Englishlike spelling were also used (Anderson & Freebody, 1983).

#### 4.3.2.8. *Questionnaire*

Once the experiment was over, the students were administered a questionnaire in order to learn about their opinions on narrow reading and vocabulary acquisition. This seemed to be a good way to have some useful feedback regarding the experiment. The questionnaire consists of three statements for which students had to choose the right option among the Likert scale: 'I agree-I partially agree-I disagree' according to their experience and opinion. The statements are:

- I have improved my reading skills after reading these 15 texts
- I prefer reading texts about the same topic rather than read unrelated texts
- I find reading texts on the same topic, like Agritourism, helpful for vocabulary acquisition.

For the second statement, they also had to provide the reason for their choice. Finally, students were invited to write any comments they wanted to make about the treatment. See *Appendix E* for the complete test.



#### 4.3.3. Procedure

The whole experiment took place during the second term of the academic course 2015/2016 and lasted for 11 weeks. Before I implemented the treatment, students did different previous tests during the first two weeks. The first day of the experiment, they took the Proficiency Test (45 minutes) and a pre-test which contained the target words that would later appear in the texts and which would be evaluated in the post-test after the treatment. They had 30 minutes to do the pre-test. The next day, they did two General Vocabulary Tests in order to assess their knowledge of productive and receptive vocabulary. The productive test was Tom Cobb's adaptation – version C (2000) – of Laufer and Nation's Vocabulary Levels Test (1999) and took 25 minutes. The receptive test was the Vocabulary Size Test, BNC Version (1-14k) by Nation and Beglar (2007) and took 40 minutes.

During the next 15 sessions, students had around 20 minutes to read a text about Agritourism in class and answer two comprehension questions. They were not allowed to look up the words they did not know. I wanted to test incidental vocabulary acquisition through narrow reading. They did not do any vocabulary exercises or revisions either.

Once students covered all the reading sessions, they did a 30-minute posttest on the target words in order to test several aspects concerning their possible vocabulary acquisition. They also answered a 5-minute questionnaire so as to see their opinion about the treatment

and its impact on their reading skills and vocabulary learning. The whole procedure can be seen in Table 12.

Table 12: Procedure

<b>FEBRUARY</b>		
Week 01-07	1 Day	Proficiency Test/Pre-test
Week 08-14	2 Days	Receptive Voc Test/Productive Voc Test/Text 1+Comprehension questions
Week 15-21	2 Days	Text 2+Text 3+Comprehension questions
Week 22-28	2 Days	Text 4+Text 5+Comprehension questions
<b>MARCH</b>		
Week 29-06	2 Days	Text 6+Text 7+Comprehension questions
Week 07-13	2 Days	Text 8+Text 9+Comprehension questions
Week 14-20	2 Days	Text 10+Text 11+Comprehension questions
Week 21-27	<b>EASTER</b>	
<b>MARCH/APRIL</b>		
Week 28-03	2 Days	Text 12+Text 13+Comprehension questions
<b>APRIL</b>		
Week 04-10	2 Days	Text 14+Text 15+Comprehension questions
Week 11-17	1 Day	Post-test/Questionnaire

#### 4.3.4. Measurements

##### 4.3.4.1. *Oxford Placement Test*

One point was given for each correct option. Since the total number of items is 100 (50 in each part), students could get a maximum of 100 points.

##### 4.3.4.2. *Vocabulary Levels Test*

One point was given for each right answer. The total number of sentences is 72 (18 in each of the four levels). The level of mastery of each of the parts is achieved if the students get at least 83% of accurate answers (15 out of 18) (Read, 2000).

##### 4.3.4.3. *Vocabulary Size Test*

One point was given for each correct option. The total number of items is 140 (10 in each of the 14 levels). In order to calculate in which level students are, all the points were added and a correlation was made out of 14,000.

##### 4.3.4.4. *Pre-test*

For each of the 30 words, students could get one point if they provided a translation of the word in Spanish (or explain its meaning) or two points if they were able to use it in a sentence in English —attention was mainly paid to the use of the target word at issue, grammatical mistakes were not taken into account. Thus, the total number of points they could get in this test is 60. The items and their value for each word are as follows:

- I. I know this word. It means: (translation into Spanish): 1 POINT
- II. I can use this word in a sentence (write a sentence in English using this word): 2 POINTS

#### 4.3.4.5. *Readings*

Each reading included two comprehension questions. For each of them, students could get the following scores:

- 0 POINTS: wrong answer
- 1 POINT: partially correct answer
- 2 POINTS: correct answer, but mostly copied from the text
- 3 POINTS: correct answer with the students' own words

Hence, the maximum number of points per reading is 6 and, taking into account the 15 readings, 90.

#### 4.3.4.6. *Post-test*

As in the pre-test, for each of the 30 words, students could obtain one point if they wrote a translation in Spanish or two points if they could use the word in a sentence in English, only assessing how the target words were used (semantic knowledge), I did not focus on any other grammatical mistakes. Therefore, the total number of points they could get in this test is 60. The scale used for this is the following one:

- I. I know this word. It means (translation into Spanish): 1 POINT
- II. I can use this word in a sentence (write a sentence): 2 POINTS

#### 4.3.4.7. *Questionnaire*

This questionnaire was measured using the Likert scale: I agree (3 points)—I partially agree (2 points)—I disagree (1 point). There were two open questions which were analyzed qualitatively.

## 5. ANALYSIS

Once I collected all the data, the readings and the questionnaires done by the students during the whole treatment, the ratings were carried out by a native teacher of English, an experienced Spanish teacher of English and the researcher herself. When there was no complete agreement, the final score was based on the ratings on which, at least, two of the raters agreed. The data were organized in an Excel file in several ways in order to carry out two types of analysis: one based on means to show a general picture of the results and another one using the SPSS in order to see statistical trends. Since it is a longitudinal study, subject mortality is unavoidable. In any case, despite the few number of subjects, statistical analyses were carried out, with an exploratory end in mind, to find out about possible trends.

The reliability for the pretest and the posttest is displayed in Table 13 and Table 14 below. The high reliability of the two tests – 0.785 for the pretest and 0.853 for the posttest – shows that they do discriminate among item types and individuals.

*Table 13: Reliability for Pretest*

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.785	.781	18

*Table 14: Reliability for Posttest*

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.853	.842	29

## 6. RESULTS

### 6.1. Gains per word

Before having a look at the gains per word, I will show their mean scores in the pretest and in the posttest in Table 15 below. As can be seen, students got higher scores for most of the words in the posttest than in the pretest, which means that they were acquired to a greater or lesser degree. There are three words – *comprehensive*, *former* and *praise* – which got the same points both in the pretest and in the posttest. In addition, there are other three words – *current*, *underway* and *pose* – which got better scores in the pretest than in the posttest, which suggests that some of their knowledge was lost by the students.

Table 15: Words scores in the pretest and in the posttest

WORDS	PRETEST SCORES (out of 28)	PRETEST SCORES % (out of the total they could get)	POSTTEST SCORES (out of 28)	POSTTEST SCORES % (out of the total they could get)
County	2	7.14	5	17.85
Crop	0	0	15	53.57
Harvest	4	14.28	12	42.85
Hayride	0	0	5	17.85



Livestock	0	0	10	35.71
Maze	6	21.42	9	32.14
Orchard	0	0	9	32.14
Patch	0	0	1	3.57
Revenue	8	28.57	14	50
Venture	8	28.57	14	50
Budding	0	0	4	14.28
Comprehensive	4	14.28	4	14.28
Current	19	67.85	17	64.28
Former	6	21.42	6	21.42
Quirky	2	7.14	4	14.28
Ripe	0	0	1	3.57
Statewide	0	0	5	17.85
Tangy	0	0	6	21.42
Thriving	1	3.57	6	21.42
Underway	2	7.14	1	3.57
Craft	2	7.14	4	14.28
Encompass	0	0	2	7.14
Outline	2	7.14	7	25
Oversee	3	10.71	10	35.71

Pose	1	3.57	0	0
Praise	2	7.14	2	7.14
Range	0	0	3	10.71
Sow	0	0	1	3.57
Supply	12	42.85	23	82.14
Wrap	8	28.57	24	85.71

The gains in percentage for each word can be seen in Table 16 and Figure 1:

*Table 16: Gains per word*

WORD	GAINS % (out of the total they could get)
Wrap	80.00
Supply	68.75
Crop	53.57
Livestock	35.71
Harvest	33.33
Orchard	32.14
Revenue	30.00
Venture	30.00

Oversee	28.00
Tangy	21.43
Outline	19.23
Thriving	18.52
Hayride	17.86
Statewide	17.86
Budding	14.29
Maze	13.64
County	11.54
Range	10.71
Quirky	7.69
Craft	7.69
Encompass	7.14
Patch	3.57
Ripe	3.57
Sow	3.57
Comprehensive	0.00
Former	0.00
Praise	0.00
Pose	-3.70

Underway	-3.85
Current	-11.11

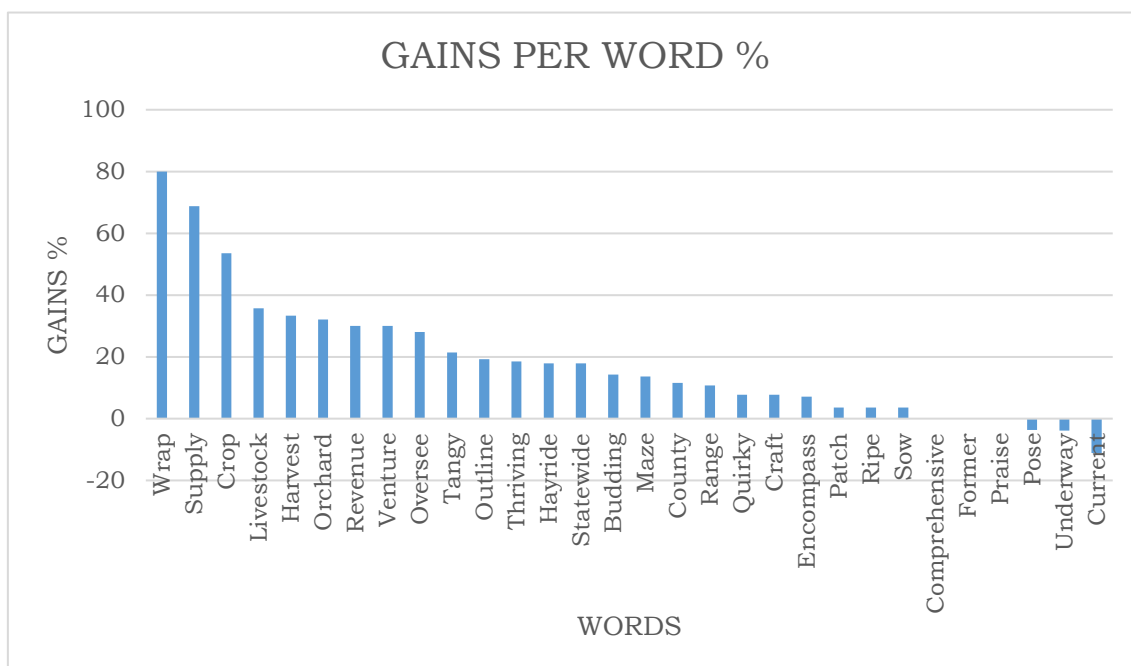


Figure 1: Gains per word

As we can see, students seem to have vocabulary gains in 24 out of the 30 target words. On the other hand, they did not acquire three words at all – *comprehensive*, *former* and *praise* – and, surprisingly, they lost some of the previous knowledge of other three words – *current*, *underway* and *pose* –.

It is also important to say that the two words with the highest gains are verbs: *wrap* (80%) and *supply* (68.75%). Furthermore, those words with no gains or whose knowledge was lost are all adjectives –

*comprehensive* (0%), *former* (0%), *underway* (-3.85%) and *current* (-11.11) – and verbs – *praise* (0%) and *pose* (-3.70%) –.

It is interesting to see the percentage of words that were mainly learnt receptively and productively, which can be appreciated in Table 17.

Table 17: Receptive and productive gains per word

WORDS	RECEPTIVE GAINS	RECEPTIVE GAINS % (out of the total they could get)	PRODUCTIVE GAINS	PRODUCTIVE GAINS % (out of the total they could get)
County	3	23.07	0	0
Crop	8	57.14	7	50
Harvest	5	45.45	3	23.07
Hayride	3	21.42	2	14.28
Livestock	6	42.85	4	28.57
Orchard	5	35.71	4	28.57
Patch	1	7.14	0	0
Revenue	4	40	2	20
Venture	3	37.5	3	25
Comprehensive	1	8.33	-1	-8.33
Ripe	1	7.14	0	0

Statewide	3	21.42	2	14.28
Outline	3	23.07	2	15.38
Oversee	4	33.33	3	23.07
Range	2	14.28	1	7.14
Sow	1	7.14	0	0
Supply	4	80	7	63.63
Wrap	8	88.88	8	72.72
Maze	1	10	2	16.66
Thriving	2	15.38	3	21.42
Budding	2	14.28	2	14.28
Quirky	1	7.69	1	7.69
Tangy	3	21.42	3	21.42
Craft	1	7.69	1	7.69
Encompasses	1	7.14	1	7.14
Former	0	0	0	0
Praise	0	0	0	0
Current	-1	-50	0	0
Underway	0	0	-1	-7.69
Pose	-1	-7.69	0	0

We can observe five groups of words. First of all, 60% of the words – words in blue – were better learnt receptively than productively. Secondly, 6.66% of the words – words in purple – had better scores productively than receptively. Thirdly, 16.66% of the words – words in green – got the same percentage of gains receptively and productively. Fourthly, 6.66% of the words – words in red – had no receptive or productive gains at all. Finally, 10% of the words – words in grey – got no gains (either receptively or productively) and some of their knowledge was lost (either receptively or productively).

## 6.2. Gains per student

The gains in percentage for each student can be appreciated in Table 18 and Figure 2:

*Table 18: Gains per student*

STUDENT	GAINS % (out of the total they could get)
Student 1	14.29
Student 2	15.38
Student 3	19.64
Student 4	20.69
Student 5	1.79
Student 6	26.92

Student 7	20
Student 8	55.26
Student 9	7.84
Student 10	0
Student 11	19.30
Student 12	19.15
Student 13	22.22
Student 14	18.97

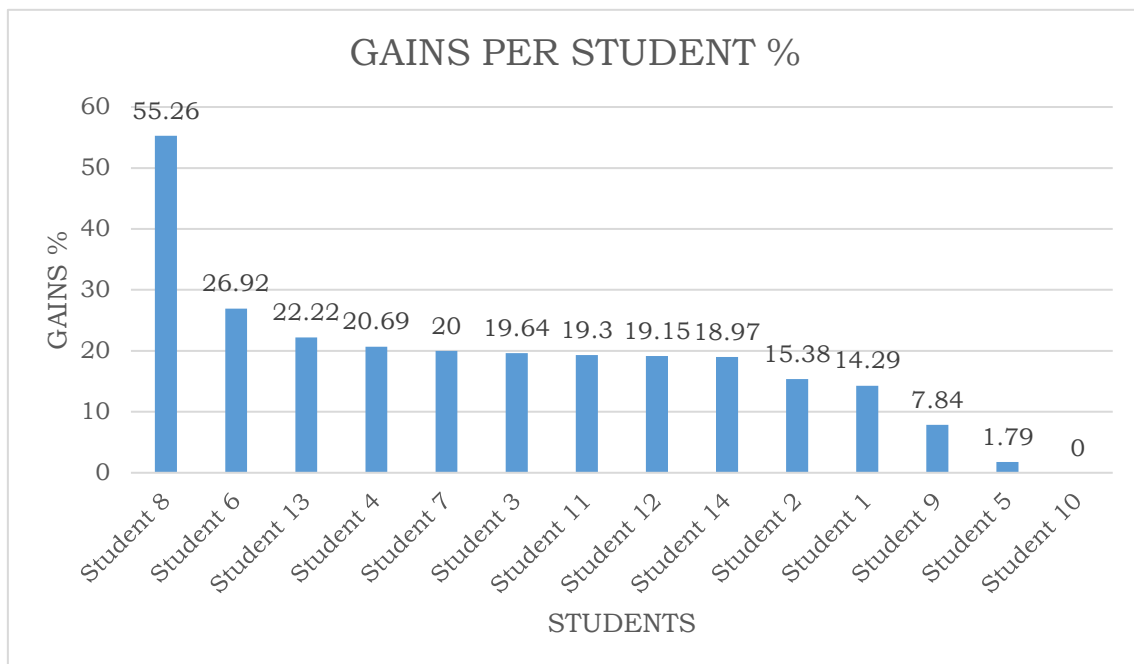


Figure 2: Gains per student

These results seem to suggest that students learnt vocabulary through narrow reading to a greater or lesser extent, except in the case of *student 10*, who did not acquire any of the words. As we can appreciate, most of



the students had similar vocabulary gains, but there is one particular case that is considerably above average – *student 8* – and two subjects that are far from it – *students 9 and 5* –, as their gains are very low.

### 6.3. Pretest-Posttest

In Table 19, we can observe the mean and standard deviation of students' scores in the pretest and in the posttest.

*Table 19: Pretest-Posttest: Mean and Standard Deviation*

VARIABLE	MEAN	STANDARD DEVIATION
Pretest	6.57	5.46
Posttest	16.07	9.47

The positive answers to the nonwords in my study had a very small incidence in the results, which seems to indicate that, in this case, the students did not tend to mark words they did not know. Therefore, the sufficiently high reliability measures of this vocabulary test indicate that the formula adopted can be considered a valid measure of vocabulary knowledge.

With the aim of answering research question number 1, namely how effective narrow reading is for vocabulary learning acquisition in the university context, a Paired-Samples T-Test was conducted to compare students' vocabulary knowledge of the target words before and after the

treatment, that is to say, to find out if students learnt the target words by means of narrow reading. The results showed that there was a significant difference in the scores for the pretest ( $M = 6.57$ ,  $SD = 5.45$ ) and the posttest ( $M = 16.07$ ,  $SD = 9.46$ );  $t(13) = -6.64$ ,  $p = 0.000$ , as we can appreciate in Table 20 and Table 21. In other words, narrow reading appears to have a positive effect on increasing students' vocabulary knowledge.

Table 20: Paired Samples Statistics Pretest-Posttest

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	6.57	14	5.459	1.459
	Posttest	16.07	14	9.466	2.530

Table 21: Paired Samples Test Pretest-Posttest

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Pretest - Posttest	-9.500	5.346	1.429	-12.587	-6.413	-6.649	13	.000

Figure 3 shows the linear relation between these two variables.

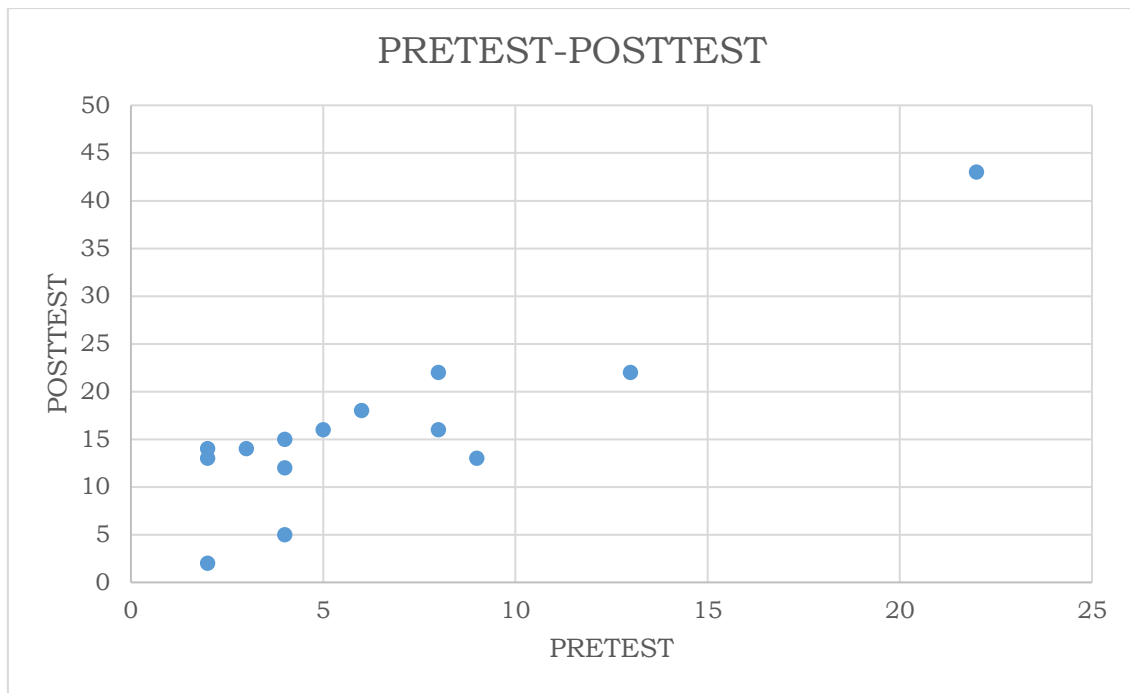


Figure 3: Pretest-Posttest

#### 6.4. Pretest-Proficiency

Table 22 shows the mean and standard deviation of students' scores in the pretest and their level of proficiency.

Table 22: Pretest-Proficiency: Mean and Standard Deviation

VARIABLE	MEAN	STANDARD DEVIATION
Pretest	6.57	5.46
Proficiency	62.35	12.42

In order to answer research question number 2, which was related to the relationship between students' level of proficiency and vocabulary learning through narrow reading, a Pearson correlation was computed.

The findings suggested that there was a significant correlation between students' proficiency and their results in the pretest ( $r = 0.674^*$ ,  $n = 14$ ,  $p = 0.008$ ), as can be seen in Table 23. That is to say, the higher level of proficiency of the students, the better scores they got in the pretest.

Table 23: Pretest-Proficiency Correlation

		PROF_opt	PRETEST
PROF_opt	Pearson Correlation	1	.674**
	Sig. (2-tailed)		.008
	N	14	14
PRETEST	Pearson Correlation	.674**	1
	Sig. (2-tailed)	.008	
	N	14	14

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The scatterplot in Figure 4 shows the linear relation between these two variables.

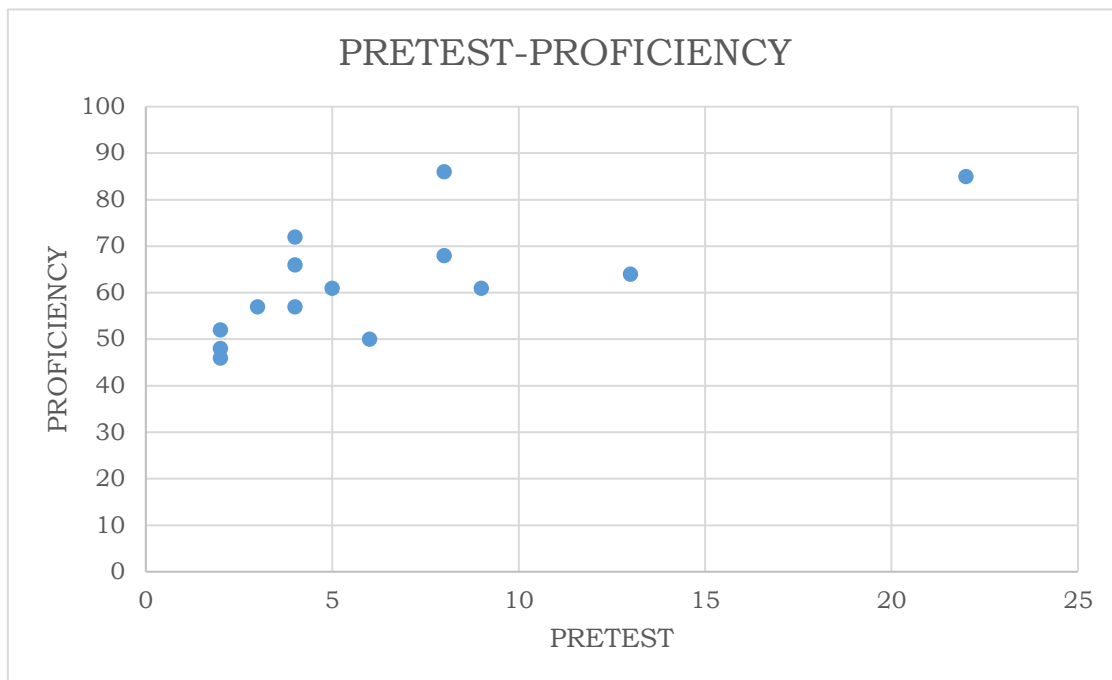


Figure 4: Pretest-Proficiency

### 6.5. Posttest-Proficiency

Table 24 displays the mean and standard deviation of students' results in the posttest and their level of proficiency.

Table 24: Posttest-Proficiency: Mean and Standard Deviation

VARIABLE	MEAN	STANDARD DEVIATION
Posttest	16.07	9.47
Proficiency	62.35	12.42

In order to answer research question number 2, which investigated the relationship between students' proficiency and vocabulary learning through narrow reading, a Pearson correlation was calculated. The findings suggested that there was a significant correlation between the two variables ( $r = 0.556^*$ ,  $n = 14$ ,  $p = 0.039$ ), as shown in Table 25. In other words, the students with high proficiency seem to have got better scores in the posttest, which means that they gained more vocabulary knowledge of the target words than those students with low proficiency.

Table 25: Posttest-Proficiency Correlation

		<b>Correlations</b>	
		PROF_opt	POSTTEST
PROF_opt	Pearson Correlation	1	.556*
	Sig. (2-tailed)		.039
	N	14	14
POSTTEST	Pearson Correlation	.556*	1
	Sig. (2-tailed)	.039	
	N	14	14

\*. Correlation is significant at the 0.05 level (2-tailed).

Next, we can find Figure 5 showing the linear relationship between these scores.

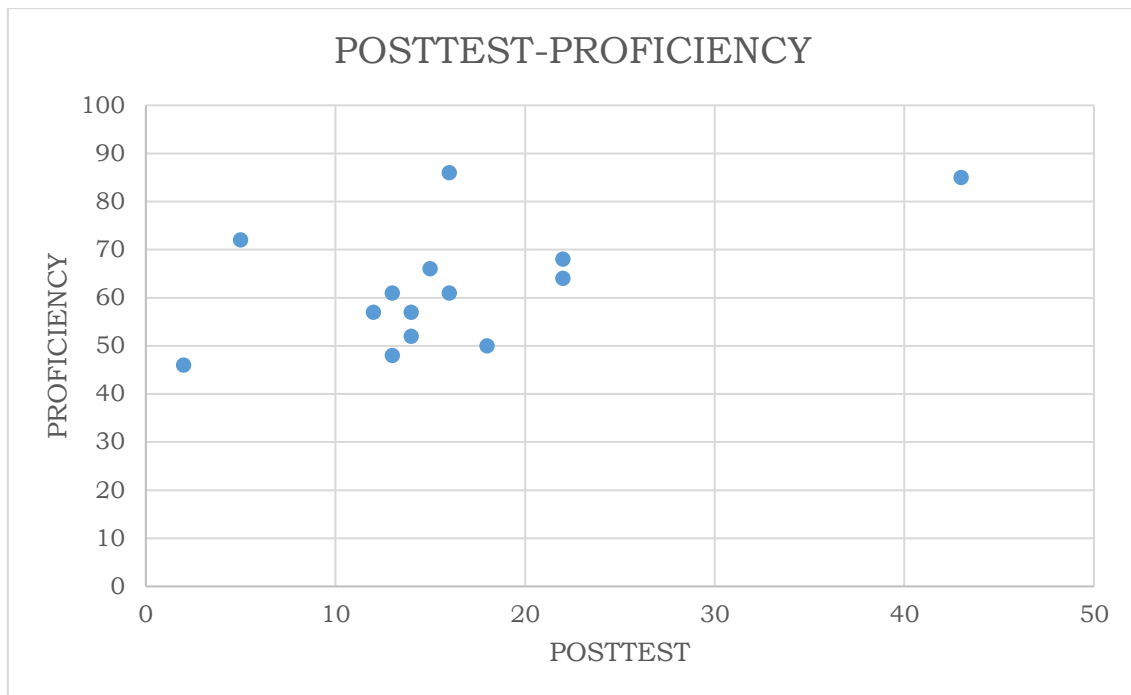


Figure 5: Posttest-Proficiency

## 6.6. Variables explaining receptive gains

In order to answer research question number 3, a CATREG – Categorical Regression – was used to find out the influence of the following variables on receptive vocabulary gains – *type of word*, *number of exposures* (number of times each word appeared in the texts), *grammatical category*, *deducibility from context* and *length*.

There were four levels for *type of word* (technical, academic, high frequency and low frequency); ten levels for *number of exposures* (5, 6, 7, 8, 9, 10, 13, 14, 20 and 23 repetitions), three levels for *grammatical category* (noun, adjective and verb), two levels for *deducibility from context* (can and can't be deduced from context) and there were four levels for *length* (one syllable, two syllables, three syllables and four syllables).

It should be highlighted that the CATREG approach was chosen because not all the variables analysed were numerical, as in the case of *type of word*, *grammatical category* and *deducibility from context*. As opposed to standard linear regression, regression with optimal scaling helps account for non-linear relationships by providing three scaling levels for each variable to find the best fitting model (SPSS, Categories). It should be noted that the *length*, *number of exposures* and *deducibility from context* variables had to be removed because there was collinearity and, therefore, they did not contribute to the model. We can find the transformation plot for receptive gain in Figure 6.

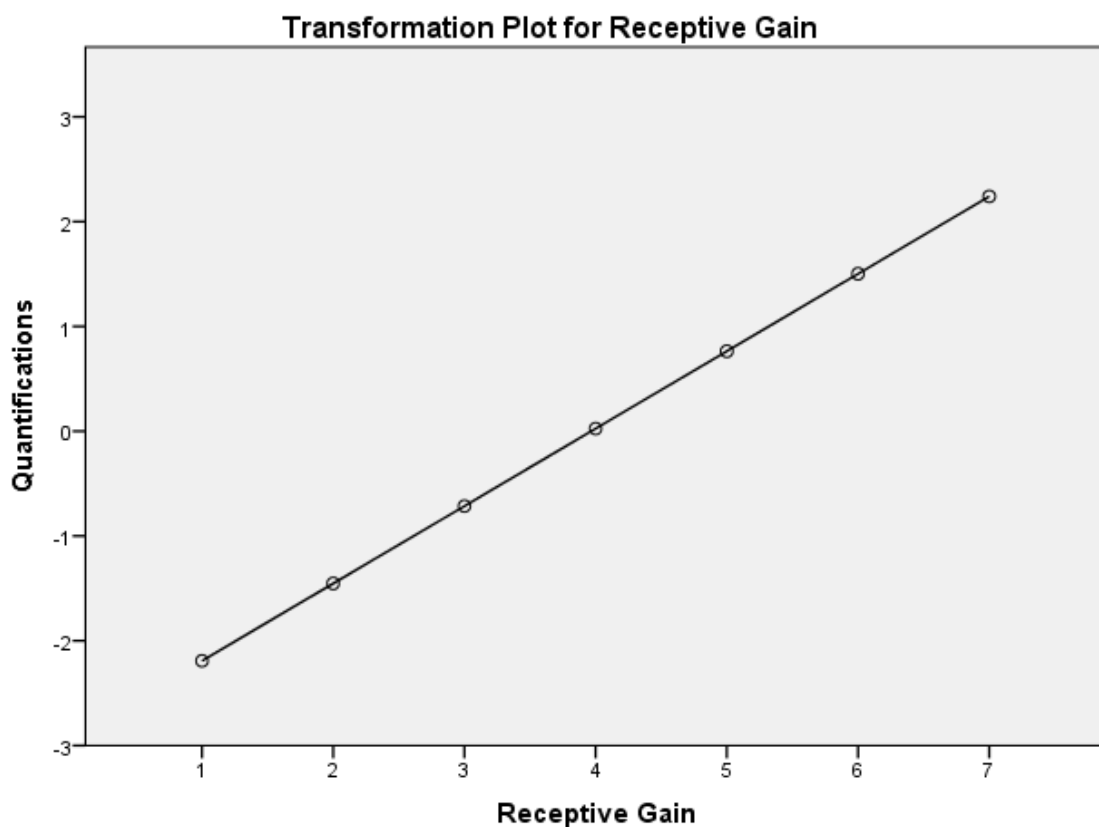


Figure 6: Transformation Plot for Receptive Gain



As can be seen in Table 26 below, regression with optimal scaling yielded an R<sup>2</sup> of 0.40, indicating that 40 percent of the variance in the transformed vocabulary gain was explained by two of the transformed predictors: *grammatical category* and *type of word*. The other three variables – *number of exposures*, *deducibility from context* and *length* – did not seem to account for variance in vocabulary gains.

Table 26: Receptive gains and variables: Model Summary

<b>Model Summary</b>				
	Multiple R	R Square	Adjusted R Square	Apparent Prediction Error
Standardized Data	.639	.409	.286	.591

<sup>2</sup>Dependent Variable: Receptive gain in percentage

Predictors: Grammatical category, Type of word

The analysis of variance reported in Table 27 shows an *F* statistic of 3.320 with  $p < 0.05$  which, together with R<sup>2</sup>, indicate that the model performed well.

---

<sup>2</sup> Predictors: Grammatical category (1: nouns, 2: adjectives, 3: verbs), type of word (1: technical, 2: academic, 3: high frequency, 4: low frequency)

Table 27: Receptive gains and variables: ANOVA

<b>ANOVA</b>					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	12.265	5	2.453	3.320	.020
Residual	17.735	24	.739		
Total	30.000	29			

Dependent Variable: Receptive gain in percentage

Predictors: Grammatical category, Type of word

Based on the overall  $F$  statistic, we can reject the null hypothesis that there is no linear relationship between the transformed predictors and the transformed response.

By inspecting the partial correlation coefficients, the part correlation coefficients and the  $F$  test for each variable (see Table 28 and Table 29), it can be concluded that both *grammatical category* and *type of word* predict receptive vocabulary gains in a similar way. It is worth remembering that the squared partial correlation of each of these predictors indicates the proportion of the variance in the response they explain if the effects of the other variables are removed. Going back to *grammatical category*, it has a partial correlation of 0.520, so it explains 27% of the variation in vocabulary gain if the effects of the other variables are removed. On the other hand, *type of word* has a partial correlation of 0.529 – accounting for 28% of the variation in vocabulary gain, after removing the effects of the other predictors –.

Table 28: Receptive gains and variables: Coefficients

<b>Coefficients</b>					
	Standardized Coefficients		df	F	Sig.
	Beta	Bootstrap (1000) Estimate of Std. Error			
1: noun, 2: adjective, 3: verb	.470	.124	2	14.265	.000
Tech_Acad_LowFreq4000-on	.481	.132	3	13.285	.000

Dependent Variable: Receptive gain in percentage

Table 29: Receptive gains and variables: Correlations and Tolerance

<b>Correlations and Tolerance</b>						
	Correlations			Importance	Tolerance	
	Zero-Order	Partial	Partial		After Transformation	Before Transformation
1: noun, 2: adjective, 3: verb	.424	.520	.468	.487	.991	.943
Tech_Acad_LowFreq4000-on	.436	.529	.479	.513	.991	.943

Dependent Variable: Receptive gain in percentage

The high tolerance values for each of the two predictors, also displayed in Table 29 above, indicate that their value cannot be predicted well from the other independent variables and therefore they are all needed in the model.

Now, I turn to analyse the transformation plots (Figure 7 and Figure 9) and the mean gains, grouped by factor levels, in order to see the trends in each variable. As the transformation plot for *grammatical category* in Figure 7 shows, none of the levels of the transformed variable have been collapsed and they remain relatively homogeneously distributed, indicating that all the categories are needed to describe the response. Since the corresponding regression coefficient is positive, as we can observe in Figure 7, the words which were better acquired were the nouns (1), followed by the verbs (3) and the adjectives (2).

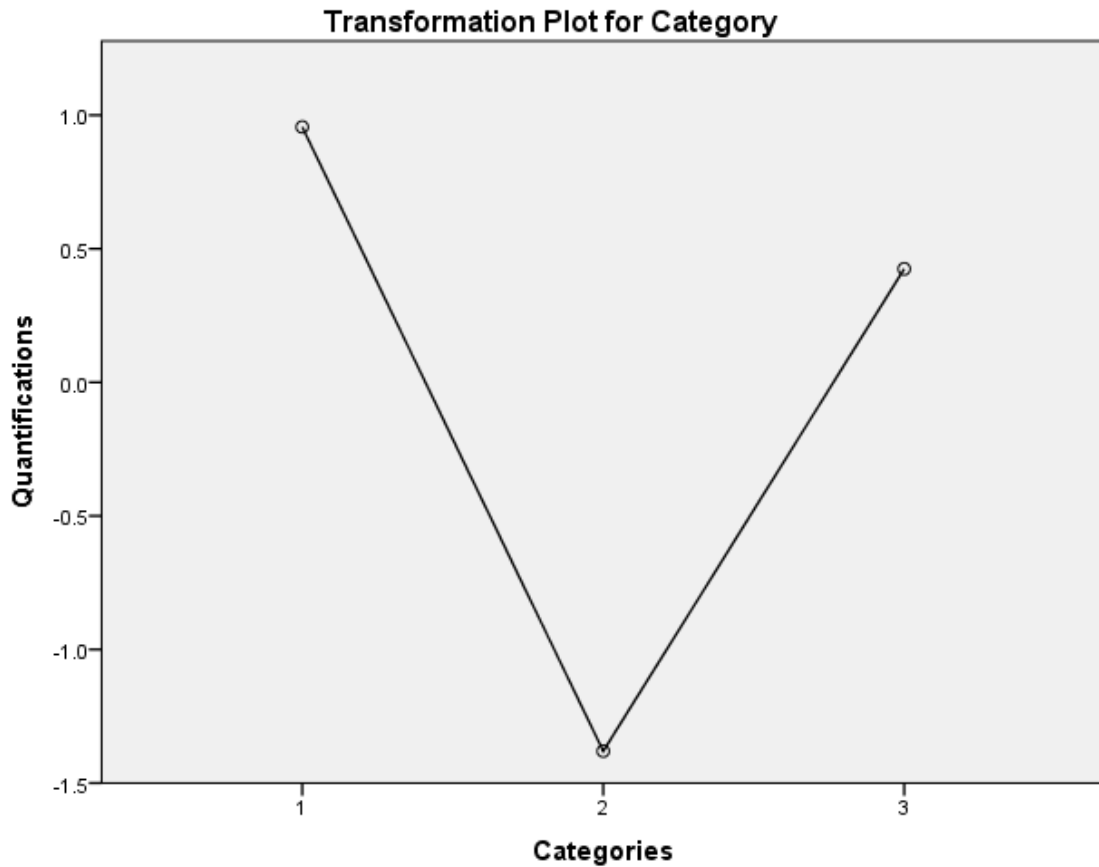


Figure 7: Transformation Plot for grammatical category

The distance between the transformed values for adjectives and verbs is smaller than the distance between the transformed values assigned to nouns and adjectives, indicating that nouns obtained much more gain than adjectives.

The gains, percentages and standard deviation for each of the three grammatical categories can be observed in Table 30 and Figure 8. See *Appendix J* for the classification of words according to their grammatical category.

Table 30: Receptive gains according to grammatical category

GRAMMATICAL CATEGORY	RECEPTIVE GAINS	RECEPTIVE GAINS % (out of the total they could get)	STANDARD DEVIATION
Nouns	39	32.02	16.09
Adjectives	12	4.57	20.62
Verbs	23	25.38	33.20

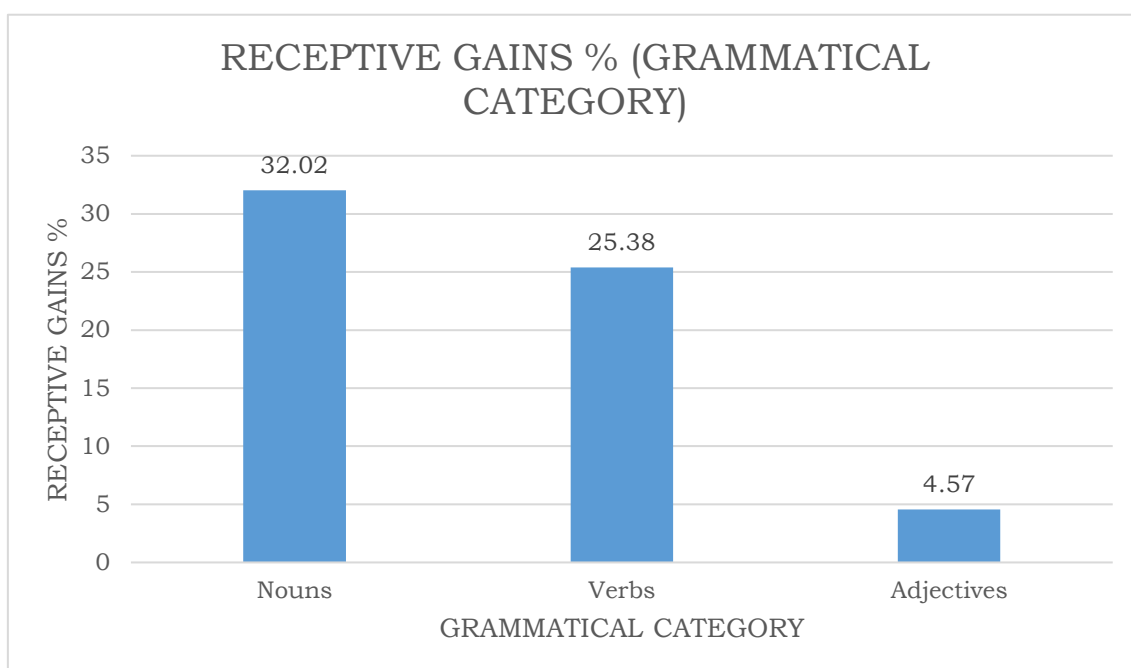


Figure 8: Receptive gains by grammatical category

The grammatical category that appears to be better acquired receptively are nouns (32.02%), such as *hayride*, *orchard* and *maze*, followed by verbs (25.38%) – for example *range*, *wrap* and *craft* – and adjectives (4.57%), such as *underway*, *budding* and *thriving* –.

As far as *type of word* is concerned, we have different degrees of receptive acquisition depending on this variable. In this light, *technical words* (1) seem to have higher receptive gains than *low frequency words* (4), followed by *high frequency words* (3) and, finally, *academic words* (2), as displayed in Figure 9.

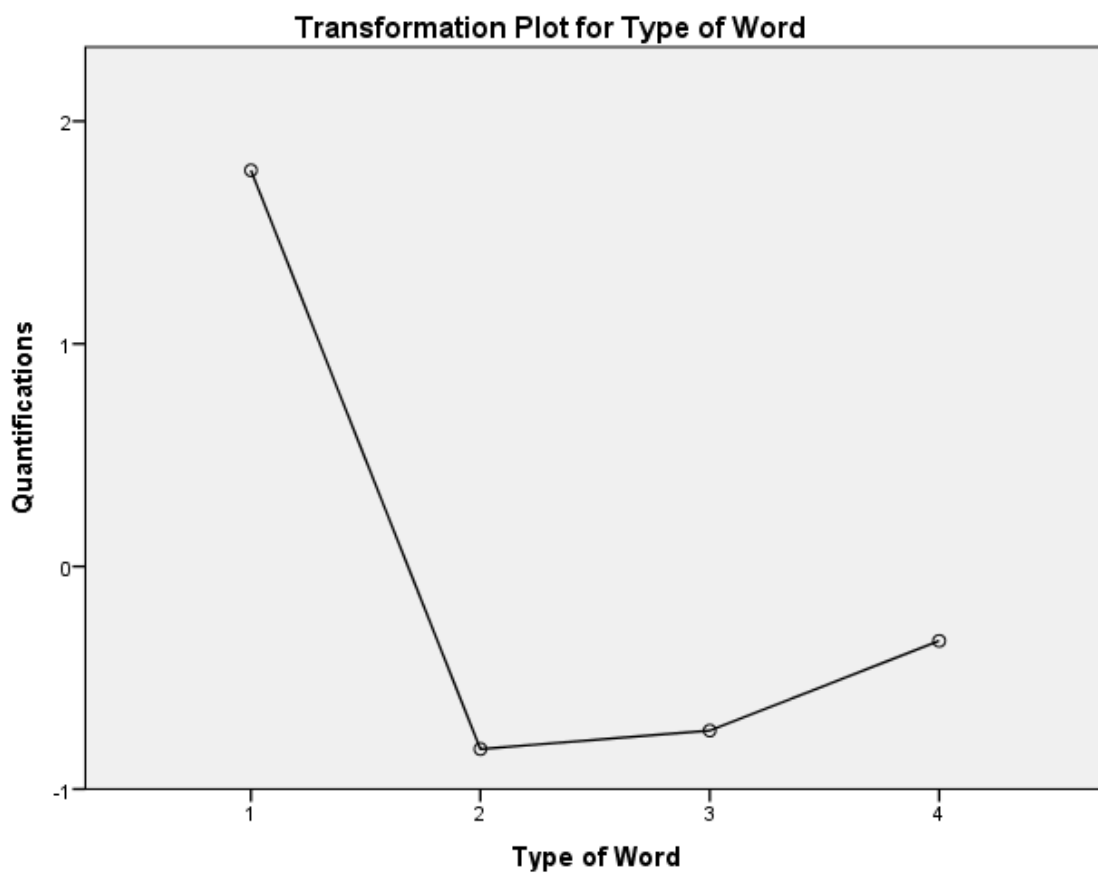


Figure 9: Transformation Plot for type of word

In Table 31 and Figure 10, we can see the gains, percentages and standard deviation based on the type of word. See *Appendix L* for the classification of words according to their type.

Table 31: Receptive gains according to type of word

TYPE OF WORD	RECEPTIVE GAINS	RECEPTIVE GAINS % (out of the total they could get)	STANDARD DEVIATION
Technical	30	36.59	25.1461641
Academic	2	4.97	11.363126
High frequency words	13	11.99	41.0018164
Low frequency words	29	19.02	13.7909192

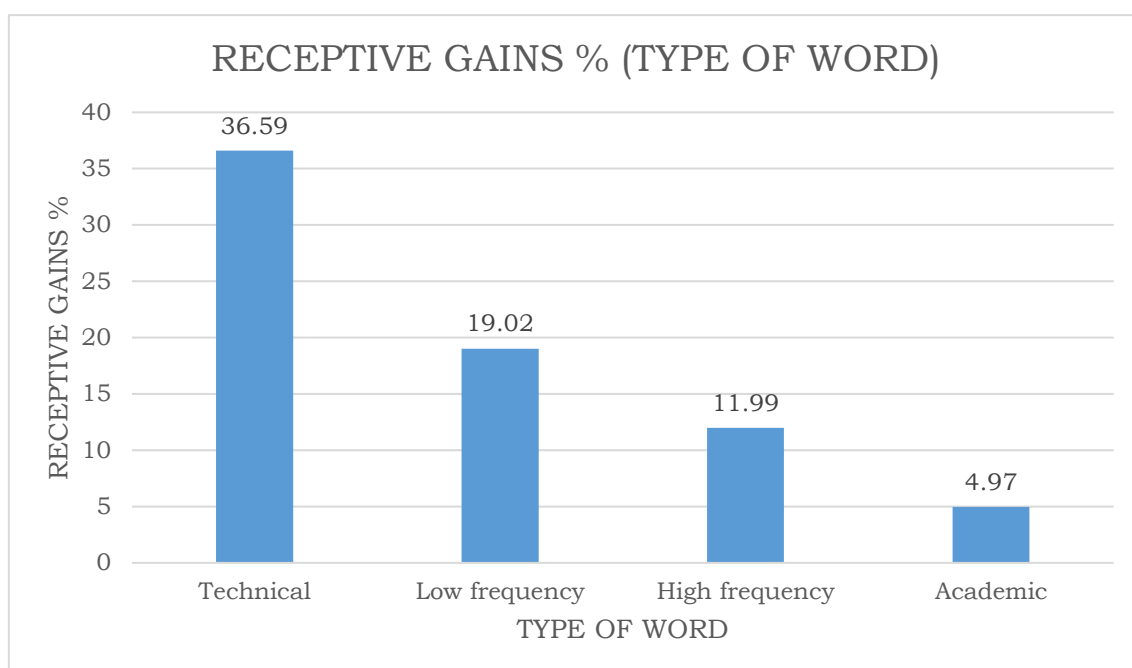


Figure 10: Receptive gains by type of word

As we can observe, *technical words* (36.59%), such as *crop*, *statewide* and *oversee* – seem to have a noticeable higher degree of receptive acquisition



than the other types of word: *low frequency words* (19.02%), for example *maze*, *quirky* and *encompass*, *high frequency words* (11.99%), such as *wrap*, *craft* and *outline*, and *academic words* (4.97%), for instance *comprehensive*, *pose* and *range*.

### 6.7. Variables explaining productive gains

In order to answer research question number 3, a CATREG – Categorical Regression – was used to find out the influence of the following variables on productive vocabulary gains – *type of word*, *number of exposures* (number of times each word appeared in the texts), *grammatical category*, *deducibility from context* and *length*.

There were four factor levels for *type of word* (technical, academic, high frequency and low frequency); ten levels for *number of exposures* (5, 6, 7, 8, 9, 10, 13, 14, 20 and 23 repetitions), three levels for *grammatical category* (noun, adjective and verb), two levels for *deducibility from context* (can and can't be deduced from context) and there were four levels for *length* (one syllable, two syllables, three syllables and four syllables).

As can be seen in Table 32, regression with optimal scaling yielded an  $R^2$  of 0.46, indicating that 46 percent of the variance in the transformed vocabulary gain was explained by two of the transformed predictors: *grammatical category* and *type of word*. The other three variables – *deducibility from context*, *number of exposures* and *length* – did not seem to account for variance in vocabulary gains.

Table 32: Productive gains: Model Summary

Multiple R	R Square	Adjusted R Square	Apparent Prediction Error
.682	.466	.354	.534

<sup>3</sup>Dependent Variable: Productive gains

Predictors: Grammatical category, Type of word

The analysis of variance reported in Table 33 shows an *F* statistic of 3.378 with  $p < 0.05$  which, together with  $R^2$ , indicate that the model performed well.

Table 33: Productive gains: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	12.391	5	2.478	3.378	.019
Residual	17.609	24	.734		
Total	30.000	29			

Dependent Variable: Productive gain

Predictors: Word category, Type of word

---

<sup>3</sup> Predictors: grammatical category (1: nouns, 2: adjectives, 3: verbs), type of word (1: technical, 2: academic, 3: high frequency, 4: low frequency)

Based on the overall  $F$  statistic, we can reject the null hypothesis that there is no linear relationship between the transformed predictors and the transformed response.

By inspecting the partial correlation coefficients, the partial correlation coefficients and the  $F$  test for each variable (see Table 34 and Table 35), it can be concluded that *type of word* is the variable in the model that best predicts receptive vocabulary gains. It is worth remembering that the squared partial correlation of each of these predictors indicates the proportion of the variance in the response they explain if the effects of the other variables are removed. Going back to *type of word*, it has a partial correlation of 0.58 so it explains 33% of the variation in vocabulary gain if the effects of the other variables are removed.

The other variable – *grammatical category* – contributes to the model in a lower proportion, 0.45, accounting for 20% of the variation in vocabulary gain (after removing the effects of the other predictors), as shown in Table 34.

Table 34: Productive gains and variables: Coefficients

<b>Coefficients</b>					
	Standardized Coefficients		df	F	Sig.
	Beta	Bootstrap (1000) Estimate of Std. Error			
Word Category	.396	.139	2	8.062	.002
Type of Word	.550	.126	3	18.967	.000

Table 35: Productive gains and variables: Correlations and Tolerance

<b>Correlations and Tolerance</b>						
	Correlations			Importance	Tolerance	
	Zero-Order	Partial	Part		After Transformation	Before Transformation
Word Category	.337	.457	.394	.323	.989	.943
Type of Word	.508	.581	.547	.677	.989	.943

The high tolerance values for each of the two predictors, also displayed in Table 35, indicate that their value cannot be predicted well from the other independent variables and therefore they are all needed in the model.

Now, I turn to analyse the transformation plots (Figure 11 and Figure 13) and the mean gains, grouped by factor levels, in order to see the trends in each variable. As the transformation plot for *grammatical category* in Figure 11 shows, none of the levels of the transformed variable have been collapsed and they remain relatively homogeneously distributed, indicating that all the categories are needed to describe the response. Since the corresponding regression coefficient is positive, as we can observe in Figure 11 below, the words which were better acquired were the nouns (1), followed by the verbs (3) and the adjectives (2).

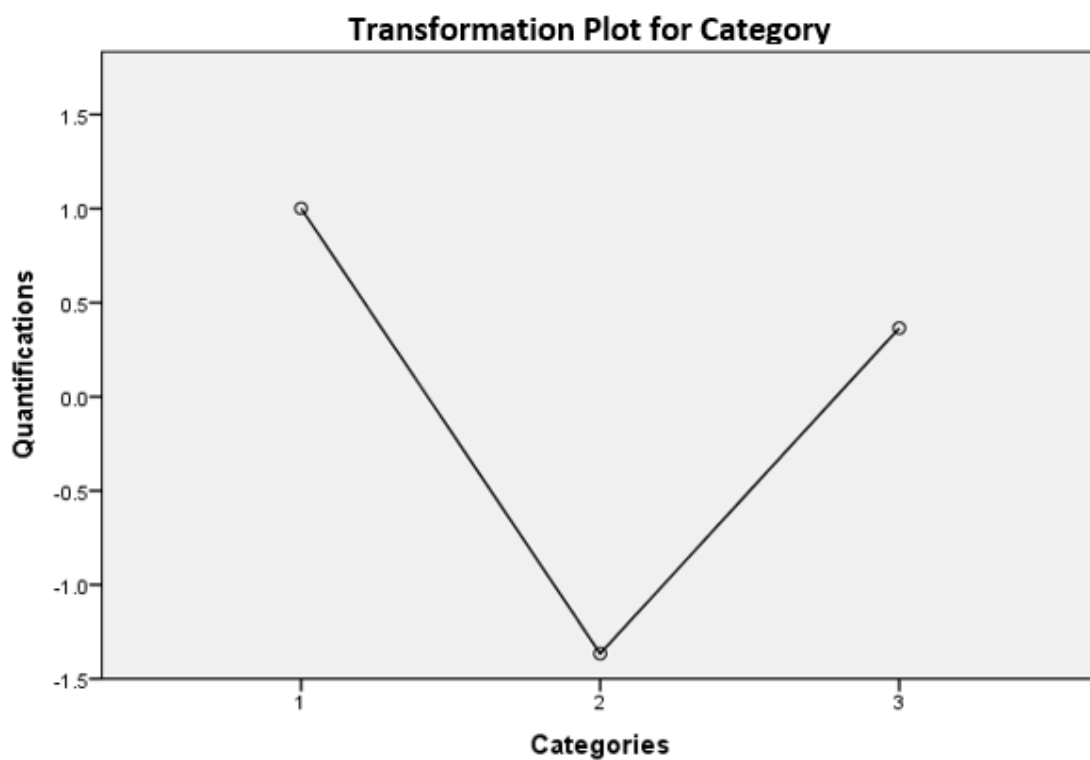


Figure 11: Transformation Plot for grammatical category

The distance between the transformed values for adjectives and verbs is smaller than the distance between the transformed values assigned to nouns and adjectives, indicating that nouns obtained much more gain than adjectives.

The gains, percentages and standard deviation for each of the three grammatical categories can be observed in Table 36 and Figure 12. See *Appendix J* for the classification of words according to their grammatical category.

*Table 36: Productive gains according to grammatical category*

GRAMMATICAL CATEGORY	PRODUCTIVE GAINS	PRODUCTIVE GAINS % (out of the total they could get)	STANDARD DEVIATION
Nouns	27	20.61	14.61
Adjectives	9	6.31	11.13
Verbs	23	19.68	26.66

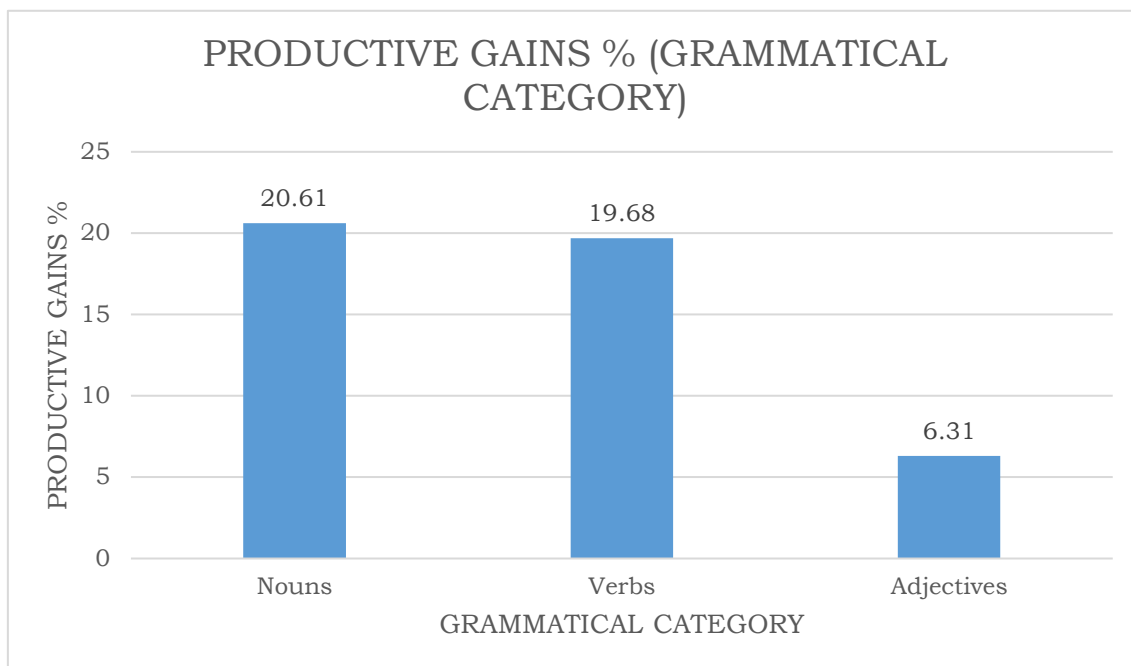


Figure 12: Productive gains by grammatical category

As in the case of receptive gains, the grammatical category that seems to have better scores concerning productive acquisition are nouns (20.61%), such as *crop*, *livestock* and *orchard*, followed by verbs (19.68%) – for instance, *wrap*, *supply* and *oversee* – and adjectives (6.31%), such as *comprehensive*, *former* and *current*. However, it is also remarkable that, whereas nouns and verbs got lower gains productively than receptively, adjectives got better scores in the productive gains than in the receptive (6.31% vs. 4.57%). Furthermore, it is worth mentioning the fact that the difference between the productive gains of nouns and verbs is smaller than in the case of the receptive gains (0.93% vs. 6.64%).

Regarding *type of word*, we have different degrees of productive acquisition. *Technical words* (1) seem to have higher receptive gains,

followed by *high frequency words* (3), *low frequency words* (4) and, finally, *academic words* (2). This can be appreciated in Figure 13.

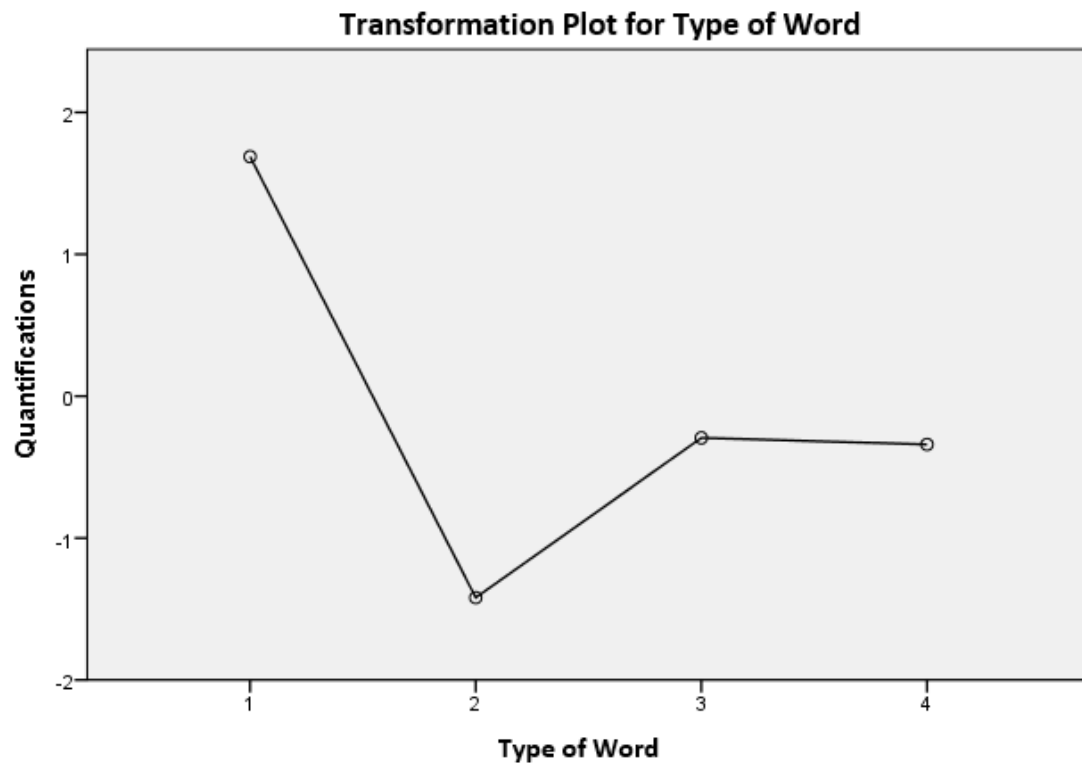


Figure 13: Transformation Plot for type of word

In Table 37 and Figure 14, we can see the gains, percentages and standard deviation based on the type of word. See *Appendix L* for the classification of words according to their type.



Table 37: Productive gains according to type of word

TYPE OF WORD	PRODUCTIVE GAINS	PRODUCTIVE GAINS % (out of the total they could get)	STANDARD DEVIATION
Technical	27	26.93	20.2574374
Academic	0	-0.39	7.742624447
High frequency words	11	13.68	26.686642
Low frequency words	21	13	11.8514666

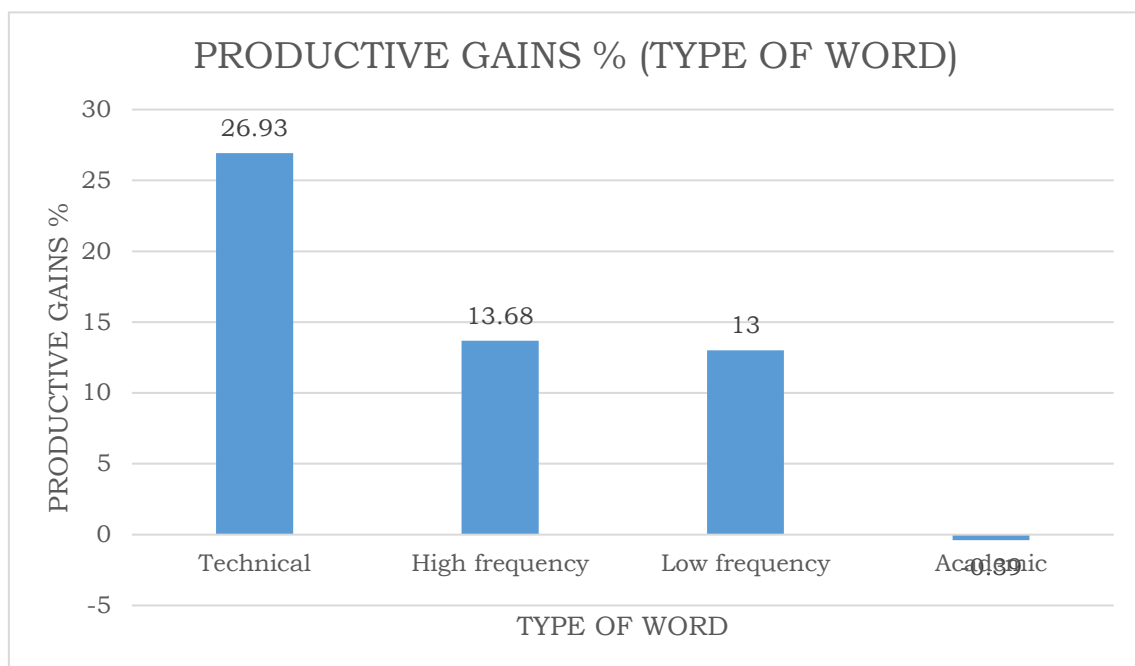


Figure 14: Productive gains by type of word

As we can appreciate, *technical words*, such as *crop*, *harvest* and *supply*, which showed 26.93% gain out of the total possible (i.e. if all *technical words* had been acquired productively), seem to have a clear higher degree of productive acquisition than the other types of word: *high frequency words* (13.68%), for instance *ripe*, *outline* and *sow*, *low frequency words* (13%), such as *hayride*, *venture* and *county*, and *academic words* (-0.39%), such as *comprehensive*, *pose* and *range*. It is worth mentioning the fact that *academic words* had negative gains, that is to say, students had some previous knowledge of some of the target words, but they did not seem to remember it after the treatment. It is interesting to highlight that the type of word better acquired both receptively and productively were *technical words*, such as *crop*, *harvest* and *statewide*, and the type of word which got lower receptive and productive scores were *academic words*, for instance *comprehensive*, *pose* and *range*. Nevertheless, whereas *low frequency words*, such as *hayride*, *livestock*, *tangy* and *underway*, were better learnt receptively than *high frequency words*, for instance, *current*, *sow* or *wrap*, in the case of productive vocabulary gains, *high frequency words* got better results.

## 6.8. Reading comprehension-Proficiency

Table 38 shows the mean and standard deviation of students' reading comprehension scores and their proficiency level.

*Table 38: Reading comprehension-Proficiency: Mean and Standard Deviation*

VARIABLE	MEAN	STANDARD DEVIATION
Reading comprehension	56.64	6.38
Proficiency	62.35	12.42

In order to answer research question number 4, namely to what extent reading comprehension skills are related to proficiency, a Pearson correlation was computed to assess this relationship. The findings revealed that there was a significant correlation between the two variables ( $r = 0.485^*$ ,  $n = 14$ ,  $p = 0.039$ ), as observed in Table 39 below. That is to say, students with a higher level of proficiency had better scores in the comprehension of the texts.

Table 39: Reading comprehension-Proficiency Correlation

		reading comp out of 90 total	PROF_opt
reading comp out of 90 total	Pearson Correlation	1	.485*
	Sig. (1- tailed)		.039
	N	14	14
PROF_opt	Pearson Correlation	.485*	1
	Sig. (1- tailed)	.039	
	N	14	14

\*. Correlation is significant at the 0.05 level (1-tailed).

Figure 15 displays the linear relation between these two variables.

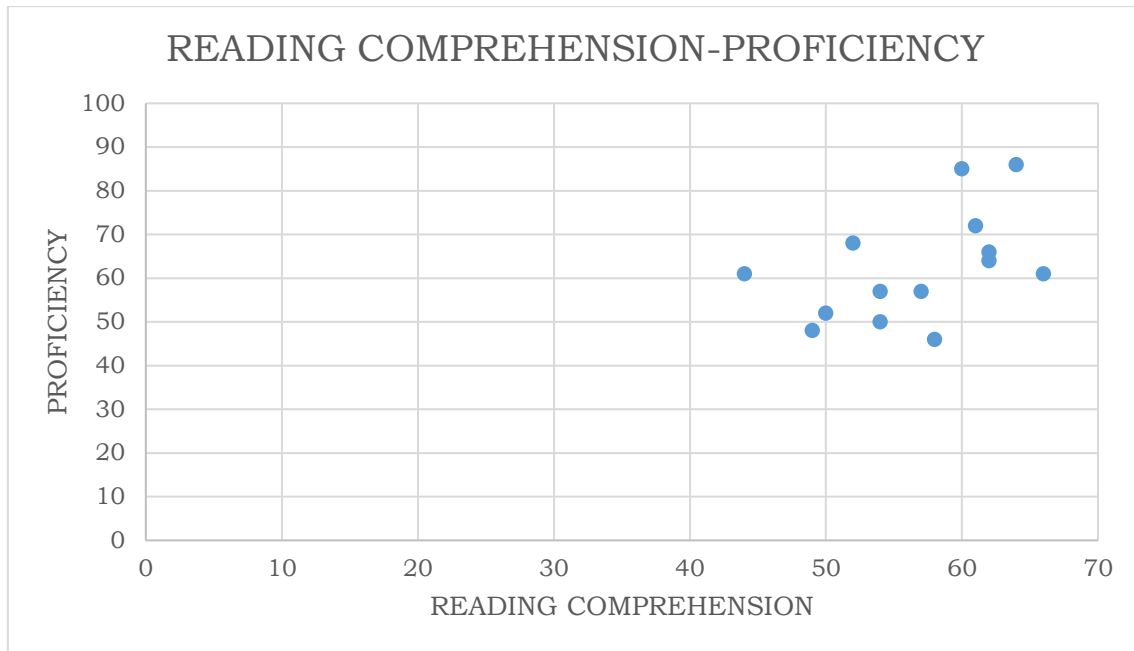


Figure 15: Reading comprehension-Proficiency

### 6.9. Reading comprehension-Posttest

Table 40 displays the mean and standard deviation of students' reading comprehension scores and their results in the posttest.

Table 40: Reading comprehension-Posttest: Mean and Standard Deviation

VARIABLE	MEAN	STANDARD DEVIATION
Reading comprehension	56.64	6.38
Posttest	16.07	9.47

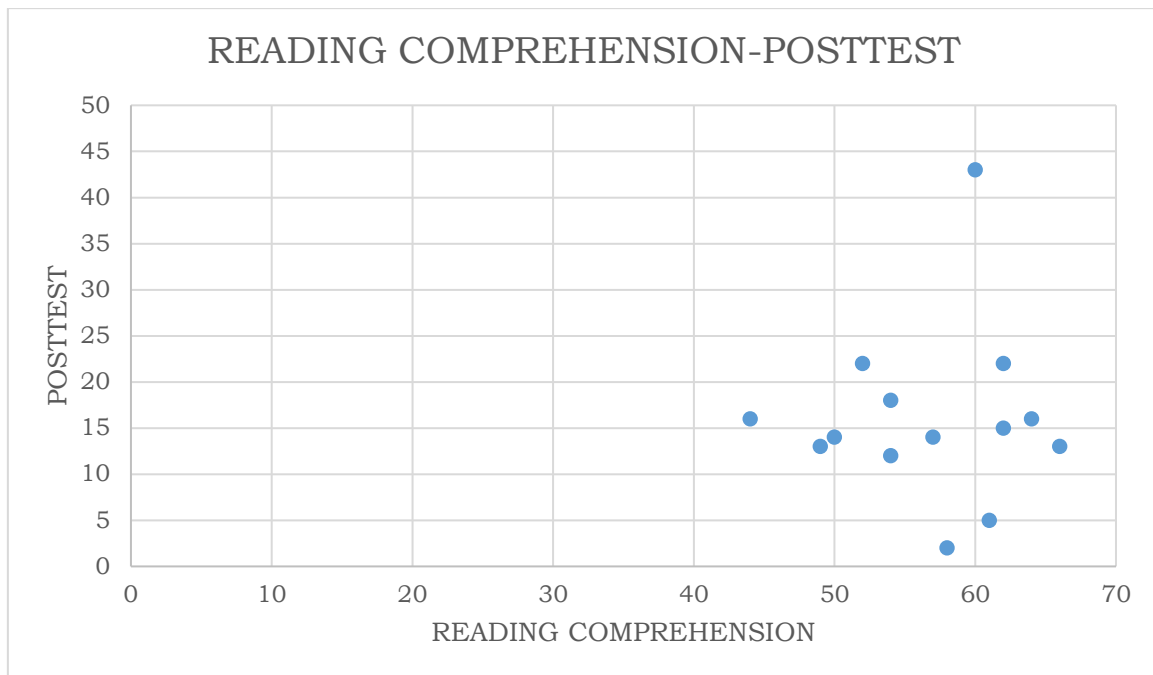
In order to answer research question number 4, that is to say, to what extent reading comprehension skills are related to vocabulary learning

through narrow reading, a Pearson correlation was performed to assess this relationship. The findings showed that there was no significant correlation between the two variables ( $r = 0.045$ ,  $n = 14$ ,  $p = 0.879$ ), as shown in Table 41 below. Apparently, whether students understood the texts better did not mean that they got better results in the posttest.

*Table 41: Reading comprehension-Posttest Correlation*

<b>Correlations</b>			
		POSTTEST	reading comp out of 90 total
POSTTEST	Pearson Correlation	1	.045
	Sig. (2-tailed)		.879
	N	14	14
reading comp out of 90 total	Pearson Correlation	.045	1
	Sig. (2-tailed)	.879	
	N	14	14

Figure 16 reveals the no linear relation between these two variables.



*Figure 16: Reading comprehension-Posttest*

### 6.10. Receptive vocabulary test-Gains

Table 42 shows the mean and standard deviation of students' receptive vocabulary test scores and their gains.

*Table 42: Receptive vocabulary test-Gains: Mean and Standard Deviation*

VARIABLE	MEAN	STANDARD DEVIATION
Receptive vocabulary test	8,114	1.17
Gains	9.5	5.34

With the aim of seeing general trends, students were grouped according to their scores in the receptive vocabulary test and their vocabulary mean gains (%) was calculated, as we can observe in Table 43 and Figure 17.

*Table 43: Students' scores in the receptive vocabulary test and gains*

RECEPTIVE VOCABULARY TEST SCORES (out of 14,000)	TOTAL GAINS	GAINS MEAN % (out of the total they could get)
From 6,000 to 7,000	24	10.74
From 7,000 to 8,000	31	18.32
From 8,000 to 9,000	55	30.15
From 9,000 to 10,000	23	14.28



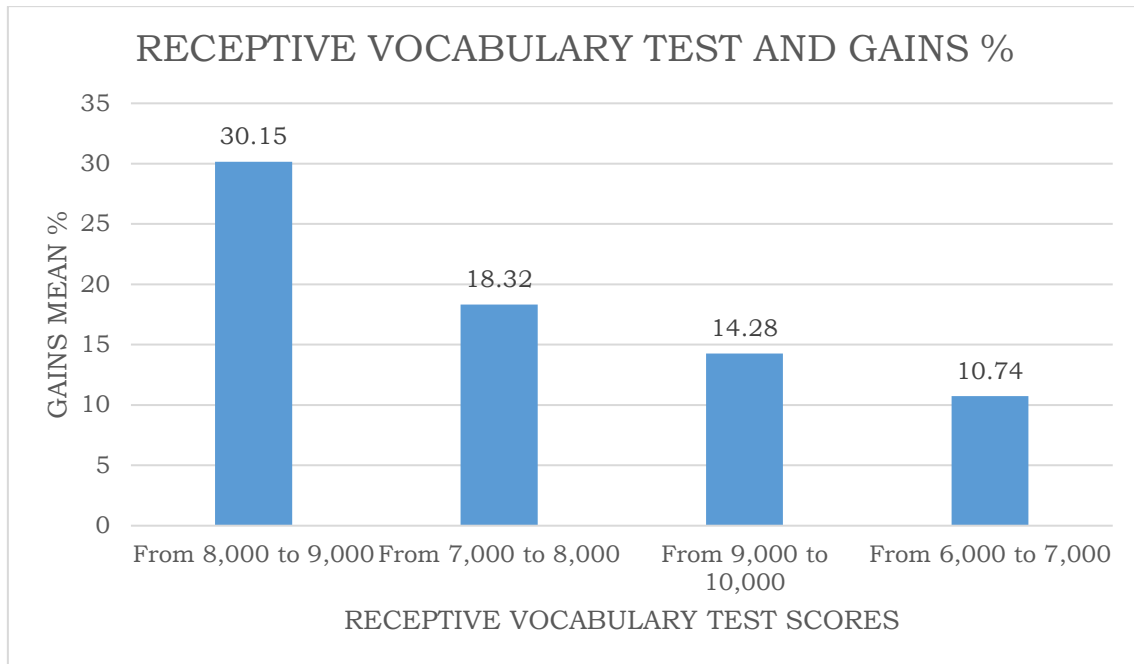


Figure 17: Receptive vocabulary test and gains

In order to answer research question number 5, that is to say, to what extent students with higher receptive vocabulary knowledge acquire more vocabulary than those with a lower level, a Pearson correlation was computed to analyse this relationship. The findings suggested that there was no significant correlation between the two variables ( $r = 0.216$ ,  $n = 14$ ,  $p = 0.229$ ), as observed in Table 44 below. In other words, students who knew more words receptively did not appear to achieve higher gains. As expected, those students with low receptive vocabulary (*from 6,000 to 7,000 level*) gained the least (10.74%). However, it is interesting the fact that the group of students who acquired more vocabulary (30.15%) did not get the highest scores in the receptive test (*from 8,000 to 9,000 level*). In addition, those participants with the best scores in the test (*from 9,000 to 10,000 level*) were in the third position of the gains (14.28%), whereas

those with the second lowest scores in the test (*from 7,000 to 8,000 level*) got the second best results in the vocabulary gains (18.32%).

*Table 44: Receptive vocabulary test-Gains Correlation*

		<b>Correlations</b>	
		Receptive	GAIN
Receptive	Pearson Correlation	1	.216
	Sig. (1-tailed)		.229
	N	14	14
GAIN	Pearson Correlation	.216	1
	Sig. (1-tailed)	.229	
	N	14	14

Next, we can find Figure 18 showing that there does not appear to be a linear relation between these variables.

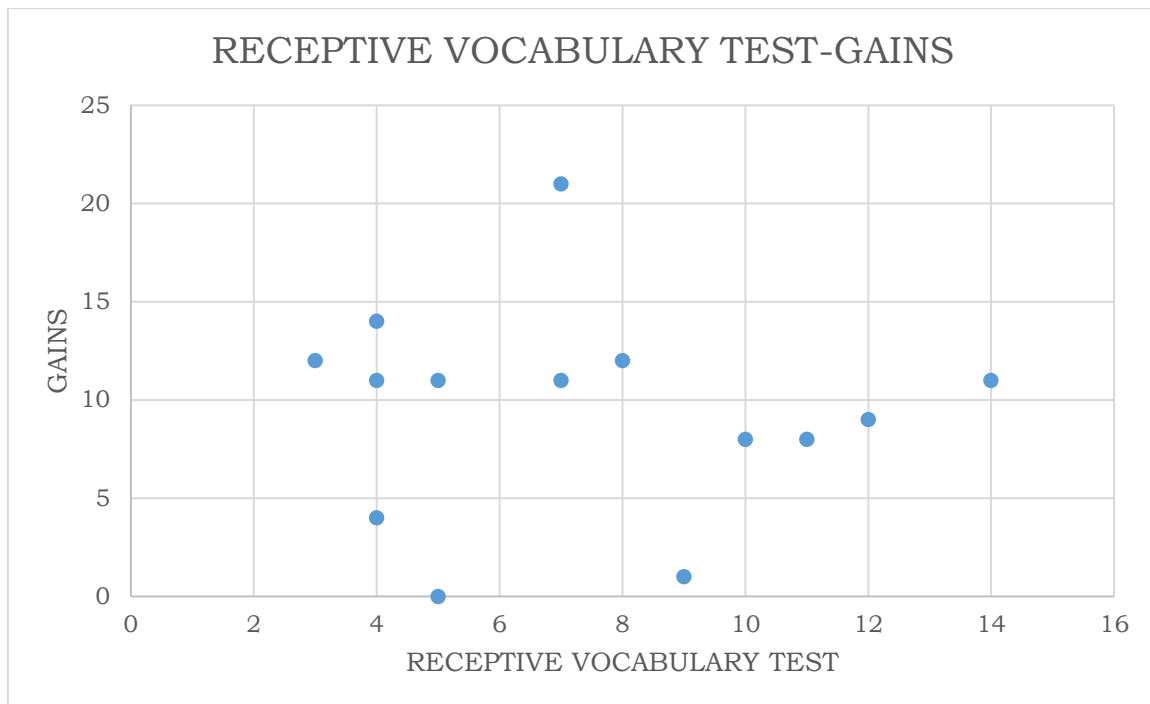


Figure 18: Receptive vocabulary test-Gains

### 6.11. Productive vocabulary test-Posttest

As stated previously, a minimum of 15 correct answers out of 18 is necessary to reach the level of mastery of each of the levels (Read, 2000). Surprisingly, none of the students reached that number in the first level (2,000 level) and the results seemed to be worse as difficulty increased. Thus, it is only worth discussing the relationship between the students' productive knowledge at this first level and their scores in the posttest. In Table 45 and Table 46, we can find the students' productive vocabulary test results and their scores in the posttest, as well as the mean and standard deviation of these variables.

*Table 45: Students' scores in the productive vocabulary test and gains*

STUDENTS	PRODUCTIVE VOCABULARY TEST SCORES: 2,000 LEVEL (out of 18)	POSTTEST (out of 60)
Student 1	11	12
Student 2	10	16
Student 3	4	15
Student 4	3	14
Student 5	9	5
Student 6	5	22
Student 7	7	16
Student 8	7	43
Student 9	4	13
Student 10	5	2
Student 11	14	14
Student 12	12	22
Student 13	8	18
Student 14	5	13

*Table 46: Productive vocabulary test-Posttest: Mean and Standard Deviation*

VARIABLE	MEAN	STANDARD DEVIATION
Productive vocabulary test	7.35	3.43
Posttest	16.07	9.47

In order to answer research question number 5, that is to say, to what extent students with higher productive vocabulary knowledge acquire more vocabulary than those with a lower level, a Pearson correlation was computed to analyse the relationship between students' general productive vocabulary knowledge – as measured by Tom Cobb's adaptation, version C, (2000), of Laufer and Nation's Vocabulary Levels Test (1999) – and their scores after the experiment. The findings showed that there was no significant correlation between the two variables ( $r = 0.03$ ,  $n = 14$ ,  $p = 0.90$ ), as can be seen in Table 47. In other words, it can be claimed that mastering the 2,000 level of words productively does not lead to a better vocabulary acquisition of the target words.

Table 47: Productive vocabulary test-Posttest Correlation

		Correlations	
		POSTTEST	Productive
POSTTEST	Pearson Correlation	1	.037
	Sig. (2-tailed)		.900
	N	14	14
Productive	Pearson Correlation	.037	1
	Sig. (2-tailed)	.900	
	N	14	14

As can be seen in Figure 19, there is no linear relation between the variables.

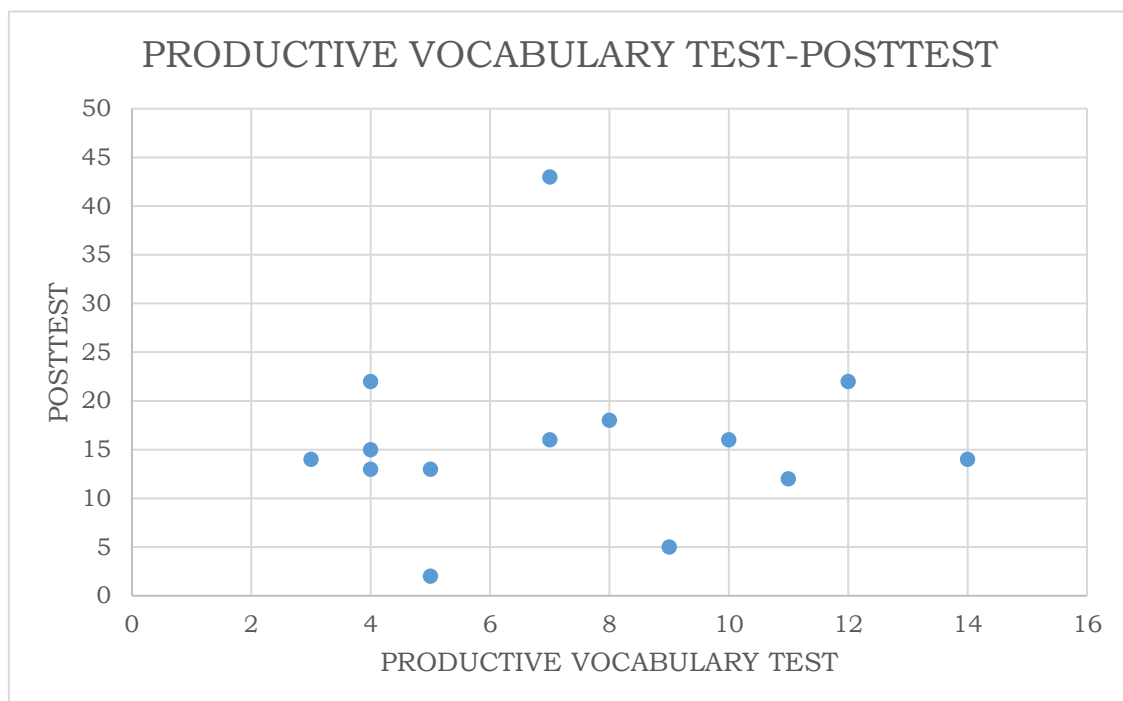


Figure 19: Productive vocabulary test-Posttest

### 6.12. Receptive vocabulary test-Proficiency

We can see the mean and standard deviation of students' scores in the receptive vocabulary test and their level of proficiency in Table 48.

*Table 48: Receptive vocabulary test-Proficiency: Mean and Standard Deviation*

VARIABLE	MEAN	STANDARD DEVIATION
Receptive vocabulary test	8,114	1.17
Proficiency	62.35	12.42

In order to answer research question number 6, that is to say, to what extent students' general receptive vocabulary knowledge is related to proficiency, a Pearson correlation was computed. The findings revealed that there was a significant correlation between the two variables ( $r = 0.615^*$ ,  $n = 14$ ,  $p = 0.010$ ), as displayed in Table 49. That is to say, the higher students' receptive vocabulary knowledge, the higher level of proficiency.

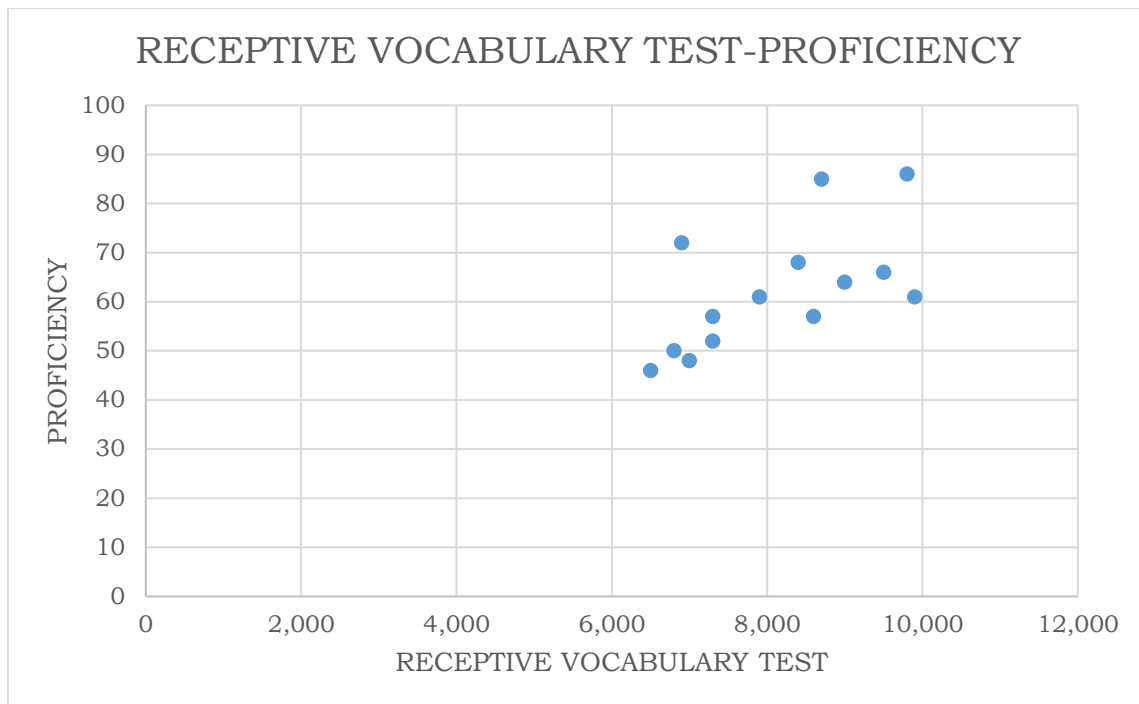
Table 49: Receptive vocabulary test-Proficiency Correlation

		Receptive	PROF_opt
Receptive	Pearson Correlation	1	.615**
	Sig. (1-tailed)		.010
	N	14	14
PROF_opt	Pearson Correlation	.615**	1
	Sig. (1-tailed)	.010	
	N	14	14

\*\* . Correlation is significant at the 0.01 level (1-tailed).

The scatterplot displayed in Figure 20 below illustrates this significant linear relation.





*Figure 20: Receptive vocabulary test-Proficiency*

### 6.13. Receptive vocabulary test-Pretest

Table 50 below displays the mean and standard deviation of students' scores in the receptive vocabulary test and in the pretest.

*Table 50: Receptive vocabulary test-Pretest: Mean and Standard Deviation*

VARIABLE	MEAN	STANDARD DEVIATION
Receptive vocabulary test	8,114	1.17
Pretest	6.57	5.46

In order to answer research question number 6, namely to what extent students' general receptive vocabulary knowledge is related to previous knowledge of the target words as revealed in the pretest, a Pearson correlation was carried out. The findings showed that there was a significant correlation between the two variables ( $r = 0.470^*$ ,  $n = 14$ ,  $p = 0.045$ ), as shown in Table 51. In other words, the vocabulary they knew receptively seems to be related to what they knew in the pretest. As the scatterplot in figure 7 illustrates, those students who showed greater receptive knowledge of the 140 words in the Vocabulary Size Test, also had better knowledge of the target words before the experiment took place.

Table 51: Receptive vocabulary test-Pretest Correlation

		<b>Correlations</b>	
		PRETEST	Receptive
PRETEST	Pearson Correlation	1	.470*
	Sig. (1- tailed)		.045
	N	14	14
Receptive	Pearson Correlation	.470*	1
	Sig. (1- tailed)	.045	
	N	14	14

\*. Correlation is significant at the 0.05 level (1-tailed).

Next, we can find Figure 21 showing the linear relationship between these variables.

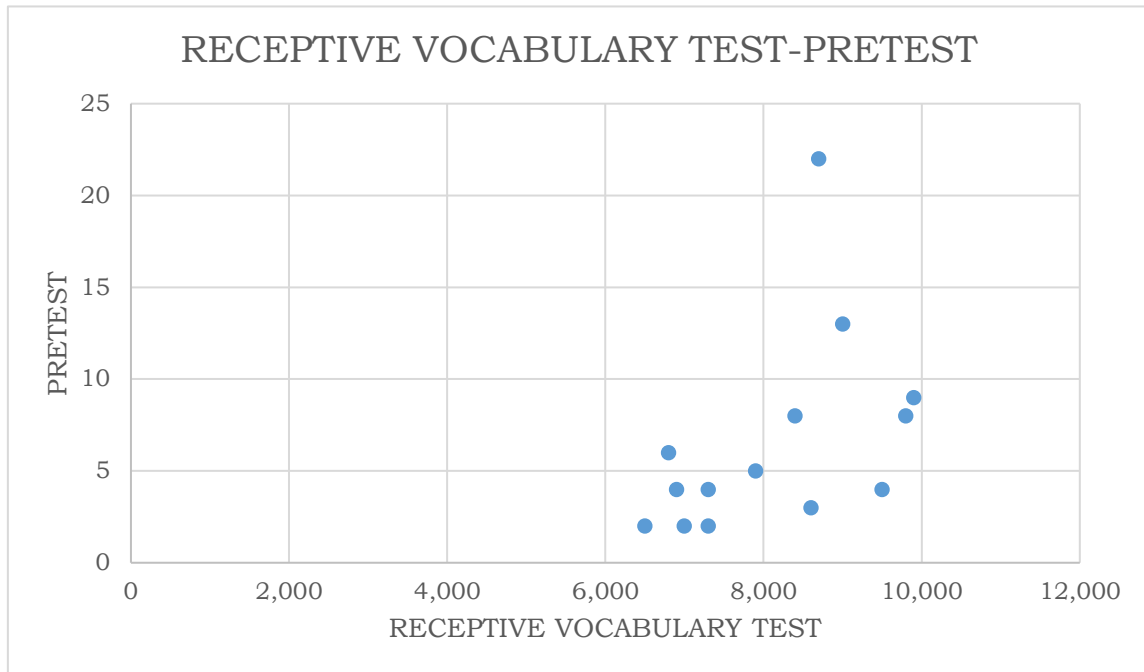


Figure 21: Receptive vocabulary test-Pretest

#### 6.14. Questionnaire

Table 52 shows the results of the questionnaire, in which the participants of the study reflected their feelings about narrow reading, and their vocabulary gains. In the questionnaire, each student could get a maximum of 9 points. The higher their scores, the better feelings about narrow reading and its effect on vocabulary learning and reading comprehension skills.

Table 52: Students' scores in the questionnaire and gains

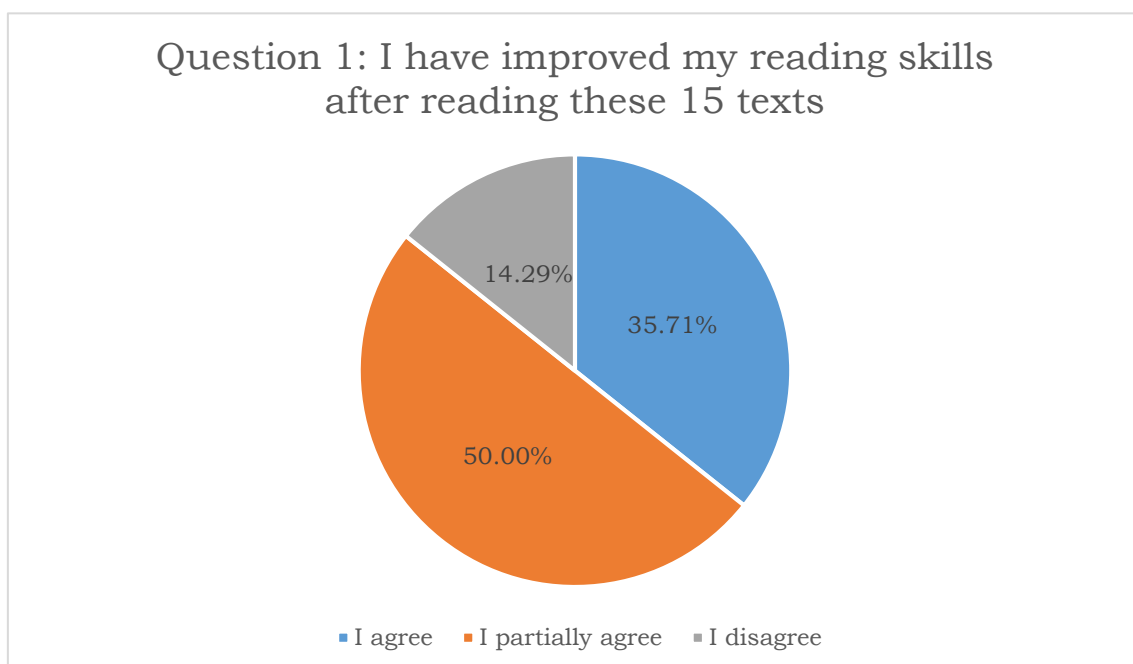
STUDENTS	QUESTIONNAIRE (out of 9)	GAINS	GAINS % (out of the total they could get)
Student 1	6	8	14.29
Student 2	5	8	15.38
Student 3	7	11	19.64
Student 4	9	12	20.69
Student 5	5	1	1.79
Student 6	5	14	26.92
Student 7	5	11	20
Student 8	4	21	55.26
Student 9	3	4	7.84
Student 10	7	0	0
Student 11	6	11	19.30
Student 12	8	9	19.15
Student 13	5	12	22.22
Student 14	8	11	18.97

In order to find out a general trend concerning students' opinions about the experiment, an individual analysis of each of the questions was carried out.

Question 1: I have improved my reading skills after reading these 15 texts.

*Table 53: Results of question 1*

QUESTION 1	% (out of the total number of students)
I agree	35.71
I partially agree	50.00
I disagree	14.29



*Figure 22: Results of question 1*

As we can see in Table 53 and Figure 22, half of the students seem to think that narrow reading can be a good technique for improving their reading skills but with certain limitations, as they pointed out in the open questions. In addition, if we focus on the other remaining half, we can observe that 35.71% of the total firmly believe that narrow reading had positive effects on their comprehension. Finally, a low percentage of the students (14.29%) appears to have negative feelings towards narrow reading as a method for improving their reading skills.

Question 2: I prefer reading texts about the same topic rather than read unrelated texts.

*Table 54: Results of question 2*

QUESTION 2	% (out of the total number of students)
I agree	14.29
I partially agree	21.42
I disagree	64.29

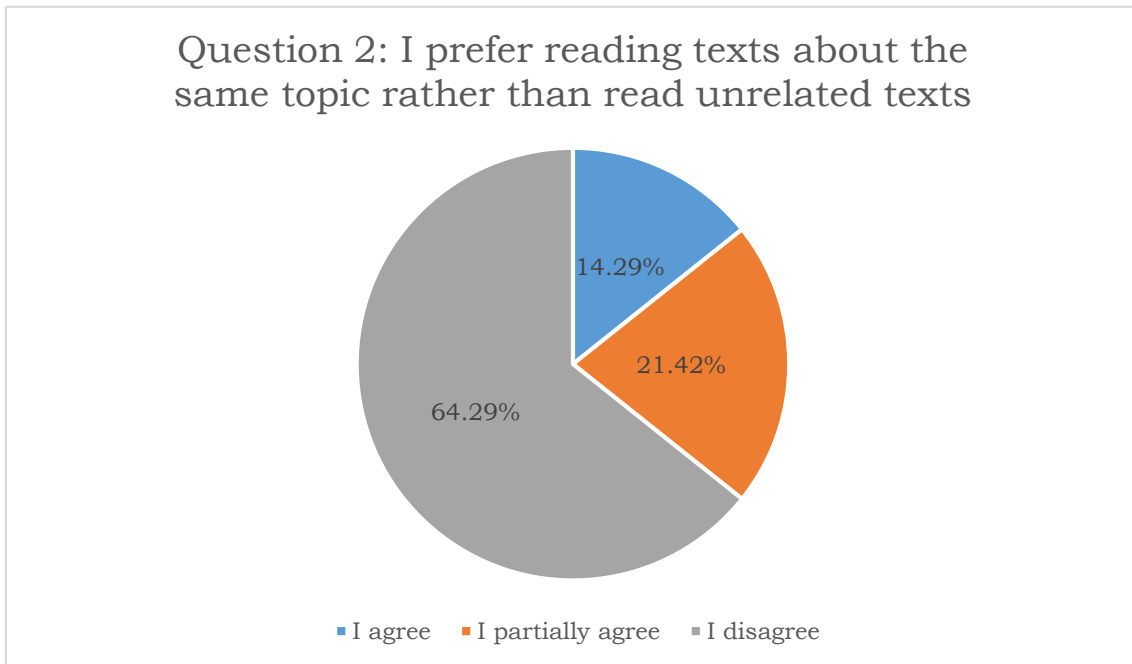


Figure 23: Results of question 2

As we can appreciate in Table 54 and Figure 23, the most remarkable aspect to be taken into account is the fact that a high percentage of students (64.29%) prefers reading unrelated texts rather than texts about the same topic. The reasons students gave for their choice can be seen in Table 55.

Table 55: Answers and reasons for question 2

ANSWER	REASONS
I agree	<ul style="list-style-type: none"> <li>• Easier to learn more vocabulary</li> <li>• Learn new specific vocabulary, it can be applied to the Tourism degree</li> </ul>

I partially agree	<ul style="list-style-type: none"> <li>• Good way to learn new vocabulary, but it is sometimes boring</li> <li>• Useful, but boring, prefer different texts to read about new things</li> <li>• You can learn more about a topic, but a bit boring</li> </ul>
I disagree	<ul style="list-style-type: none"> <li>• Boring and tiring</li> <li>• Helps you improve your vocabulary, but it is more interesting to read about other topics</li> <li>• Prefer variation to know more vocabulary</li> <li>• Interesting to read a variety of texts</li> <li>• Tired of reading the same, prefer a variety of topics</li> <li>• Don't like the topic, not interesting</li> <li>• Prefer variety: more interesting and better to learn more vocabulary</li> <li>• Boring, prefer variety to learn about other topics</li> <li>• Boring, end up tired and less enthusiastic</li> </ul>



Question 3: I find reading texts on the same topic, like Agritourism, helpful for vocabulary acquisition.

Table 56: Results of question 3

QUESTION 3	% (out of the total number of students)
I agree	35.71
I partially agree	50.00
I disagree	14.29

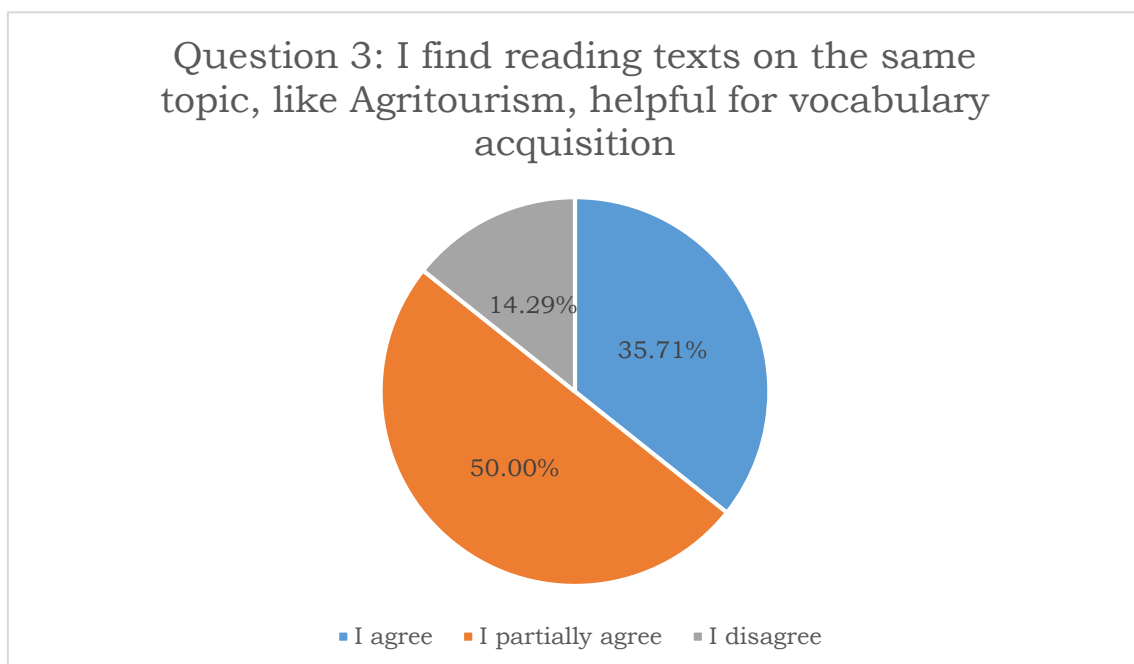


Figure 24: Results of question 3

As Table 56 and Figure 24 show, half of the students seem to think that narrow reading can be a good technique for learning the vocabulary of a

specific field but with certain limitations, as they pointed out in the open questions. In addition, if we focus on the other remaining half, we can observe that 35.71% of the total seems to show positive feelings about narrow reading as a method for vocabulary acquisition. Finally, a low percentage of the students (14.29%) appears to have negative feelings about narrow reading as a method for improving their vocabulary knowledge.

#### Question 4: Any further comments

The last question was optional and only 5 students answered it. Their comments were the following:

- Despite the repetition of words along the texts, it is necessary a translation or explanation in some cases because the context is not enough (it is a bit frustrating sometimes not to be able to guess the meaning).
- Interesting, because it is an unknown topic, you learn new vocabulary, but I prefer other topics.
- Other topics would be more useful in everyday use.
- Boring, need for motivating topics, prefer books rather than these texts.
- Prefer more variety of topics.

## 7. DISCUSSION AND CONCLUSIONS

The experiment carried out in this thesis provides evidence that narrow reading can be considered a source of second language vocabulary acquisition in those university contexts in which EMI programmes are implemented.

### Effectiveness of narrow reading for L2 vocabulary learning

The T-Test conducted in order to find out how effective narrow reading is for vocabulary learning in the university context revealed that there was a significant difference in the scores for the pretest ( $M = 6.57$ ,  $SD = 5.45$ ) and the posttest ( $M = 16.07$ ,  $SD = 9.46$ );  $t(13) = -6.64$ ,  $p = 0.000$ ). In other words, narrow reading appears to have a positive effect on increasing students' vocabulary knowledge.

These findings seem to support previous research on the influence of narrow reading on vocabulary learning, as is the case of Min's (2008). The results of this investigation suggest that the two types of instruction analysed – reading plus vocabulary enhancement activities and narrow reading – had a positive impact on students' lexical knowledge of the target words, even though both the receptive and productive gains concerning the first method were higher. A similar investigation by Khamesipour (2015) also highlighted the usefulness of narrow reading on vocabulary learning. In this case, explicit (giving the definitions of the words before reading the texts) and implicit (through narrow reading)

techniques were implemented. The findings suggested that both approaches appeared to have a positive effect on vocabulary learning, but students got better scores when they were taught vocabulary through narrow reading. Moreover, narrow reading also improved students' vocabulary acquisition in an experiment carried out by Sinta (2012), as they acquired many words that they did not know before the treatment.

The difference between the above mentioned studies and the present study is the academic context in which they were carried out, as the participants of my thesis belonged to an EMI programme, whereas the others were high school students and university students who were not enrolled in this type of instruction. In addition, my students had to cover a greater number of texts (15), as opposed to the other participants, who had to read between 4 and 12 texts. I modified the texts slightly so that they complied with certain conditions regarding the target words. Moreover, the participants of my experiment did truly narrow reading, as they just read the texts without the help of any source.

### **Gains per word**

Focusing on the vocabulary gains per word, students seem to have vocabulary gains in 24 out of the 30 target words. I studied some of the students who were absent for some of the texts and used them as controls, and they did not show improvement for the words in the texts they did not read. The fact that the texts were about the same topic seem to have facilitated the acquisition of these 24 words, since it is claimed that if the word appears in a context of related topics, learners will be

more likely to acquire it than if it appears in different contexts (Crossley et al., 2013 as cited in Dóczy & Kormos, 2016).

On the other hand, they did not acquire three words at all – *comprehensive*, *former* and *praise* – and, surprisingly, they lost some of the previous knowledge of other three words – *current*, *underway* and *pose* –. Interlanguage seems to function this way. This can be explained by the fact that the experiment lasted for three months and most of the exposures to these words took place at the beginning or in the middle of the experiment, so students rarely encountered these words during the last readings, which might have prevented them from obtaining higher gains for these words. In addition, as some of them stated in the open questionnaire, by reading so many texts, they might have lost some of their initial motivation and, therefore, not engage with the last sessions of the treatment as expected, nor with the last tests. These results seem to support the argument that “vocabulary growth is nonlinear and fluctuating and might be influenced by a number of environmental factors and the characteristics of the input that the learners receive” (Dóczy, & Kormos, 2016, p. 56). It is also worth mentioning the fact that maybe the students did not or could not successfully use the inferring strategies for guessing the meaning of the words. A study by Nassaji (2003) revealed that more than half of the times, students were not able to find out the meaning of the unknown words from context successfully; they could only guess the meaning of one out of four words; “the higher the proportion of unknown words in the surrounding context, the lower

the likelihood of success” (2003, p. 653). As Laufer claims, when students get the general idea of a given text, they do not try to find out the meaning of every single word, so it might occur that inferring meaning from context is not reliable because it does not offer the necessary information or because learners do not know the 98% of the words (2005). As Scott claims, “a high density of unknown words in a text obstructs incidental word learning” (2005, p. 76). In addition, in those cases in which word meanings can be inferred from context more easily, these words might not fulfil all the engagement conditions to be acquired and retrieved efficaciously (2005). In any case, it is crucial that the new words that students have come across in a text appear in subsequent readings so as not to be forgotten, but learners do not usually read as much as necessary for the words to be acquired (2005).

In relation to this, we might refer to the statement that “STM depends upon acoustic memory trace, with visually presented items being converted into an acoustic code by subvocalization” (Baddeley, 2007, p. 8). In this light, by reading alone the traces the words formed may have been less stable than if students had also listened to the words in lectures, all because of this acoustic encoding.

Going back to the target words of this study, it is also important to say that the two words with the highest gains are verbs: *wrap* (80%) and *supply* (68.75%). This is interesting because previous studies state that nouns are better acquired than adjectives, followed by verbs (Laufer, 1990). In addition, these two words, *wrap* and *supply*, have the lowest

degree of repetition across the texts, 5 times and 6 times, respectively, so it is surprising how the students had such great gains having been exposed to those words just a few times. It is worth mentioning that most of the repetitions of these two words took place in the last 5 readings, so this might have facilitated its acquisition. In addition, maybe the different contexts played a crucial role to successfully infer their meaning. In the case of *wrap*, it appears in sentences in which something is wrapped with paper, in which you can wrap something and give it to someone as a gift. Concerning *supply*, it is used in sentences in which someone supplies someone with food. Thus, the usefulness of the immediate contexts in both cases might have played a key role in guessing their meaning.

On the other hand, those words with no gains or whose knowledge was lost are all adjectives – *comprehensive* (0%), *former* (0%), *underway* (-3.85%) and *current* (-11.11) – and verbs – *praise* (0%) and *pose* (-3.70%) –. Hence, this also seems to support the claim that the grammatical category which has better results concerning vocabulary acquisition are nouns, as we will see more in depth later, when explaining how the grammatical category affected the learning of words.

It is interesting to see the percentage of words that were mainly learnt receptively and productively. First of all, 60% of the words were better learnt receptively than productively. Secondly, 6.66% of the words had better scores productively than receptively. Thirdly, 16.66% of the words got the same percentage of gains receptively and productively. Fourthly, 6.66% of the words had no receptive or productive gains at all.

Finally, 10% of the words got no gains (either receptively or productively) and some of their knowledge was lost (either receptively or productively). The low gains concerning productive acquisition can be explained by the fact that although vocabulary learning appears to occur incidentally by means of narrow reading, as research points out “it seems to be difficult to gain a productive level of mastery from just exposure” (Schmitt, 2008, p. 348).

### **Gains per student**

The data concerning vocabulary gains per student seems to suggest that they learnt vocabulary through narrow reading to a greater or lesser extent, except in the case of one of the participants, who did not acquire any of the words. Most of the students had similar vocabulary gains, but there is one particular case that is considerably above average and two subjects that are far from it, as their gains are very low. These results seem to coincide with those from a study by Nation and Beglar’s that investigated explicit and implicit learning of vocabulary. There were diverse degrees of vocabulary acquisition; some students improved considerably while some others had lower rates of learning (2007). This might be due to the influence of several factors on vocabulary acquisition, such as the linguistic characteristics of the words, the contexts in which they appear or the individual differences of the participants, which can be defined as “characteristics or traits in respect of which individuals may be shown to differ from each other” (Dörnyei, 2009, p. 181). Examples of individual differences are students’ motivation (affective characteristics of the learner), language aptitude (capacity and quality of learning),



learning styles (the way of learning) and learning strategies (students' selecting learning routes) (2009). The differences among individuals seem to lie in our genes; in other words, what we inherit genetically makes a substantial difference (2009). However, individual variation is not due to one factor standing out, but to all the factors working together and "the value of each component keeps changing depending on the overall state of the system and in response to external influences, making ID dynamic variables" (2009, p. 196).

As Parry sustains, "individuals may have significantly different strategies and these strategies may radically affect the way in which they learn new words" (1991, p. 649). In relation to this, it is interesting to make a reference to memory and vocabulary acquisition, as it is not the amount of time the information is stored in the working memory what makes it be transferred to the long-term memory, but the depth and richness of encoding, which might differ in each individual (Baddeley, 2007). Therefore, this variation regarding successful vocabulary learning might be explained by its complex nature, as there are numerous aspects that play their role in one way or another.

### Students' proficiency and vocabulary learning through narrow reading

The Pearson correlation carried out in order to analyse the relationship between students' level of proficiency and their results in the pretest suggested that there was a significant correlation between the two variables ( $r = 0.674^*$ ,  $n = 14$ ,  $p = 0.008$ ). That is to say, the higher level

of proficiency of the students, the better scores they got in the pretest. Hence, being highly proficient in English seemed to guarantee higher scores concerning the knowledge of the target words before the experiment.

Moreover, the Pearson correlation computed to analyse the relationship between students' proficiency and vocabulary learning through narrow reading shows that there was a significant correlation between the two variables ( $r = 0.556^*$ ,  $n = 14$ ,  $p = 0.039$ ). In other words, the students with high proficiency seemed to get better scores in the posttest, which means that they gained more vocabulary knowledge of the target words than those students with low proficiency.

## Variables explaining receptive gains

The CATREG – Categorical Regression – that was used to find out the influence of the following variables on receptive vocabulary gains – *type of word*, *number of exposures* (number of times each word appeared in the texts), *grammatical category*, *deducibility from context and length* – revealed that the *length*, *number of exposures* and *deducibility from context* variables did not contribute to the model. As Laufer sustains in reference to *word length*, “in a learning situation it is hard to attribute the difficulty of learning a particular word to its length rather than to a variety of factors” (Laufer, 1990, p. 298).

It is worth mentioning that sometimes, the importance of these factors such as the ones mentioned above, which finally had to be

excluded from the study, is explained by other of the factors, it does not mean these factors are not relevant to the learning of new words.

40 percent of the variance in the transformed vocabulary gain was explained by two of the transformed predictors: *grammatical category* and *type of word*. Both of them predict receptive vocabulary gains in a similar way. *Grammatical category* has a partial correlation of 0.520, so it explains 27% of the variation in vocabulary gain if the effects of the other variables are removed. On the other hand, *type of word* has a partial correlation of 0.529 – accounting for 28% of the variation in vocabulary gain, after removing the effects of the other predictors.

Focusing on *grammatical category*, the one that appears to be better acquired receptively are nouns (32.02%), such as *hayride*, *orchard* and *maze*. This may be due to the fact that most nouns are characterized by a high degree of concreteness, which facilitates the association of the word to an image and, consequently, the acquisition of that particular word, as in the case of L1 acquisition (Spahiu, 2013). However, whereas in other studies nouns are followed by adjectives and verbs (Laufer, 1990), in this experiment we find the opposite: verbs (25.38%) – for example *range*, *wrap* and *craft* –, had better scores than adjectives (4.57%), such as *underway*, *budding* and *thriving* –. A possible reason for this can be the number of syllables of these words. The adjectives tend to be longer, while most of the verbs are one-syllable words, which might have affected their acquisition. Moreover, most of the adjectives are fairly abstract, so, together with an increase in difficulty concerning the word-

image association, maybe the contexts in which adjectives appeared did not provide enough cues for the students to guess their meanings or students failed when putting into practice their guessing strategies with these words. For example, focusing on *comprehensive*, *current*, *former* and *underway*, which got low gains, they appear in sentences in which they just describe something as being comprehensive/underway or someone as being the current president or the former member. There is no further explanation of what these adjectives can mean and no clues available to try to guess their meanings.

According to Scott, “there seems to be no clear evidence that words in one category are learned more easily than words in another”, as different grammatical categories have higher gains in different studies (2005, p. 73). For instance, Robbins and Ehri got different results from the ones I had: verbs and adjectives were better learnt than nouns in their study (1994).

Regarding *type of word*, *technical words* (36.59%), such as *crop*, *statewide* and *oversee*, seem to have a noticeable higher degree of receptive acquisition than the other types of word: *low frequency words* (19.02%), for example *maze*, *quirky* and *encompass*, *high frequency words* (11.99%), such as *wrap*, *craft* and *outline*, and *academic words* (4.97%), for instance *comprehensive*, *pose* and *range*. It is worth mentioning the fact that, as opposed to what might be expected, *low frequency words* are better learnt than words whose frequency is higher (19.02% vs. 11.99%). Focusing on specific examples, the three *low frequency words* with higher

gains are: *livestock* (35.71%), *orchard* (32.14%) and *venture* (30%). This could be due to the fact that *low frequency words* in some contexts behave similarly to *technical words*, as the boundary is difficult to draw. Therefore, the particular frequency of a word which the students do not know does not always seem to affect the acquisition of the target words. These findings are opposed to the ones found in a previous study by Koirala, which showed that as frequency of the given words increased, difficulty to acquire them decreased (2015).

### Variables explaining productive gains

The CATREG – Categorical Regression – that was used to find out the influence of the following variables on productive vocabulary gains – *type of word*, *number of exposures* (number of times each word appeared in the texts), *grammatical category*, *deducibility from context and length* – showed that *deducibility from context*, *number of exposures* and *length* did not seem to account for variance in vocabulary gains.

46 percent of the variance in the transformed vocabulary gain was explained by two of the transformed predictors: *grammatical category* and *type of word*. The latter has a partial correlation of 0.58 so it explains 33% of the variation in vocabulary gain if the effects of the other variables are removed. The other variable – *grammatical category* – contributes to the model in a lower proportion, 0.45, accounting for 20% of the variation in vocabulary gain (after removing the effects of the other predictors).

In relation to *grammatical category*, as in the case of receptive gains, the grammatical category that seems to have better scores concerning productive acquisition are nouns (20.61%), such as *crop*, *livestock* and *orchard*, because of the same reasons provided in the previous section. However, whereas in other studies nouns are followed by adjectives and verbs (Laufer, 1990), in this experiment we find the opposite: verbs (19.68%) – for instance, *wrap*, *supply* and *oversee* – were learnt better productively than adjectives (6.31%), such as *comprehensive*, *former* and *current*. A possible reason for this can be that most of the adjectives are fairly abstract, so, together with an increase in difficulty concerning the word-image association, maybe the contexts in which adjectives appeared were not helpful enough to guess their meanings or students were not able to use guessing strategies successfully. As Schwanenflugel sustains, words' relative concreteness has a positive effect on students' gain scores in incidental word learning (1991). However, it is also remarkable that, whereas nouns and verbs got lower gains productively than receptively, adjectives got better scores in the productive gains than in the receptive (6.31% vs. 4.57%), although this difference is minimal. Furthermore, it is worth mentioning the fact that the difference between the productive gains of nouns and verbs is smaller than in the case of the receptive gains (0.93% vs. 6.64%).

As far as *type of word* is concerned, *technical words*, such as *crop*, *harvest* and *supply*, which showed 26.93% gain out of the total possible (i.e. if all *technical words* had been acquired productively), seem to have

a clear higher degree of productive acquisition than the other types of word: *high frequency words* (13.68%), for instance *ripe*, *outline* and *sow*, *low frequency words* (13%), such as *hayride*, *venture* and *county*, and *academic words* (-0.39%), such as *comprehensive*, *pose* and *range*. It is worth mentioning the fact that *academic words* had negative gains, that is to say, students had some previous knowledge of some of the target words, but they did not seem to remember it after the treatment. This negative side of *academic words* seems to be in accordance with an investigation carried out by Zheng, in which participants used the most frequent words productively in a higher percentage than *academic words*, which did not receive any attention by the students (2012). It is interesting to highlight that the type of word better acquired both receptively and productively were *technical words*, such as *crop*, *harvest* and *statewide*, and the type of word which got lower receptive and productive scores were *academic words*, for instance *comprehensive*, *pose* and *range*. Nevertheless, whereas *low frequency words*, such as *hayride*, *livestock*, *tangy* and *underway*, were better learnt receptively than *high frequency words*, for instance, *current*, *sow* and *wrap*, in the case of productive vocabulary gains, *high frequency words* got better results.

### Students' reading comprehension skills and proficiency

The Pearson correlation computed to find out to what extent reading comprehension skills are related to proficiency revealed that there was a significant correlation between the two variables ( $r = 0.485^*$ ,  $n = 14$ ,  $p = 0.039$ ). That is to say, students with a higher level of proficiency had

better scores in the comprehension of the texts. This seems to be supported by what Nation claims: “proficiency in L2 is a major factor in successful guessing” (2001, p. 247). Thus, those students having high proficiency seemed to perform better in their reading skills and, as a consequence, in meaning inferring strategies used for getting the general or specific ideas of the texts than those whose level of proficiency is lower.

### Students’ reading comprehension skills and vocabulary learning through narrow reading

The Pearson correlation used to assess the extent to which reading comprehension skills are related to vocabulary learning through narrow reading suggested that there was no significant correlation between the two variables ( $r = 0.045$ ,  $n = 14$ ,  $p = 0.879$ ). Apparently, whether students understood the texts better did not mean that they got better results in the posttest. In other words, those students who were the best at reading comprehension may not have necessarily got more involved in deducing the meaning of words from context than the other students. It is important to highlight that the comprehension questions did not focus on the parts of the texts that contained the target words so as not to make them focus artificially on the words. Students did not work intentionally on the meaning of the target words while answering the comprehension questions. Therefore, comprehension of many parts essential to the overall meaning of the text could not be measured, whereas others which were probably easier to process because of their lower range of crucial concepts and target words were the focus of some of the comprehension questions.



## Students' general receptive vocabulary knowledge (as measured by the Vocabulary Size Test) and vocabulary learning through narrow reading

The Pearson correlation computed to analyse to what extent students with higher receptive vocabulary knowledge acquire more vocabulary than those with a lower level showed that there was no significant correlation between the two variables ( $r = 0.216$ ,  $n = 14$ ,  $p = 0.229$ ). In other words, students who knew more words receptively did not appear to achieve higher gains. As expected, those students with low receptive vocabulary (*from 6,000 to 7,000 level*) gained the least (10.74%). However, it is interesting the fact that the group of students who acquired more vocabulary (30.15%) did not get the highest scores in the receptive test (*from 8,000 to 9,000 level*). In addition, those participants with the best scores in the test (*from 9,000 to 10,000 level*) were in the third position of the gains (14.28%), whereas those with the second lowest scores in the test (*from 7,000 to 8,000 level*) got the second best results in the vocabulary gains (18.32%). These results seem to coincide with those from a study by Milton and Meara, in which they suggested that students with a smaller vocabulary size developed in their recognition vocabulary knowledge substantially during their stay in a foreign country, as opposed to learners with a large vocabulary size, who got minimal gains (1995).

## Students' general productive vocabulary knowledge (as measured by the Vocabulary Levels Test) and vocabulary learning through narrow reading

The Pearson correlation carried out to find out to what extent students with higher productive vocabulary knowledge acquire more vocabulary than those with a lower level suggested that there was no significant correlation between the two variables ( $r = 0.03$ ,  $n = 14$ ,  $p = 0.90$ ). In other words, it can be claimed that mastering the 2,000 level of words productively does not lead to better acquisition of the words productively. According to Gathercole and Baddeley, for vocabulary learning to take place there should be conscious, intentional focus on the item so that it can be processed in working memory and subsequently submitted to semantic memory (1993). What seems relevant is the fact that students who had poor productive knowledge – as they did not even reach the level of mastery in the first level (2,000) –, did in fact experience productive vocabulary gains. This appears to clearly show that narrow reading seems to be a useful method for vocabulary learning in this specific context of EMI programmes.

## General receptive vocabulary knowledge (as measured by the Vocabulary Size Test) and proficiency

The Pearson correlation used to find out to what extent students' general receptive vocabulary knowledge is related to proficiency showed that there was a significant correlation between the two variables ( $r = 0.615^*$ ,  $n = 14$ ,  $p = 0.010$ ). That is to say, the higher students' receptive vocabulary knowledge, the higher level of proficiency, as Milton suggested

(2010). As stated by Dóczy and Kormos, “vocabulary knowledge grows in relation to proficiency”, even though some factors, such as the instructional context and the target language studied, can affect how vocabulary knowledge is developed (2016, p. 52). It is said that for improving students’ language proficiency up to the intermediate level, it seems necessary to be familiar with 4,000 words receptively (2016).

### General receptive vocabulary knowledge (as measured by the Vocabulary Size Test) and previous knowledge of the target words

The Pearson correlation computed to assess whether students’ general receptive vocabulary knowledge is related to previous knowledge of the target words as revealed in the pretest showed a significant correlation between the two variables ( $r = 0.470^*$ ,  $n = 14$ ,  $p = 0.045$ ). In other words, the vocabulary students knew receptively seems to be related to what they knew in the pretest. Those students who showed greater receptive knowledge of the 140 words in the Vocabulary Size Test, also had better knowledge of the target words before the experiment took place.

### Questionnaire

The aim of the questionnaire was to gather the students’ opinions about narrow reading and its usefulness for improving their reading comprehension skills and for second language vocabulary acquisition.

**Question 1: I have improved my reading skills after reading these 15 texts.**

Half of the students seem to think that narrow reading can be a good technique for improving their reading skills but with certain limitations, as they pointed out in the open questions. In addition, 35.71% of the total firmly believe that narrow reading had positive effects on their comprehension. Finally, a low percentage of the students (14.29%) appears to have negative feelings towards narrow reading as a method for improving their reading skills. This result may be explained by the fact that, as some students suggested in the open questions, the context did not help them guess the meaning of unknown words, which might have affected the students' full comprehension of the texts. As Webb sustains, authentic texts do not always provide readers with enough useful contextual clues or background knowledge to infer the meaning of the words appropriately (2008).

**Question 2: I prefer reading texts about the same topic rather than read unrelated texts.**

A high percentage of students (64.29%) prefers reading unrelated texts rather than texts about the same topic.

As can be inferred from their comments, the positive side of narrow reading is the fact that it can be a useful method for learning new vocabulary and, more precisely, the specific vocabulary of a given field while they are learning the subject matter too. It is important to remember that these EMI — English as a Medium of Instruction —

university programmes are being implemented in the Spanish universities gradually. In the case of the participants of this thesis, they had done English for Specific Purposes in 1<sup>st</sup> year and they were enrolled in a subject which represented a transition from English for Specific Purposes to English as a Medium of Instruction in 3<sup>rd</sup> year. They were used to reading the short adapted texts about different topics that appeared in their textbook, as they did in 1<sup>st</sup> year. Therefore, they found it difficult to start focusing and working deeply on a topic through the medium of English, which is what EMI involves. In this case, texts are longer authentic pieces of reading which demand more time and effort and which aim at covering the content of the subject itself.

On the other hand, the negative comments focus on the fact that reading about the same topic might be boring and monotonous and students might want to read a variety of texts in order to acquire a wider range of vocabulary. Hence, the negative side of narrow reading does not seem to lie on its lack of usefulness for vocabulary learning, but on its lack of a motivational component to get students involved in it. As Dóczy and Kormos suggest, *motivation* might influence intentional vocabulary learning considerably, as students need to be tenacious and aware of their learning process, as well as make the most of the input they are exposed to (2016). Therefore, vocabulary gains could have been greater if students had been motivated enough. Maybe they needed being guided and encouraged so that they could have become effective vocabulary learners.

**Question 3: I find reading texts on the same topic, like Agritourism, helpful for vocabulary acquisition.**

Half of the students seem to think that narrow reading can be a good technique for learning the vocabulary of a specific field but with certain limitations, as they pointed out in the open questions. In addition, 35.71% of the total seems to show positive feelings about narrow reading as a method for vocabulary acquisition. Finally, a low percentage of the students (14.29%) appears to have negative feelings about narrow reading as a method for improving their vocabulary knowledge. This result may be explained by the fact that, as the students suggested in the open questions, although they found narrow reading a useful method for learning specific vocabulary, they also pointed out that it was boring, so apparently narrow reading, as used in this study, lacked this motivational component, which can be said to have prevented students from acquiring vocabulary to a greater extent. Moreover, some students stated that sometimes context is not enough for meaning guessing, so, for them, some more overt definitions of certain words are sometimes necessary to learn their meanings. Probably they did not enjoy the topic of Agritourism, and did not understand the reason behind narrow reading in an empirical setting as the one designed for this study. Perhaps gains would have been greater if they had resulted from narrow reading during within the degree curriculum; that is to say, if students could see the purpose and importance of thoroughly reading on a topic. They most likely saw this as a task outside of what they usually did in class and

therefore found it tiring and bothersome, some extra, isolated readings they had to do apart from the everyday tasks.

As stated previously, this was a transition course which is being planned to move to EMI. These students had English for Specific Purposes in Year 1 and were used to short non-authentic texts in their coursebooks. However, working with authentic texts is tougher and requires much greater effort and a greater range of skills.

#### **Question 4: Any further comments**

The further comments the students made reinforce everything that has been said before. On the one hand, students consider narrow reading a useful approach to the learning of vocabulary and the improvement of their reading comprehension skills, as in a study by Schmitt and Carter (2000), another by Chang and Millet (2017) and another one by Kweldju (2008), in which they found that students also showed positive feelings about the influence of narrow reading on vocabulary learning and reading comprehension skills.

On the other hand, the participants of my study pointed out that context does not always guarantee meaning guessing and that reading about the same topic might be rather boring and monotonous. These opinions can be related to the suggestions made by Krashen so that narrow reading is used beneficially. He claims that texts should be fun, easy, interesting and about closely-connected fields so that students get ready for making the transition to more demanding texts successfully (2004). Taking this into account, students might not have found the texts

interesting because they do not seem to have liked the topic of Agritourism. Besides, maybe they were too used to learning English through shorter texts about different topics.

It appears students are still not ready or seem to reject the transition from English for Specific Purposes to the English as a Medium of Instruction programmes, since they are not used to using English as the means of instruction. In spite of this, they were able to realize that reading texts on a given topic was a good way of learning vocabulary. It should be noted that nobody told them the study focused on vocabulary acquisition.



## 8. DISCUSIÓN DE LOS RESULTADOS Y CONCLUSIONES

El experimento llevado a cabo en esta tesis arroja evidencia de que el ‘narrow reading’ puede ser considerado una buena fuente de adquisición del vocabulario de una segunda lengua en aquellos contextos universitarios donde se han implantado los programas EMI, en los que el inglés se utiliza como medio de instrucción.

### Efectividad del ‘narrow reading’ para el aprendizaje del vocabulario de una segunda lengua

La prueba T realizada para averiguar cómo de efectivo es el ‘narrow reading’ para el aprendizaje de vocabulario en el contexto universitario reveló que existía una diferencia significativa en los resultados del pretest ( $M = 6.57$ ,  $SD = 5.45$ ) y del posttest ( $M = 16.07$ ,  $SD = 9.46$ ;  $t(13) = -6.64$ ,  $p = 0.000$ ). En otras palabras, el ‘narrow reading’ parece tener un efecto positivo en el incremento del conocimiento de vocabulario de los alumnos.

Estos resultados parecen apoyar investigaciones previas sobre la influencia del ‘narrow reading’ en el aprendizaje de vocabulario, como es el caso de Min (2008). Los resultados de esta investigación sugieren que los dos tipos de enseñanza analizados – lectura más actividades que amplíen el vocabulario y ‘narrow reading’ – tuvieron un impacto positivo en el conocimiento léxico de las palabras seleccionadas para el experimento, aunque tanto las ganancias receptivas como productivas eran mayores en el caso del primer método. Una investigación similar

llevada a cabo por Khamesipour (2015) también destacó la utilidad del ‘narrow reading’ para el aprendizaje de vocabulario. En este caso, se implementaron técnicas explícitas (ofrecer las definiciones de las palabras antes de leer los textos) e implícitas (a través del ‘narrow reading’). Los resultados parecen sugerir que ambos métodos tuvieron un efecto positivo en el aprendizaje de vocabulario, pero los estudiantes obtuvieron mejores resultados cuando se les enseñó vocabulario a través del ‘narrow reading’. Además, esta técnica también mejoró la adquisición de vocabulario en un experimento realizado por Sinta (2012), ya que aprendieron muchas palabras que no conocían antes del mismo.

La diferencia entre las investigaciones mencionadas anteriormente y este estudio es el contexto académico en el que se llevaron a cabo, puesto que los participantes de mi tesis pertenecían a un programa EMI, mientras que los otros eran alumnos de instituto o de universidad que no estaban cursando este tipo de programa. Además, mis estudiantes tuvieron que abarcar un mayor número de textos (15), en contraposición a los otros participantes, quienes leyeron entre 4 y 12 textos. Modifiqué las lecturas ligeramente para que cumplieran con ciertas condiciones en cuanto a las palabras seleccionadas para el experimento. Además, los participantes de mi estudio hicieron verdaderamente ‘narrow reading’, ya que simplemente leyeron los textos sin ningún tipo de ayuda extra.

### **Ganancias por palabra**

Centrándonos en las ganancias de vocabulario por palabra, los participantes de este estudio parecen haber obtenido ganancias en 24 de

las 30 palabras que se analizaron. Estudié algunos de los alumnos que no leyeron algunos de los textos y los usé como grupo de control. Estos estudiantes no mostraron mejora en las palabras que aparecían en los textos que no leyeron. El hecho de que los textos eran sobre el mismo tema parece haber facilitado la adquisición de estas 24 palabras, ya que, como se afirma, si una palabra aparece en un contexto de temas relacionados, será más probable que los estudiantes la adquieran que si aparece en diferentes contextos (Crossley et al., 2013 citado en Dóczy y Kormos, 2016).

Por otra parte, no adquirieron tres palabras – *comprehensive*, *former* y *praise* – y, sorprendentemente, perdieron cierto conocimiento previo de otras tres palabras – *current*, *underway* y *pose* –. La interlengua parece funcionar de esta forma. Una posible razón para esto puede ser el hecho de que el experimento duró tres meses y la mayoría de las repeticiones de estas palabras aparecieron en los textos que leyeron al principio o en el medio del experimento, así que los alumnos apenas encontraron estas palabras en los últimos textos, lo que puede haberles prevenido de obtener mayores ganancias para estas palabras. Además, como muchos de ellos expusieron en el cuestionario abierto, al haber leído tantos textos, pueden haber perdido algo de su motivación inicial y, por lo tanto, pueden no haberse implicado en las últimas sesiones del experimento ni en los últimos tests como era de esperar. Estos resultados parecen apoyar el argumento de que “el aumento de vocabulario es no lineal y cambiante y puede estar influenciado por un número de factores

ambientales y por las características de la información que reciben los alumnos” (Dóczi y Kormos, 2016, p. 56). También merece la pena mencionar el hecho de que quizá los alumnos no usaron o no pudieron usar las estrategias de deducción de significado por el contexto para averiguar el significado de las palabras. Una investigación de Nassaji (2003) reveló que más de la mitad de las veces, los estudiantes no fueron capaces de averiguar el significado de las palabras desconocidas por el contexto de forma satisfactoria; solo pudieron adivinar una de cada cuatro palabras; “cuanta más proporción de palabras desconocidas en el contexto inmediato, más baja la probabilidad de éxito” (2003, p. 653). Como afirma Laufer, cuando los estudiantes obtienen la idea general de un determinado texto, no intentan averiguar el significado de cada palabra, así que puede ocurrir que inferir el significado por el contexto no sea fiable porque no ofrece la información necesaria o porque los alumnos no conocen el 98% de las palabras (2005). Como sugiere Scott, “una alta densidad de palabras desconocidas en un texto obstaculiza el aprendizaje incidental de vocabulario” (2005, p. 76). Asimismo, en aquellos casos en los que se puede deducir el significado de las palabras mediante el contexto más fácilmente, puede suceder que estas palabras no cumplan todas las condiciones para ser adquiridas y recuperadas eficazmente (2005). En cualquier caso, es crucial que las nuevas palabras que se han encontrado los estudiantes en un texto aparezcan en posteriores textos para que no se les olviden, pero los alumnos normalmente no leen tanto como sería necesario para que se aprendieran estas palabras (2005).

En relación a esto, podemos referirnos a la afirmación de que “la memoria a corto plazo depende de trazos de memoria acústica, con elementos presentados visualmente convertidos a un código acústico mediante subvocalización” (Baddeley, 2007, p. 8). De esta forma, leyendo simplemente los trazos formados por las palabras puede haber sido menos estable que si los alumnos también hubiesen escuchado estas palabras en, por ejemplo, conferencias, debido a esta codificación acústica.

Retomando las palabras analizadas en este estudio, también es importante decir que las dos palabras con mayores ganancias son verbos: *wrap* (80%) y *supply* (68.75%). Este hecho es interesante porque investigaciones anteriores sugieren que los sustantivos se adquieren mejor que los adjetivos, seguidos de los verbos (Laufer, 1990). Además, estas dos palabras, *wrap* y *supply*, tienen el menor grado de repetición a lo largo de los textos, 5 y 6 veces, respectivamente, así que parece sorprendente cómo los estudiantes consiguieron ganancias tan altas habiendo estado expuestos a estas palabras tan pocas veces. Es interesante resaltar que la mayoría de las repeticiones de estas dos palabras tuvieron lugar en las últimas 5 lecturas, así que esto puede haber facilitado su adquisición. Es posible que los diferentes contextos desempeñaran un papel crucial para averiguar su significado satisfactoriamente. En el caso de *wrap*, aparece en frases en las que se envuelve algo con papel, en las que puedes envolver algo y dárselo a alguien como regalo. En cuanto a *supply*, se usa en frases en las que

alguien suministra a alguien con comida. Por lo tanto, la utilidad de los contextos inmediatos en ambos casos puede haber desempeñado un papel crucial en inferir sus significados.

Por otra parte, aquellas palabras que no obtuvieron ninguna ganancia o cuyo conocimiento previo fue perdido son todas adjetivos – *comprehensive* (0%), *former* (0%), *underway* (-3.85%) y *current* (-11.11%) – y verbos – *praise* (0%) y *pose* (-3.70%) –. Por lo tanto, esto también parece ir en concordancia con el hecho de que la categoría gramatical que tiene mejores resultados en cuanto a la adquisición de vocabulario son los sustantivos, como veremos con mayor profundidad en la sección en la que se explica cómo la categoría gramatical afectó al aprendizaje de las palabras.

Es interesante ver el porcentaje de palabras que fueron aprendidas principalmente de forma receptiva y cuáles productivamente. Primero, el 60% de las palabras se aprendieron mejor receptivamente que productivamente. Segundo, el 6.66% de las palabras obtuvieron mejores resultados productivamente que receptivamente. Tercero, el 16.66% de las palabras consiguieron el mismo porcentaje de aprendizaje tanto receptivamente como productivamente. Cuarto, el 6.66% de las palabras no tuvieron ni ganancias receptivas ni productivas. Finalmente, el 10% de las palabras no consiguieron ganancias (o de forma receptiva o productiva) y se perdió cierto conocimiento previo de las mismas (o de forma receptiva o productiva). Las bajas ganancias en cuanto a la adquisición de forma productiva pueden ser explicadas por el hecho de

que aunque el aprendizaje de vocabulario parece ocurrir incidentalmente mediante el ‘narrow reading’, como señalan estudios “resulta difícil llegar a dominar el nivel productivo de vocabulario simplemente mediante la exposición a las palabras” (Schmitt, 2008, p. 348).

### **Ganancias por alumno**

Los datos relativos al aprendizaje del vocabulario por alumno parecen sugerir que todos ellos adquirieron vocabulario a través del ‘narrow reading’ en mayor o menor medida, excepto en el caso de uno de los participantes, que no aprendió ninguna de las palabras. La mayoría de los estudiantes tuvieron ganancias de vocabulario similares, pero hay un caso en particular que está considerablemente por encima de la media y dos alumnos que están lejos de ella, puesto que sus ganancias son muy bajas. Estos resultados parecen coincidir con los de un estudio llevado a cabo por Nation y Beglar, en el que investigaron el aprendizaje explícito e implícito de vocabulario. Hubo diversos grados de adquisición de vocabulario; algunos estudiantes mejoraron considerablemente mientras otros tuvieron unos índices más bajos de aprendizaje (2007). Esto puede ser debido a la influencia de varios factores en la adquisición de vocabulario, tales como las características lingüísticas de las palabras, los contextos en los que aparecen o las diferencias individuales de los participantes, que pueden ser definidas como “características o rasgos respecto a los cuales los individuos se pueden mostrar diferentes” (Dörnyei, 2009, p. 181). Ejemplos de diferencias individuales son la motivación de los estudiantes (características afectivas del alumno), la

aptitud lingüística (capacidad y calidad del aprendizaje), los estilos de aprendizaje (la manera de aprender) y las estrategias de aprendizaje (la selección por parte del alumno de rutas de aprendizaje) (2009). Las diferencias entre individuos parecen residir en nuestros genes; en otras palabras, lo que heredamos genéticamente marca una diferencia substancial (2009). Sin embargo, la variación individual no se debe únicamente a un factor que destaca respecto a los otros, sino a todos los factores trabajando juntos y “el valor de cada componente cambia continuamente dependiendo del estado general del sistema y en respuesta a influencias externas, haciendo que la identidad sea un conjunto de variables dinámicas” (2009, 0. 196).

Como sostiene Parry, “los individuos pueden tener estrategias significativamente diferentes y estas estrategias pueden afectar radicalmente la forma en la que aprenden palabras nuevas” (1991, p. 649). En relación a esto, es interesante hacer una referencia a la memoria y el aprendizaje de vocabulario, ya que no es la cantidad de tiempo que la información está almacenada en la memoria funcional lo que la hace ser transferida a la memoria a largo plazo, sino la profundidad y la riqueza de la codificación, que puede diferir en cada individuo (Baddeley, 2007). Por lo consiguiente, esta variación en cuanto al aprendizaje de vocabulario exitoso se puede explicar gracias a su compleja naturaleza, ya que hay numerosos aspectos que desempeñan su papel de una forma o de otra.



## La competencia lingüística de los alumnos y el aprendizaje de vocabulario a través del 'narrow reading'

La correlación de Pearson llevada a cabo para analizar la relación entre el nivel de competencia de los estudiantes y sus resultados en el pretest mostró que había una correlación significativa entre las dos variables ( $r = 0.674^*$ ,  $n = 14$ ,  $p = 0.008$ ). Es decir, cuanto mayor nivel de competencia de los alumnos, mejores resultados obtuvieron en el pretest. Por lo tanto, ser altamente competente en inglés parece garantizar mejores resultados en cuanto al conocimiento de las palabras del experimento antes del mismo.

Además, la correlación de Pearson que se calculó para analizar la relación entre la competencia de los alumnos y el aprendizaje de vocabulario a través del 'narrow reading' muestra que había una correlación significativa entre las dos variables ( $r = 0.556^*$ ,  $n = 14$ ,  $p = 0.039$ ). En otras palabras, los estudiantes con mayor competencia parecen haber obtenido mejores resultados en el posttest, lo que significa que ganaron más conocimiento de las palabras del experimento que aquellos alumnos cuya competencia es menor.

## VARIABLES QUE EXPLICAN LAS GANANCIAS RECEPTIVAS

La CATREG – Regresión Categórica – que se usó para averiguar la influencia de las siguientes variables en las ganancias receptivas de las palabras estudiadas – *tipo de palabra*, *número de exposiciones* (número de veces que se repite cada palabra en los textos), *categoría gramatical*,

*deducibilidad por el contexto y longitud* – reveló que la *longitud*, el número de exposiciones y la *deducibilidad por el contexto* no contribuían al modelo. Como sostiene Laufer en relación a la *longitud de la palabra*, “en una situación de aprendizaje es difícil atribuir la dificultad de aprender una palabra en particular a su longitud más que a una variedad de factores” (Laufer, 1990, p. 298).

Es necesario mencionar que a veces, la importancia de estos factores como los mencionados anteriormente, que finalmente tuvieron que ser excluidos del estudio, se explica por otros factores, esto no significa que estos factores no sean relevantes para el aprendizaje de nuevas palabras.

El 40% de la variación en las ganancias de vocabulario transformadas fue explicada por dos de los predictores transformados: la *categoría gramatical* y el *tipo de palabra*. Ambos predicen las ganancias de vocabulario receptivas de una forma similar. La *categoría gramatical* tiene una correlación parcial de 0.520, así que explica el 27% de la variación en las ganancias de vocabulario si se eliminan los efectos de las otras variables. Por otro lado, el *tipo de palabra* tiene una correlación parcial de 0.529 – justificando el 28% de la variación en las ganancias de vocabulario, después de eliminar los efectos de los otros predictores –.

Centrándonos en la *categoría gramatical*, la que parece ser mejor adquirida son los sustantivos (32.02%), tales como *hayride*, *orchard* y *maze*. Esto puede ser debido al hecho de que la mayoría de sustantivos se caracterizan por un alto grado de concreción, lo que facilita la

asociación de una palabra con una imagen y, como consecuencia, la adquisición de esa palabra en particular, como es el caso en la adquisición de la lengua materna (Spahiu, 2013). No obstante, mientras en otros estudios los sustantivos van seguidos de los adjetivos y de los verbos (Laufer, 1990), en este experimento encontramos lo contrario: los verbos (25.38%) – por ejemplo, *range*, *wrap* y *craft* – tuvieron mejores resultados que los adjetivos (4.57%), tales como *underway*, *budding* y *thriving* –. Una posible razón podría ser el número de sílabas de estas palabras. Los adjetivos tienden a ser más largos, mientras que los verbos son palabras de una sílaba, lo que puede haber afectado a su adquisición. Además, la mayoría de los adjetivos son bastante abstractos, así que estaríamos ante un incremento en la dificultad de asociar una palabra con una imagen. Asimismo, quizá los contextos en los que los adjetivos aparecían no ofrecían suficientes pistas para que los alumnos pudieran averiguar el significado de las palabras o los alumnos pueden haber fallado a la hora de poner en práctica sus estrategias de deducción con estas palabras. Por ejemplo, centrándonos en *comprehensive*, *current*, *former* y *underway*, que obtuvieron ganancias bajas, aparecen en frases en las que simplemente describen que algo es completo/está en marcha o que alguien es el presidente actual o el antiguo miembro. No hay ninguna explicación más de lo que pueden significar estos adjetivos ni ninguna pista disponible para intentar averiguar sus significados.

Según Scott, “no parece haber evidencia clara de que las palabras de una determinada categoría se aprendan más fácilmente que las

palabras de otra”, ya que diferentes categorías gramaticales tienen ganancias más altas en diferentes estudios (2005, p. 73). Por ejemplo, Robbins y Ehri obtuvieron resultados diferentes a los obtenidos en esta tesis: en su estudio, los verbos y los adjetivos se aprendieron mejor que los sustantivos (1994).

En cuanto al tipo de palabra, las *palabras técnicas* (36.59%), tales como *crop*, *statewide* y *oversee*, parecen tener un grado notablemente mayor de adquisición receptiva que otros tipos de palabra: *palabras de baja frecuencia* (19.02%), por ejemplo, *maze*, *quirky* y *encompass*, *palabras de alta frecuencia* (11.19%), como *wrap*, *craft* y *outline*, y *palabras académicas* (4.97%), por ejemplo, *comprehensive*, *pose* y *range*. Merece la pena mencionar el hecho de que, en contraposición a lo que se podría esperar, las *palabras de baja frecuencia* se aprenden mejor que aquellas cuya frecuencia es mayor (19.02% vs. 11.99%). Centrándonos en ejemplos específicos, las tres *palabras de baja frecuencia* con mayores ganancias son: *livestock* (35.71%), *orchard* (32.14%) y *venture* (30%). Esto podría ser debido a que las *palabras de baja frecuencia* en algunos contextos se comportan de forma similar a las *palabras técnicas*, ya que resulta difícil establecer el límite entre un tipo y otro. Por lo tanto, la frecuencia particular de las palabras que los alumnos no saben no siempre parece afectar a su adquisición. Estos hallazgos son diferentes a los encontrados en un estudio previo llevado a cabo por Koirala: según aumentaba la frecuencia de las palabras, la dificultad para adquirirlas disminuía (2015).

## Variables que explican las ganancias productivas

La CATREG – Regresión Categórica – que se usó para averiguar la influencia de las siguientes variables en las ganancias productivas de las palabras estudiadas – *tipo de palabra*, *número de exposiciones* (número de veces que se repite cada palabra en los textos), *categoría gramatical*, *deducibilidad por el contexto* y *longitud* – mostró que la *deducibilidad por el contexto*, el *número de exposiciones* y la *longitud* no parecían contribuir a la variación en relación a las ganancias productivas.

El 46% de la variación en la ganancia de vocabulario transformada se explicó por dos de los predictores transformados: la *categoría gramatical* y el *tipo de palabra*. Esta última tiene una correlación parcial de 0.58, así que explica el 33% de la variación en las ganancias productivas de vocabulario si se eliminan los efectos de las otras variables. La otra variable – *categoría gramatical* – contribuye al modelo en una proporción más baja, 0.45, explicando el 20% de la variación en la ganancia de vocabulario (después de eliminar los efectos de los otros predictores).

En relación a la *categoría gramatical*, como sucede en las ganancias receptivas, la categoría gramatical que parece haber obtenido mejores resultados en cuanto a la adquisición productiva son los sustantivos (20.61%), tales como *crop*, *livestock* y *orchard*. No obstante, mientras que en otros estudios los sustantivos van seguidos de los adjetivos y de los verbos (Laufer, 1990), en este experimento encontramos lo contrario: los verbos (19.68%) – por ejemplo, *wrap*, *supply* y *oversee* – se aprendieron

mejor productivamente que los adjetivos (6.31%), tales como *comprehensive*, *former* y *current*. Una posible razón puede ser que la mayoría de los adjetivos son bastante abstractos, así que nos encontraríamos ante un incremento en la dificultad de asociar una palabra con una imagen. Asimismo, quizá los contextos en los que aparecían los adjetivos no fueron lo suficientemente útiles para averiguar el significado de estas palabras o los alumnos no fueron capaces de usar las estrategias de deducción satisfactoriamente. Como sostiene Schwanenflugel, la concreción relativa de las palabras tiene un efecto positivo en las ganancias de los alumnos en el aprendizaje incidental de vocabulario (1991). Sin embargo, también merece la pena destacar que, mientras los sustantivos y los verbos obtuvieron ganancias más bajas productivamente que receptivamente, los adjetivos consiguieron mejores resultados en las ganancias productivas que en las receptivas (6.31% vs. 4.57%), aunque esta diferencia es mínima. Además, es interesante destacar el hecho de que la diferencia entre las ganancias productivas de los sustantivos y de los verbos es menor que en el caso de las receptivas (0.93% vs. 6.64%).

En lo que concierne al *tipo de palabra*, las *palabras técnicas*, tales como *crop*, *harvest* y *supply*, que mostraron un 26.93% de ganancia del total (es decir, si todas las *palabras técnicas* hubieran sido adquiridas productivamente), parecen tener un grado de adquisición productiva mayor que los otros tipos de palabra: *palabras de alta frecuencia* (13.68%), por ejemplo *ripe*, *outline* y *sow*, *palabras de baja frecuencia*

(13%), tales como *hayride*, *venture* y *county*, y *palabras académicas* (-0.39%), como *comprehensive*, *pose* y *range*. Merece la pena mencionar el hecho de que las *palabras académicas* tuvieron ganancias negativas, es decir, los alumnos tenían algo de conocimiento previo de estas palabras, pero parece que no se acordaron de ellas después del tratamiento. Este lado negativo de las *palabras académicas* parece estar en concordancia con una investigación llevada a cabo por Zheng, en la que los participantes usaron las *palabras de alta frecuencia* productivamente en un porcentaje mayor que las *palabras académicas*, a las que los alumnos no le prestaron ninguna atención (2012). Es interesante destacar que el tipo de palabra que mejor adquirieron tanto receptivamente como productivamente fueron las *palabras técnicas*, tales como *crop*, *harvest* y *statewide*, y el tipo de palabra que obtuvo peores resultados receptivos y productivos fueron las *palabras académicas*, por ejemplo, *comprehensive*, *pose* y *range*. Sin embargo, mientras que las *palabras de baja frecuencia*, tales como *hayride*, *livestock*, *tangy* y *underway*, se aprendieron mejor receptivamente que las *palabras de alta frecuencia*, por ejemplo, *current*, *sow* y *wrap*, en el caso de las ganancias productivas, las *palabras de alta frecuencia* obtuvieron mejores resultados.

## La comprensión lectora de los alumnos y su competencia lingüística

La correlación de Pearson llevada a cabo para averiguar hasta qué punto la comprensión lectora está relacionada con la competencia lingüística sugirió que existía una correlación significativa entre las dos variables ( $r = 0.485^*$ ,  $n = 14$ ,  $p = 0.039$ ). Es decir, los estudiantes con un mayor nivel

de competencia lingüística obtuvieron mejores resultados en la comprensión de los textos. Esto parece estar argumentado por lo que sostiene Nation: “la competencia lingüística en una segunda lengua es un factor importante en la exitosa deducción por el contexto” (2001, p. 247). Por lo tanto, aquellos alumnos con alta competencia lingüística desempeñaron un mejor papel en su comprensión lectora y, como consecuencia, en el uso de estrategias de deducción del significado para obtener la idea general o ideas específicas de los textos, que aquellos cuyo nivel de competencia lingüística es más bajo.

### La comprensión lectora de los alumnos y el aprendizaje de vocabulario a través del ‘narrow reading’

La correlación de Pearson usada para evaluar hasta qué punto la comprensión lectora está relacionada con el aprendizaje de vocabulario a través del ‘narrow reading’ reveló que no existía una correlación significativa entre las dos variables ( $r = 0.045$ ,  $n = 14$ ,  $p = 0.879$ ). Aparentemente, que los alumnos entendieran los textos mejor no implicaba que obtuvieran mejores resultados en el posttest. En otras palabras, aquellos estudiantes que fueron mejores en comprensión lectora no necesariamente se han involucrado más en deducir el significado de las palabras por el contexto que los otros estudiantes. Es importante resaltar que las preguntas de comprensión no se centran en las partes de los textos que contenían las palabras seleccionadas para el experimento para impedir que se concentraran artificialmente en estas palabras. Los alumnos no trabajaron intencionadamente en suponer el



significado de estas palabras mientras respondían las preguntas de comprensión. Por lo tanto, no se pudo medir la comprensión de muchas partes esenciales para el significado general de los textos, mientras otras partes que eran probablemente más fáciles de procesar por su bajo grado de conceptos cruciales y de palabras seleccionadas para el estudio fueron objeto de algunas de las preguntas de comprensión.

### El conocimiento de vocabulario receptivo general de los alumnos (medido mediante el Vocabulary Size Test) y el aprendizaje de vocabulario a través del 'narrow reading'

La correlación de Pearson llevada a cabo para analizar hasta qué punto los alumnos con mayor vocabulario receptivo adquieren más vocabulario que aquellos con un vocabulario receptivo menor sugirió que no existía una correlación significativa entre las dos variables ( $r = 0.216$ ,  $n = 14$ ,  $p = 0.229$ ). En otras palabras, los estudiantes que sabían más palabras receptivamente aparentemente no consiguieron mayores ganancias. Como era de esperar, aquellos alumnos con bajo vocabulario receptivo (*nivel 6,000-7,000*) consiguieron las ganancias más bajas (10.74%). No obstante, es interesante el hecho de que el grupo de alumnos que adquirió más vocabulario (30.15%) no consiguió los resultados más altos en el test receptivo (*nivel 8,000-9,000*). Además, aquellos participantes con los mejores resultados en el test (*nivel 9,000-10,000*) ocuparon la tercera posición en cuanto a las ganancias (14.28%), mientras que aquellos que obtuvieron los segundos resultados más bajos en el test (*nivel 7,000-8,000*) ocuparon la segunda mejor posición en cuanto a las

ganancias de vocabulario (18.32%). Estos resultados parecen coincidir con los que un estudio realizado por Milton y Meara, en el que sugirieron que los alumnos con un tamaño de vocabulario más pequeño desarrollaron su conocimiento receptivo de vocabulario sustancialmente durante su estancia en un país extranjero, en contraposición a los alumnos con un tamaño de vocabulario mayor, quienes obtuvieron ganancias mínimas (1995).

### El conocimiento de vocabulario productivo general de los alumnos (medido mediante el Vocabulary Levels Test) y el aprendizaje de vocabulario a través del ‘narrow reading’

La correlación de Pearson calculada para analizar hasta qué punto los alumnos con un mayor conocimiento de vocabulario productivo adquieren más vocabulario que aquellos con un conocimiento menor mostró que no había una correlación significativa entre las dos variables ( $r = 0.03$ ,  $n = 14$ ,  $p = 0.90$ ). Es decir, se puede afirmar que dominar el nivel 2,000 de las palabras productivamente no conlleva una mejor adquisición de las palabras productivamente. Según Gathercole y Baddeley, para que se lleve a cabo el aprendizaje de vocabulario, debe haber atención consciente y de forma intencionada en la palabra para que pueda ser procesada en la memoria funcional y posteriormente enviada a la memoria semántica (1993). Lo que parece relevante es el hecho de que los estudiantes que tenían un conocimiento productivo pobre – ya que ni siquiera alcanzaron el dominio en el primer nivel (2,000) –, obtuvieron ganancias productivas de vocabulario. Esto parece mostrar

claramente que el 'narrow reading' es un método útil para el aprendizaje de vocabulario en este contexto específico de los programas EMI.

### El conocimiento de vocabulario receptivo general de los alumnos (medido mediante el Vocabulary Size Test) y su competencia lingüística

La correlación de Pearson usada para evaluar hasta qué punto el conocimiento de vocabulario receptivo general está relacionado con la competencia lingüística de los estudiantes sugirió que existía una correlación significativa entre las dos variables ( $r = 0.615^*$ ,  $n = 14$ ,  $p = 0.010$ ). En otras palabras, cuanto mayor es el conocimiento de vocabulario receptivo, mayor es el nivel de competencia lingüística, como Milton sugirió (2010). Según afirman Dóczy & Kormos, "el conocimiento de vocabulario crece en relación a la competencia lingüística", aunque algunos factores, tales como el contexto de instrucción y la segunda lengua, pueden afectar al desarrollo del vocabulario (2016, p.52). Se suele decir que, para mejorar la competencia lingüística de los alumnos hasta el nivel intermedio, es necesario estar familiarizado con 4,000 palabras receptivamente (2016).

### El conocimiento de vocabulario receptivo general de los alumnos (medido mediante el Vocabulary Size Test) y el conocimiento previo de las palabras del estudio

La correlación de Pearson llevada a cabo para analizar si el conocimiento de vocabulario receptivo general está relacionado con el conocimiento previo de las palabras seleccionadas para el experimento que aparecen

en el pretest reveló que existía una correlación significativa entre las dos variables ( $r = 0.470^*$ ,  $n = 14$ ,  $p = 0.045$ ). En otras palabras, el vocabulario que los estudiantes sabían receptivamente parece estar relacionado con lo que sabían en el pretest. Aquellos alumnos que mostraron un mayor conocimiento receptivo de las 140 palabras del Vocabulary Size Test, también obtuvieron mejores resultados en el conocimiento de las palabras del estudio antes de que el experimento se llevara a cabo.

## Cuestionario

El objetivo del cuestionario era recoger las opiniones de los estudiantes sobre el 'narrow reading' y su utilidad para mejorar su comprensión lectora y para el aprendizaje del vocabulario de una segunda lengua.

### **Pregunta 1: He mejorado mi comprensión lectora después de leer estos 15 textos.**

La mitad de los estudiantes parecen pensar que el 'narrow reading' puede ser una buena técnica para mejorar su comprensión lectora, pero con ciertas limitaciones, como señalaron en las preguntas abiertas. Además, el 35.71% del total creen firmemente que el 'narrow reading' tuvo efectos positivos en su comprensión. Finalmente, un bajo porcentaje de estudiantes (14.29%) parece tener sentimientos negativos hacia el 'narrow reading' como método para la mejora de su comprensión lectora. Este resultado se puede explicar por el hecho de que, como algunos estudiantes sugirieron en las preguntas abiertas, el contexto no les ayudó a averiguar el significado de las palabras desconocidas, lo que puede haber afectado a la comprensión total de los textos de los estudiantes.

Según Webb, los textos auténticos no siempre ofrecen al lector pistas contextuales útiles o conocimiento previo para inferir el significado de las palabras apropiadamente (2008).

**Pregunta 2: Prefiero leer textos sobre el mismo tema a leer textos que no están relacionados temáticamente.**

Un alto porcentaje de alumnos (64.29%) prefiere leer textos independientes antes que textos sobre el mismo tema.

Como se puede inferir de sus comentarios, el lado positivo del ‘narrow reading’ es el hecho de que puede ser un método útil para aprender vocabulario nuevo y, más precisamente, el vocabulario específico de un campo, mientras que aprenden su contenido a la vez. Es importante recordar que estos programas universitarios EMI, en los que se utiliza el inglés como medio de instrucción, están siendo implantados en las universidades españolas de forma gradual. En el caso de los participantes de esta tesis, habían cursado *English for Specific Purposes* en el primer curso y estaban matriculados en una asignatura que representaba la transición desde *English for Specific Purposes* a *English as a Medium of Instruction* en el tercer año. Estos alumnos estaban acostumbrados a leer textos cortos adaptados sobre diferentes temas que aparecían en su libro de texto, como fue el caso de la asignatura de primer curso. Por lo tanto, les resultaba difícil empezar a centrarse y a trabajar profundamente en un tema a través del inglés, que es lo que implican los programas EMI. En este caso, los textos son más largos y auténticos y exigen más tiempo y esfuerzo para abarcar el contenido de la asignatura.

Por otra parte, los comentarios negativos se centran en el hecho de que leer sobre el mismo tema puede resultar aburrido y monótono y los alumnos pueden preferir leer una variedad de textos para adquirir un vocabulario más amplio. Por consiguiente, el lado negativo del ‘narrow reading’ no parece residir en su falta de utilidad para el aprendizaje de vocabulario, sino en su falta de un componente motivador que involucre a los alumnos en este proceso. Como sugieren Dóczi y Kormos, la motivación puede influenciar el aprendizaje de vocabulario considerablemente, ya que los alumnos deben ser tenaces y conscientes de su proceso de aprendizaje, así como aprovechar la información a la que están expuestos (2016). Por lo tanto, las ganancias de vocabulario podrían haber sido mayores si los estudiantes hubieran estado lo suficientemente motivados. Quizá necesitaron ser guiados y animados para que se hubieran convertido en aprendices de vocabulario efectivos.

**Pregunta 3: Leer textos sobre el mismo tema, como el Agriturismo, me parece útil para la adquisición de vocabulario.**

La mitad de los alumnos parecen pensar que el ‘narrow reading’ puede ser una buena técnica para el aprendizaje del vocabulario de un campo específico, pero con ciertas limitaciones, como señalaron en las preguntas abiertas. Además, el 35.71% del total parece mostrar sentimientos positivos sobre el ‘narrow reading’ como método para la adquisición de vocabulario. Finalmente, un bajo porcentaje de estudiantes (14.29%) parece tener sentimientos negativos sobre el ‘narrow reading’ como método para mejorar su conocimiento de

vocabulario. Este resultado se puede explicar por el hecho de que, como sugirieron los alumnos en las preguntas abiertas, aunque para ellos el ‘narrow reading’ pareció ser un método útil para el aprendizaje de vocabulario específico, también sugirieron que era aburrido, así que aparentemente, el ‘narrow reading’, como se usa en este estudio, careció de este componente motivador, lo que se puede decir que haya impedido que los estudiantes adquirieran vocabulario en mayor medida. Asimismo, algunos participantes señalaron que a veces el contexto no es suficiente para inferir el significado de las palabras, así que, para ellos, definiciones explícitas para ciertas palabras son a veces necesarias para aprender su significado. Probablemente no disfrutaron el tema del Agriturismo, y no entendieron la razón que hay detrás del ‘narrow reading’ en un contexto empírico como el diseñado para este estudio. Quizá las ganancias hubieran sido mayores si hubieran resultado de incluir el ‘narrow reading’ en el currículum de su carrera; es decir, si los estudiantes pudieran haber visto el propósito y la importancia de leer sobre un tema en profundidad. Probablemente vieron esta tarea como algo que estaba fuera de lo que normalmente hacían en clase y, por consiguiente, lo encontraron agotador y molesto, algunas lecturas extras aisladas que tuvieron que hacer aparte de sus tareas diarias.

Como se ha mencionado previamente, este era un curso de transición al que se planea mover a los programas EMI. Estos alumnos tuvieron *English for Specific Purposes* en el primer año de carrera y estaban acostumbrados a los textos cortos no auténticos de su libro. Sin

embargo, trabajar con textos auténticos es más duro y requiere mucho más esfuerzo y una mayor variedad de habilidades.

#### **Pregunta 4: Comentarios adicionales**

Los comentarios adicionales que hicieron los alumnos refuerzan todo lo que se ha comentado previamente. Por una parte, los alumnos consideran el ‘narrow reading’ un enfoque útil en cuanto al aprendizaje de vocabulario y la mejora de su comprensión lectora, como se apuntó en un estudio de Schmitt y Carter (2000), otro de Chang y Millet (2017) y otro de Kweldju (2008), en los que encontraron que los alumnos también mostraron sentimientos positivos sobre la influencia del ‘narrow reading’ en el aprendizaje del vocabulario y la comprensión lectora.

Por otra parte, los participantes de mi estudio señalaron que el contexto no siempre garantiza la deducción del significado y que leer sobre el mismo tema puede resultar bastante aburrido y monótono. Estas opiniones se pueden relacionar con las sugerencias hechas por Krashen para que el ‘narrow reading’ se use beneficiosamente. Él sostiene que los textos deberían ser divertidos, fáciles, interesantes y sobre campos que están relacionados entre sí para que los alumnos se preparen para llevar a cabo la transición a lecturas mucho más exigentes de forma satisfactoria (2004). Teniendo esto en cuenta, puede que los estudiantes no hayan encontrado las lecturas interesantes porque no parece que les haya gustado el tema del Agriturismo. Además, quizá estaban demasiado acostumbrados a aprender inglés a través de textos cortos sobre diferentes temas.



Parece que los alumnos todavía no están preparados o parecen rechazar la transición desde *English for Specific Purposes* hacia programas *English as a Medium of Instruction*, ya que no están acostumbrados a usar el inglés como el medio de instrucción. A pesar de esto, fueron capaces de darse cuenta de que leer textos sobre un tema determinado era una buena forma de aprender vocabulario. Se debería señalar que nadie les dijo que el estudio se centraba en la adquisición de vocabulario.

## 9. IMPLICATIONS

This study shows that narrow reading can be an effective method for vocabulary acquisition in the university context. This type of reading – about the same topic, by the same author or belonging to the same genre – allows the repetition of words across the different texts, so this recycling of vocabulary seems to facilitate its acquisition. As narrow reading provides a source for incidental vocabulary learning, the number of exposures necessary for it to take place seems of paramount importance. Even though there does not appear to be an agreement in relation to how many exposures would guarantee the acquisition of these words: 6 exposures (Rott, 1999 as cited in Schmitt, 2008, p. 348), 10 or more exposures (Pigada & Schmitt, 2006 as cited in Schmitt, 2008, p. 348), 8 exposures (Waring & Tatakai 2003; Horst, Cobb & Meara, 1998), narrow reading would apparently fulfill this requirement regarding the number of exposures.

As mentioned before, most of the words were acquired to a greater or lesser extent and all the students, except one, experienced vocabulary gains. Individual differences, such as motivation, conscious attention or learning strategies, also seem to have played a crucial role in the degree with which the participants of this study acquired the target words. Apart from this, it should be taken into consideration that the grammatical category and the type of word affect the difficulty with which words are learnt, so special attention should be paid to adjectives and verbs, which are the category with lower gains. Moreover, it is interesting to point out

that students did not have very good general productive vocabulary knowledge – as they did not reach the level of mastery in the 2,000 level – but they did experience productive vocabulary gains, so narrow reading seems to encourage productive vocabulary acquisition to a certain extent.

This thesis can be contextualized within the framework of EMI (English as a Medium of Instruction) programmes that are being implemented in higher education settings in many European countries, such as universities. In this context, narrow reading is one of its main sources of content knowledge dissemination. In the case of this study, by reading texts about the same topic, Agritourism in my thesis, students were exposed to recurrent specific vocabulary related to this field and successfully acquired some of the target words to different degrees. It should be noted that this was so even though they were not asked to focus on vocabulary, they did so incidentally while trying to grasp the content in the texts. It is important to bear in mind that the participants of this study just read the different texts, they were not given any definitions of the words they did not know and they did not do any vocabulary exercises, as they only had to answer two comprehension questions per text. Thus, the focus of this study was on incidental vocabulary acquisition of the 30 target words, which seemed to be successful, especially for those words that were subject matter related. The general positive feelings the participants seemed to show regarding this method appear to support its beneficial effect on second language vocabulary learning.

An aspect that should be highlighted is the fact that the readings were presented as extra materials they had to read out of their ordinary classes. Due to the circumstance that it was not compulsory to take part in the experiment, as it was not included within the assessment criteria of the subject, students might not have engaged with the study as expected and might not have tried to do their best. Maybe they just took part because they were told their participation would be taken into consideration as part of their final grade –, regardless of how well they performed in the experiment. Even so, due to the duration of the experiment, the great majority of the students dropped out. Thus, if narrow reading had been initially included within the academic syllabus of this given subject, students would probably have taken it more seriously and probably have made a considerable effort to cover all the readings and profit from them, which might have resulted in a substantial increase of their vocabulary knowledge and their gains may be higher than in my investigation.

To sum up, narrow reading seems to be a valuable resource for second vocabulary acquisition, at least in this particular context: university students enrolled in Tourism. It provides a beneficial opportunity so that students can increase their vocabulary size and learn specific words that they might subsequently apply to their degree and future professional development. As vocabulary is said to be the pending subject of students who are learning a second language, since the focus of current teaching trends is on communicative aspects, narrow reading

can offer students the possibility to encounter *low frequency words* and, as a consequence, the opportunity to become more efficient in their use of the L2.

It is also worth mentioning that students should be made aware of the importance of using their reading to acquire new words, in particular those they think they might need in their future instruction. This way they could maximize the positive effect of their reading.

## 10. LIMITATIONS

The most important limitation of this study is its the small sample size, just 14 participants. We cannot extrapolate these results to the universal population; that is to say, we cannot make any generalizations in relation to the effect of narrow reading on second language vocabulary acquisition. As previously stated, these results only apply to this particular small group.

In addition, I should have used a control group in order to have more reliable results. Owing to the circumstances and timetable in this degree, as well as to its prolonged duration – about three months –, it was practically impossible to implement a control group. It should be mentioned that I took the students who did not attend all the sessions as control subjects. Thus, it seems crucial to carry out further research investigations concerning this issue with a higher number of participants and in a variety of settings in order to reliably assess the influence of narrow reading on L2 vocabulary learning.

Another shortcoming that can be highlighted is the choice of the topic for narrow reading. According to what the participants suggested in the questionnaire, they did not find the topic of Agritourism interesting, they found it boring mainly because it was boring and because it was about a practice that is not popular in Spain. Hence, this lack of cultural connection might have also prevented students from acquiring vocabulary to a greater extent. Perhaps the use of this topic together with

another which they found more enlightening would have enabled us to compare results and see if in the case of topics they found more relevant, they committed to their learning process in a more active way.

Related to this is the circumstance that this experiment extended for too long, as students read two texts per week due to the fact that they only attended English classes twice a week. Hence, this extensive use of the readings might have made them lose some concentration and the focus that was needed. As a clear example of this, we can point out that in some cases, students knew a word – either receptively or productively – in the pretest, but they did not seem to know it in the posttest. Since they were few cases, it is not clear whether they did not know the word in the pretest either and just tried luck in the pretest, but they were not so lucky in the posttest. Or whether, on the other hand, they did know the word in the pretest but lost motivation in the posttest because they were tired and wanted to do everything in a rush to get rid of it all. Maybe if the setting conditions had been different, an intensive approach, which more closely resembled real academic practice, could have been implemented and students might have benefitted from it in a more effective way. Concentrating their effort on a shorter period of time may have reduced their mental fatigue and they could have taken advantage of their learning abilities in a more efficient way.

Finally, the use of another delayed posttest might have provided more reliable results in relation to how many and which words students did actually retain once the experiment had finished. It was not possible

to carry out the delayed posttest because of schedule restrictions, as the end of the classes was close and students had to make oral presentations as part of their assessment for this subject.



## 11. REFERENCES

- Abdollahi, M. & Taghi, M. (2016). Demystifying the Effect of Narrow Reading on EFL Learners' Vocabulary Recall and Retention. *Education Research International*, 1-11.
- Al-Darayseh, A. (2014). The Impact of Using Explicit/Implicit Vocabulary Teaching Strategies on Improving Students' Vocabulary and Reading Comprehension. *Theory and Practice in Language Studies*, 4(6), 1109-1118.
- Allan, D. (2004). *Oxford Placement Test 1*. Oxford: Oxford University Press.
- Anderson, R. & Freebody, P. (1983). Reading comprehension and the assessment and acquisition of word knowledge. *Advances in Learning/Language Research*, 2, 231-256.
- Azin, N., Biriya, R. & Sardabi, N. (2015). The Effect of Inferencing the Meaning of New Words from Context on Vocabulary Retention by Iranian EFL Learners. *Theory and Practice in Language Studies*, 5(6), 1280-1285.
- Baddeley, A. (2007). *Working memory, thought and action*. New York: Oxford University Press.
- Baddeley, A., Thomson, N. & Buchanan, M. (1975). Word Length and the Structure of Short-Term Memory. *Journal of verbal learning and verbal behaviour*, 14, 575-589.
- Baddeley, A. (1999). *Essentials of Human Memory*. Hove: Psychology Press.
- Barrick, H.P. (1979). Maintenance of knowledge: Questions about memory we forgot to ask. *Journal of Experimental Psychology: General*, 108(3), 296-308.
- Beck, I., McKeown, M.G. & Kucan, L. (2005). Choosing Words to Teach. In E. & Hiebert, *Teaching and Learning Vocabulary. Bringing Research to Practice* (pp. 209-222). New Jersey, London: Lawrence Erlbaum Associates, Publishers.

- Bensoussan, M. & Laufer, B. (1984). Lexical Guessing in Context in EFL Comprehension. *Journal of Research in Reading*, 7(1), 15-32.
- BNU-HKBU, L. & BNU-HKBU, D. (2012). A Research Report on English Vocabulary Learning and Acquisition among Middle School Students Using Narrow-Intensive Reading. *Projections*(108-133).
- Carter, R. & McCarthy, M. (1988). *Vocabulary and Language Teaching*. London: Longman.
- Chang, A. & Millet, S. (2017). Narrow reading: Effects on EFL Learners' reading speed, comprehension and perceptions. *Reading in a Foreign Language*, 1-19.
- Cho, K.S., Ahn, K.O. & Krashen, S. (2005, September). The effects of narrow reading of authentic texts on interest and reading ability in English as a foreign language. *Reading Improvement*, 42(1), 58-64.
- Cho, K-S & Krashen, S. (1994, May). Acquisition of vocabulary from the Sweet Valley Kids Series: Adult ESL acquisition. *Journal of Reading*, 37(8), 662-667.
- Compleat Lexical Tutor*. (2016, 01). Retrieved from <http://www.lextutor.ca/>
- Csizér, K. & Dörnyei, Z. (2005). Language Learners' Motivational Profiles and Their Motivated Learning Behavior. *Language Learning*, 55(4), 613-659.
- Daller, M., Turlik, J. & Weir, I. (2013). Vocabulary acquisition and the learning curve. In S. &. Jarvis, *Vocabulary knowledge. Human ratings and automated measures* (pp. 185-218). John Benjamins Publishing Company.
- Dearden, J. (2014, April). *English as a medium of instruction - a growing global phenomenon*. Retrieved from British Council: [https://www.britishcouncil.org/sites/default/files/e484\\_emi\\_-\\_cover\\_option\\_3\\_final\\_web.pdf](https://www.britishcouncil.org/sites/default/files/e484_emi_-_cover_option_3_final_web.pdf)
- Divya, J.M. (2014, June 16). Webinar: English as a Medium of Instruction (EMI): Philosophies and Policies. Paris, France. Retrieved from <http://www.oecd.org/edu/imhe/FoodforthoughtEnglishasaMediumofInstructionWebinar.pdf>

- Dóczi, B. & Kormos, J. (2016). *Longitudinal Developments in Vocabulary Knowledge and Lexical Organization*. New York: Oxford University Press.
- Dörnyei, Z. (2009). *The Psychology of Second Language Acquisition*. United States: Oxford University Press.
- Ellis, N. & Beaton, A. (1993). Psycholinguistic Determinants of Foreign Language Vocabulary Learning. *Language Learning*, 43(4), 559-617.
- Ellis, N. (1995). The Psychology of Foreign Language Vocabulary Acquisition: Implications for CALL. *International Journal of Computer Assisted Language Learning (CALL)*, 1-28.
- Gairns, R. & Redman, S. (1986). *Working with words. A guide to teaching and learning vocabulary*. New York: Cambridge University Press.
- Gardner, D. (2008, April). Vocabulary recycling in children's authentic reading materials: A corpus-based investigation of narrow reading. *Reading in a Foreign Language*, 20(1), 92-122.
- Gardner, R.C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold Publishers.
- Gathercole, S. & Baddeley, A. (1993). *Working Memory and Language*. Sussex, UK: Lawrence Erlbaum Associates Ltd.
- Ghobadi, M., Shahriar, M. & Azizi, A. (2016). Short-Term and Long-Term Effects of Incidental Vocabulary Acquisition and Instructed Vocabulary Learning. *International Journal of Applied Linguistics & English Literature*, 5(4), 212-218.
- Grainger, J. & Dijkstra, A. (1992). On the representation and use of language information in bilinguals. In R. Haris, *Cognitive Processing in Bilinguals* (pp. 207-220). Amsterdam: Elsevier Science Publishers B.V.
- Haastrup, K. (1989). *Lexical inferencing procedures*. Copenhagen: Handelshøjskolen i København.
- Halliday, M.A.K., McIntosh, A. & Stevens, P.D. (1964). *The Linguistic Science and Language Teaching*. London and New York: Longman.

- Hansen, L.E. & Collins, P. (2015, September). Revisiting the Case for Narrow Reading with English Language Learners. *The Reading Matrix: An International Online Journal*, 15(2), 137-155.
- Hemchua, S. & Schmitt, N. (2006). An analysis of lexical errors in the English compositions of Thai learners. *Prospect*, 21(3), 3-25.
- Horst, M. (2005). Learning L2 vocabulary through extensive reading: A measurement study. *Canadian Modern Language Review*, 61(3), 355-382.
- Horst, M., Cobb, T. & Meara, P. (1998). Beyond A Clockwork Orange: Acquiring second language vocabulary through reading. *Reading in a Foreign Language*, 11, 207-223.
- Hu, M. & Nation, I. S. P. (2000). Vocabulary density and reading comprehension. *Reading in a foreign language*, 23, 403-430.
- Jenkins, J. & Dixon, R. (1983). Vocabulary learning. *Contemporary Educational Psychology*, 8, 237-260.
- Just, M.A. & Carpenter, P.A. (1987). *The psychology of reading and language comprehension*. Newton, Mass: Allyn & Bacon Inc.
- Khamesipour, M. (2015). The Effects of Explicit and Implicit Instruction of Vocabulary through Reading on EFL Learners' Vocabulary Development. *Theory and Practice in Language Studies*, 5(8), 1620-1627.
- Kimura, H. & Ssali, V. (2009, June). The case for combining narrow reading and listening. *The language teacher*, 9-13.
- Koirala, C. (2015). The word frequency effect on second language vocabulary learning. *Research-publishing.net*, 318-323.
- Krashen, S. (2004). The Case for Narrow Reading. *Language Magazine*, 3(5), 17-19.
- Kweldju, S. (2008). Narrow reading in an extensive reading course: lexically-based. *Jurnal Ilmu Pendidikan*, 15(3), 157-168.

- Laufer, B. (1988). Ease and Difficulty in Vocabulary Learning: Some Teaching Implications. *Annual Meeting of the International Association of Teachers of English as a Foreign Language*. Edinburg.
- Laufer, B. (1989). What percentage of text-lexis is essential for comprehension? In C. &. Lauren, *Special Language: from human thinking to thinking machines* (pp. 316-323). Clevedon: Multilingual Matters.
- Laufer, B. (1990). Why are some words more difficult than others? - Some intralexical factors that affect the learning of words. *IRAL: International Review of Applied Linguistics in Language Teaching*, 293-307.
- Laufer, B. (1998). The Development of Passive or Active Vocabulary in a Second Language: Same or Different? *Applied Linguistics*, 19(2), 255-271.
- Laufer, B. (2005). Focus on Form in Second Language Vocabulary Learning. In *EUROSLA Yearbook 5* (pp. 223-250). John Benjamins Publishing Company.
- Laufer, B. (2010). Lexical threshold revisited: Lexical text coverage, learners' vocabulary size and reading comprehension. *Reading in a Foreign Language*, 15-30.
- Liao, P.-S. (2006). EFL Learners' beliefs about and Strategy Use of Translation in English Learning. *SAGE Publications London, Thousand Oaks CA and New Delhi*, 37(2), 191-215.
- Louwerse, M. (2001, June 15). *ELTNEWS.com*. Retrieved May 23, 2017, from [http://www.eltnews.com/columns/kids\\_world/2001/06/encouraging\\_classroom\\_language.html](http://www.eltnews.com/columns/kids_world/2001/06/encouraging_classroom_language.html)
- Ludescher, F. (2017, April 13). *How to teach vocabulary*. Retrieved from <http://www2.vobs.at/ludescher/pdf%20files/how%20to%20teach%20vocabulary.pdf>
- Macaro, E. (2014). EMI: Researching a Global Phenomenon. *Keynote Speech, British Council European Policy Dialogue*. Segovia.
- Milton, J. & Daller, H.M. (2007). The interface between theory and learning in vocabulary acquisition. *EUROSLA*. Newcastle.

- Milton, J. & Meara, P. (1995). How periods abroad affect vocabulary growth in a foreign language. *Review of Applied Linguistics*, 107-108, 17-34.
- Milton, J. & Meara, P. (1998). Are the British really bad at learning foreign languages? *Language Learning Journal*, 18, 68-76.
- Milton, J. (2010). The development of vocabulary breadth across the CEFR levels: A common basis for the elaboration of language syllabuses, curriculum guidelines, examinations and textbooks across Europe. In I. M. Bartning, *Communicative proficiency and linguistic development: Intersections between SLA and Language testing research* (pp. 211-232). Rome: Second Language Acquisition and Testing in Europe Monograph Series, 1.
- Min, H-T. (2008, March). EFL Vocabulary Acquisition and Retention: Reading Plus Vocabulary Enhancement Activities and Narrow Reading. *Language Learning*, 58(1), 73-115.
- Mondria, J-A & Wit-de Boer, M. (1991). The effects of contextual richness on the guesseability and the retention of words in a foreign language. *Applied Linguistics*, 12, 249-267.
- Mondria, J-A. & Wiersma, B. (2004). Receptive, productive, and receptive + productive L2 vocabulary learning: What difference does it make? In P. &. Bogaards, *Vocabulary in a Second Language* (pp. 79-100). Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Nagy, W. (1995). *On the role of context in first- and second-language vocabulary learning*. Illinois: Center for the study of reading.
- Nassaji, H. (2003). L2 Vocabulary Learning From Context: Strategies, Knowledge Sources, and their Relationship With Success in L2 Lexical Inferencing. *TESOL QUARTERLY*, 37(4), 645-670.
- Nation, I. S. P. & Beglar, D. (2007). A vocabulary size test. *The Language Teacher*, 31(7), 9-13.
- Nation, I. S. P. (1990). *Teaching and learning vocabulary*. New York: Newbury House.

- Nation, I.S.P. & Meara, P. (2002). Vocabulary. In N. Schmitt, *An Introduction to Applied Linguistics* (pp. 35-54). Edward Arnold.
- Nation, P. (2001). *Learning Vocabulary in Another Language*. Cambridge: Cambridge University Press.
- Nation, P. (2008). *Teaching Vocabulary: strategies and techniques*. Boston: Heinle.
- Parry, K. (1991). Building a Vocabulary Through Academic Reading. *TESOL QUARTERLY*, 25(4), 629-653.
- Pavesi, M., Bertocchi, D., Hofmannova, M. & Kazianka, M. (2001, April 15). *Teaching through a foreign language*. Retrieved from <http://www.ub.edu/filoan/CLIL/teachers.pdf>
- Pearson, P., Hiebert, E. & Kamil, M. (2007). Vocabulary assessment: What we know and what we need to learn. *Reading Research Quarterly*, 282-296.
- Perkins, J.I. (2009). *Project ENLACE*. Retrieved May 23, 2017, from <http://www2.sfasu.edu/enlace/Cultural%20Factors%20450%202010.pdf>
- Pigada, M. & Schmitt, N. (2006). Vocabulary acquisition from extensive reading: A case study. *Reading in a Foreign Language*, 18, 1-28.
- Prince, P. (1996). Second Language Vocabulary Learning: The Role of Context versus Translations as a Function of Proficiency. *The Modern Language Journal*, 80(4), 478-493.
- Qian, D. (2004). Second language lexical inferencing: Preferences, perceptions, and practices. In P. & Bogaards, *Vocabulary in a Second Language* (pp. 155-169). Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Raptis, H. (1997). Is second language reading vocabulary best learned by reading? *The Canadian Modern Language Review*, 53(3), 566-580.
- Read, J. (2000). *Assessing Vocabulary*. Cambridge: Cambridge University Press.

- Rieder, A. (2012, January). *A cognitive view of incidental vocabulary acquisition: From text meaning to word meaning?* Retrieved May 2, 2017, from [http://www.univie.ac.at/Anglistik/views/02\\_1&2/AR.PDF](http://www.univie.ac.at/Anglistik/views/02_1&2/AR.PDF)
- Robbins, C. & Ehri, L.C. (1994). Reading storybooks to kindergartners helps them learn new vocabulary words. *Journal of Educational Psychology*, 86, 54-64.
- Russell, P. (1979). *The Brain Book*. United States: Routledge & Kegan Paul.
- Schmidt, R. (1990). The Role of Consciousness in Second Language Learning. *Applied Linguistics*, 129-158.
- Schmitt, N. & Carter, R. (2000). The lexical advantages of narrow reading for second language learners. *TESOL Journal*, 4-9.
- Schmitt, N. & Schmitt D. (2014). A reassessment of frequency and vocabulary size in L2 vocabulary teaching. *Lang. Teach.*, 47(4), 484-503.
- Schmitt, N. (2000). *Vocabulary in Language Teaching*. Cambridge : Cambridge University Press.
- Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. *Language Teaching Research*, 12(3), 329-363.
- Schuetze, U. (2014). Spacing techniques in second language vocabulary acquisition: Short-term gains vs. Long-term memory. *Language Teaching Research*, 1-15.
- Schwanenflugel, P. (1991). Contextual constraint and lexical processing. In G. Simpson, *Understanding word and sentence*. Amsterdam: Elsevier.
- Scott, J.A. (2005). Creating Opportunities to Acquire New Word Meanings From Text. In E. & Hiebert, *Teaching and Learning Vocabulary. Bringing Research to Practice* (pp. 69-91). New Jersey, London: Lawrence Erlbaum Associates, Publishers.
- Sinta, K. (2012). *Learning Vocabulary Using Narrow Reading for EFL Students: a Case Study*. Retrieved January 26, 2016, from Universitas Kristen Satya Wakana Institutional Repository: <http://repository.uksw.edu/handle/123456789/1609>



- Spahiu, I. (2013). *Acquisition of noun and verb inflection in child's development*. Retrieved April 18, 2017, from Academia: [http://www.academia.edu/3248333/Acquisition\\_of\\_Noun\\_and\\_Verb\\_In\\_flection\\_in\\_Childs\\_Development](http://www.academia.edu/3248333/Acquisition_of_Noun_and_Verb_In_flection_in_Childs_Development)
- Tseng, W-T, & Schmitt, N. (2008). Toward a Model of Motivated Vocabulary Learning: A Structural Equation Modeling Approach. *Language Learning*, 357-400.
- Vidal, K. (2012). Maintenance of Lower-Frequency Vocabulary: A Forgotten Issue? *The IUP Journal of English Studies*, 7(1), 54-63.
- Waring, R. & Tatak, M. (2003). At what rate do learners learn and retain new vocabulary from reading a graded reader? *Reading in a Foreign Language*, 130-163.
- Webb, S. (2008). Receptive and productive vocabulary sizes of L2 learners. *Studies in Second Language Acquisition*, 30, 79-95.
- Weltens, B. (1989). *The attrition of French as a foreign language*. Dordrecht: Foris Publications.
- Woodworth, R.S. & Schlosberg, H. (1955). *Experimental Psychology*. London: Methuen.
- Zareva, A., Schwanenflugel, P. & Nikolova, Y. (2005). Relationship between lexical competence and language proficiency: variable sensitivity. *Studies in Second Language Acquisition*, 27(4), 567-595.
- Zheng, Y. (2012). Exploring long-term productive vocabulary development in an EFL context: the role of motivation. *Sciverse ScienceDirect*, 40, 104-119.
- Zimmerman, C. & Schmitt, N. (2005). Lexical questions to guide the teaching and learning of words. *The Catesol Journal*, 7(1), 1-7.

## 12. APPENDICES

### A. Vocabulary Levels Test

#### VOCABULARY LEVELS TEST

##### Instructions

Complete the following sentences with a suitable word. The first letters of the word are given to you.

##### **2,000 level**

1. La \_\_\_\_\_ of rain led to a shortage of water in the city.
2. The rich man died and left all his we \_\_\_\_\_ to his son.
3. Pup \_\_\_\_\_ must hand in their papers by the end of the week.
4. This sweater is too tight. It needs to be stret \_\_\_\_\_.
5. If you blow up that balloon any more it will bur \_\_\_\_\_.
6. In order to be accepted into the university, he had to impr \_\_\_\_\_ his grades.
7. The differences were so sl \_\_\_\_\_ that they went unnoticed.
8. The dress you're wearing is lov \_\_\_\_\_.
9. It is the de \_\_\_\_\_ that counts, not the thought.
10. Plants receive water from the soil through their ro \_\_\_\_\_.
11. The nu \_\_\_\_\_ was helping the doctor in the operating room.
12. Since he is unskilled, he earns low wa \_\_\_\_\_.
13. This year long sk \_\_\_\_\_ are fashionable again.
14. He is walking on the ti \_\_\_\_\_ of his toes.
15. They had to cl \_\_\_\_\_ a steep mountain to reach the cabin.
16. She wan \_\_\_\_\_ aimlessly in the streets.
17. This work is not up to your usu \_\_\_\_\_ standard.
18. They sat down to eat even though they were not hu \_\_\_\_\_.

### 2,000-3,000 level

1. She wore a beautiful green go \_\_\_\_\_ to the ball.
2. Many people in England mow the la \_\_\_\_\_ of their houses on Sunday morning.
3. The farmer sells the eggs that his he \_\_\_\_\_ lays.
4. Sudden noises at night sca \_\_\_\_\_ me a lot.
5. Many people are inj \_\_\_\_\_ in road accidents every year.
6. Suddenly he was thru \_\_\_\_\_ into the dark room.
7. She showed off her sle \_\_\_\_\_ figure in a long narrow dress.
8. You must wear a bathing suit on a public beach. You're not allowed to bath na \_\_\_\_\_.
9. Before writing the final version, the student wrote several \_\_\_\_\_.
10. It was a cold day. There was a ch \_\_\_\_\_ in the air.
11. The cart is pulled by an o \_\_\_\_\_.
12. His beard was too long. He decided to tr \_\_\_\_\_ it.
13. People were whir \_\_\_\_\_ around on the dance floor.
14. You'll sn \_\_\_\_\_ that branch if you bend it too far.
15. I won't tell anybody. My lips are sea \_\_\_\_\_.
16. You must be aw \_\_\_\_\_ that very few jobs are available.
17. After two years in the Army, he received the rank of lieu \_\_\_\_\_.
18. The pro \_\_\_\_\_ of failing the test scared him.

### 3,000-5,000 level

1. Soldiers usually swear an oa \_\_\_\_\_ of loyalty to their country.
2. The voter placed the ball \_\_\_\_\_ in the box.
3. They keep their valuables in a vau \_\_\_\_\_ at the bank.
4. The kitten is playing with a ball of ya \_\_\_\_\_.
5. We decided to celebrate New Year's E \_\_\_\_\_ together.
6. We could hear the sergeant bel \_\_\_\_\_ commands to the troops.
7. The boss got angry with the secretary and it took a lot of tact to soo \_\_\_\_\_ him.
8. Some people find it difficult to become independent. They prefer to be tied to their mother's ap \_\_\_\_\_ strings.
9. The workmen cleaned up the me \_\_\_\_\_ before they left.
10. I saw them sitting on st \_\_\_\_\_ at the bar drinking beer.
11. People manage to buy houses by raising a mor \_\_\_\_\_ from a bank.
12. At the bottom of the blackboard there is a le \_\_\_\_\_ for chalk.
13. After falling off his bicycle, the boy was covered with bru \_\_\_\_\_.
14. The child was holding a doll in her arms and hu \_\_\_\_\_ it.
15. The picture looks nice; the colours bl \_\_\_\_\_ really well.
16. Nuts and vegetables are considered who \_\_\_\_\_ food.
17. Many gardens are full of fra \_\_\_\_\_ flowers.
18. Many people feel depressed and gl \_\_\_\_\_ about the future of mankind.

**5,000-10,000 level**

1. The baby is wet. Her dia \_\_\_\_\_ needs changing.
2. Second year university students in the US are called soph \_\_\_\_\_.
3. The deac \_\_\_\_\_ helped with the care of the poor of the parish.
4. The hurricane whi \_\_\_\_\_ along the coast.
5. Some coal was still smol \_\_\_\_\_ among the ashes.
6. She was sitting on a balcony and bas \_\_\_\_\_ in the sun.
7. Computers have made typewriters old-fashioned and obs \_\_\_\_\_.
8. Watch out for his wil \_\_\_\_\_ tricks.
9. If your lips are sore, try lip sal \_\_\_\_\_, not medicine.
10. The new vic \_\_\_\_\_ was appointed by the bishop.
11. The actors exchanged ban \_\_\_\_\_ with the reporters.
12. A thro \_\_\_\_\_ controls the flow of gas into an engine.
13. Anyone found loo \_\_\_\_\_ bombed houses and shops will be severely punished.
14. The wounded man squi \_\_\_\_\_ on the floor in agony.
15. The dog crin \_\_\_\_\_ when it saw the snake.
16. The approaching storm stam \_\_\_\_\_ the cattle into running wildly.
17. The problem is beginning to assume mam \_\_\_\_\_ proportions.
18. The rescue attempt could not proceed quickly. It was imp \_\_\_\_\_ by bad weather.

## B. Vocabulary Size Test

### Vocabulary Size Test<sup>1</sup>

Circle the letter a-d with the closest meaning to the key word in the question.

1. SEE: They **saw** it.
  - a. cut
  - b. waited for
  - c. looked at
  - d. started
  
2. TIME: They have a lot of **time**.
  - a. money
  - b. food
  - c. hours
  - d. friends
  
3. PERIOD: It was a difficult **period**.
  - a. question
  - b. time
  - c. thing to do
  - d. book
  
4. FIGURE: Is this the right **figure**?
  - a. answer
  - b. place
  - c. time
  - d. number
  
5. POOR: We are **poor**.
  - a. have no money
  - b. feel happy
  - c. are very interested
  - d. do not like to work hard
  
6. DRIVE: He **drives** fast.
  - a. swims
  - b. learns
  - c. throws balls
  - d. uses a car
  
7. JUMP: She tried to **jump**.
  - a. lie on top of the water
  - b. get off the ground suddenly
  - c. stop the car at the edge of the road
  - d. move very fast
  
8. SHOE: Where is your **shoe**?
  - a. the person who looks after you
  - b. the thing you keep your money in
  - c. the thing you use for writing
  - d. the thing you wear on your foot
  
9. STANDARD: Her **standards** are very high.
  - a. the bits at the back under her shoes
  - b. the marks she gets in school
  - c. the money she asks for
  - d. the levels she reaches in everything
  
10. BASIS: This was used as the **basis**.
  - a. answer
  - b. place to take a rest
  - c. next step
  - d. main part

### Second 1000

1. MAINTAIN: Can they **maintain** it?
  - a. keep it as it is
  - b. make it larger
  - c. get a better one than it
  - d. get it
  
2. STONE: He sat on a **stone**.
  - a. hard thing
  - b. kind of chair
  - c. soft thing on the floor
  - d. part of a tree
  
3. UPSET: I am **upset**.
  - a. tired
  - b. famous
  - c. rich
  - d. unhappy
  
4. DRAWER: The **drawer** was empty.
  - a. sliding box
  - b. place where cars are kept
  - c. cupboard to keep things cold
  - d. animal house
  
5. PATIENCE: He has no **patience**.
  - a. will not wait happily
  - b. has no free time
  - c. has no faith
  - d. does not know what is fair
  
6. NIL: His mark for that question was **nil**.
  - a. very bad
  - b. nothing
  - c. very good
  - d. in the middle
  
7. PUB: They went to the **pub**.
  - a. place where people drink and talk
  - b. place that looks after money
  - c. large building with many shops
  - d. building for swimming
  
8. CIRCLE: Make a **circle**.
  - a. rough picture
  - b. space with nothing in it
  - c. round shape
  - d. large hole
  
9. MICROPHONE: Please use the **microphone**.
  - a. machine for making food hot
  - b. machine that makes sounds louder
  - c. machine that makes things look bigger
  - d. small telephone that can be carried around
  
10. PRO: He's a **pro**.
  - a. someone who is employed to find out important secrets
  - b. a stupid person
  - c. someone who writes for a newspaper
  - d. someone who is paid for playing sport etc

<sup>1</sup> The test is created by Paul Nation, Victoria University of Wellington, and found at <http://www.lex tutor.ca/>. This test is freely available and can be used by teachers and researchers for a variety of purposes.

**Third 1000**

1. SOLDIER: He is a **soldier**.
  - a. person in a business
  - b. student
  - c. person who uses metal
  - d. person in the army
2. RESTORE: It has been **restored**.
  - a. said again
  - b. given to a different person
  - c. given a lower price
  - d. made like new again
3. JUG: He was holding a **jug**.
  - a. A container for pouring liquids
  - b. an informal discussion
  - c. A soft cap
  - d. A weapon that explodes
4. SCRUB: He is **scrubbing** it.
  - a. cutting shallow lines into it
  - b. repairing it
  - c. rubbing it hard to clean it
  - d. drawing simple pictures of it
5. DINOSAUR: The children were pretending to be **dinosaurs**.
  - a. robbers who work at sea
  - b. very small creatures with human form but with wings
  - c. large creatures with wings that breathe fire
  - d. animals that lived a long time ago
6. STRAP: He broke the **strap**.
  - a. promise
  - b. top cover
  - c. shallow dish for food
  - d. strip of material for holding things together
7. PAVE: It was **paved**.
  - a. prevented from going through
  - b. divided
  - c. given gold edges
  - d. covered with a hard surface
8. DASH: They **dashed** over it.
  - a. moved quickly
  - b. moved slowly
  - c. fought
  - d. looked quickly
9. ROVE: He couldn't stop **roving**.
  - a. getting drunk
  - b. travelling around
  - c. making a musical sound through closed lips
  - d. working hard
10. LONESOME: He felt **lonesome**.
  - a. ungrateful
  - b. very tired
  - c. lonely
  - d. full of energy

**Fourth 1000**

1. COMPOUND: They made a new **compound**.
  - a. agreement
  - b. thing made of two or more parts
  - c. group of people forming a business
  - d. guess based on past experience
2. LATTER: I agree with the **latter**.
  - a. man from the church
  - b. reason given
  - c. last one
  - d. answer
3. CANDID: Please be **candid**.
  - a. be careful
  - b. show sympathy
  - c. show fairness to both sides
  - d. say what you really think
4. TUMMY: Look at my **tummy**.
  - a. cloth to cover the head
  - b. stomach
  - c. small furry animal
  - d. thumb
5. QUIZ: We made a **quiz**.
  - a. thing to hold arrows
  - b. serious mistake
  - c. set of questions
  - d. box for birds to make nests in
6. INPUT: We need more **input**.
  - a. information, power, etc. put into something
  - b. workers
  - c. artificial filling for a hole in wood
  - d. money
7. CRAB: Do you like **crabs**?
  - a. sea creatures that walk sideways
  - b. very thin small cakes
  - c. tight, hard collars
  - d. large black insects that sing at night
8. VOCABULARY: You will need more **vocabulary**.
  - a. words
  - b. skill
  - c. money
  - d. guns
9. REMEDY: We found a good **remedy**.
  - a. way to fix a problem
  - b. place to eat in public
  - c. way to prepare food
  - d. rule about numbers
10. ALLEGE: They **alleged** it.
  - a. claimed it without proof
  - b. stole the ideas for it from someone else
  - c. provided facts to prove it
  - d. argued against the facts that supported it

## Fifth 1000

1. DEFICIT: The company had a large **deficit**.
  - a. spent a lot more money than it earned
  - b. went down a lot in value
  - c. had a plan for its spending that used a lot of money
  - d. had a lot of money in the bank
2. WEEP: He **wept**.
  - a. finished his course
  - b. cried
  - c. died
  - d. worried
3. NUN: We saw a **nun**.
  - a. long thin creature that lives in the earth
  - b. terrible accident
  - c. woman following a strict religious life
  - d. unexplained bright light in the sky
4. HAUNT: The house is **haunted**.
  - a. full of ornaments
  - b. rented
  - c. empty
  - d. full of ghosts
5. COMPOST: We need some **compost**.
  - a. strong support
  - b. help to feel better
  - c. hard stuff made of stones and sand stuck together
  - d. rotted plant material
6. CUBE: I need one more **cube**.
  - a. sharp thing used for joining things
  - b. solid square block
  - c. tall cup with no saucer
  - d. piece of stiff paper folded in half
7. MINIATURE: It is a **miniature**.
  - a. a very small thing of its kind
  - b. an instrument to look at small objects
  - c. a very small living creature
  - d. a small line to join letters in handwriting
8. PEEL: Shall I **peel** it?
  - a. let it sit in water for a long time
  - b. take the skin off it
  - c. make it white
  - d. cut it into thin pieces
9. FRACTURE: They found a **fracture**.
  - a. break
  - b. small piece
  - c. short coat
  - d. rare jewel
10. BACTERUM: They didn't find a single **bacterium**.
  - a. small living thing causing disease
  - b. plant with red or orange flowers
  - c. animal that carries water on its back
  - d. thing that has been stolen and sold to a shop

## Sixth 1000

1. DEVIOUS: Your plans are **devious**.
  - a. tricky
  - b. well-developed
  - c. not well thought out
  - d. more expensive than necessary
2. PREMIER: The **premier** spoke for an hour.
  - a. person who works in a law court
  - b. university teacher
  - c. adventurer
  - d. head of the government
3. BUTLER: They have a **butler**.
  - a. man servant
  - b. machine for cutting up trees
  - c. private teacher
  - d. cool dark room under the house
4. ACCESSORY: They gave us some **accessories**.
  - a. papers allowing us to enter a country
  - b. official orders
  - c. ideas to choose between
  - d. extra pieces
5. THRESHOLD: They raised the **threshold**.
  - a. flag
  - b. point or line where something changes
  - c. roof inside a building
  - d. cost of borrowing money
6. THESIS: She has completed her **thesis**.
  - a. long written report of study carried out for a university degree
  - b. talk given by a judge at the end of a trial
  - c. first year of employment after becoming a teacher
  - d. extended course of hospital treatment
7. STRANGLE: He **strangled** her.
  - a. killed her by pressing her throat
  - b. gave her all the things she wanted
  - c. took her away by force
  - d. admired her greatly
8. CAVALIER: He treated her in a **cavalier** manner.
  - a. without care
  - b. politely
  - c. awkwardly
  - d. as a brother would
9. MALIGN: His **malign** influence is still felt.
  - a. evil
  - b. good
  - c. very important
  - d. secret
10. VEER: The car **veered**.
  - a. went suddenly in another direction
  - b. moved shakily
  - c. made a very loud noise
  - d. slid sideways without the wheels turning

**Seventh 1000**

1. OLIVE: We bought **olives**.
  - a. oily fruit
  - b. scented pink or red flowers
  - c. men's clothes for swimming
  - d. tools for digging up weeds
2. QUILT: They made a **quilt**.
  - a. statement about who should get their property when they die
  - b. firm agreement
  - c. thick warm cover for a bed
  - d. feather pen
3. STEALTH: They did it by **stealth**.
  - a. spending a large amount of money
  - b. hurting someone so much that they agreed to their demands
  - c. moving secretly with extreme care and quietness
  - d. taking no notice of problems they met
4. SHUDDER: The boy **shuddered**.
  - a. spoke with a low voice
  - b. almost fell
  - c. shook
  - d. called out loudly
5. BRISTLE: The **bristles** are too hard.
  - a. questions
  - b. short stiff hairs
  - c. folding beds
  - d. bottoms of the shoes
6. BLOC: They have joined this **bloc**.
  - a. musical group
  - b. band of thieves
  - c. small group of soldiers who are sent ahead of others
  - d. group of countries sharing a purpose
7. DEMOGRAPHY: This book is about **demography**.
  - a. the study of patterns of land use
  - b. the study of the use of pictures to show facts about numbers
  - c. the study of the movement of water
  - d. the study of population
8. GIMMICK: That's a good **gimmick**.
  - a. thing for standing on to work high above the ground
  - b. small thing with pockets to hold money
  - c. attention-getting action or thing
  - d. clever plan or trick
9. AZALEA: This **azalea** is very pretty.
  - a. small tree with many flowers growing in groups
  - b. light material made from natural threads
  - c. long piece of material worn by women in India
  - d. sea shell shaped like a fan
10. YOGHURT: This **yoghurt** is disgusting.
  - a. grey mud found at the bottom of rivers
  - b. unhealthy, open sore
  - c. thick, soured milk, often with sugar and flavouring
  - d. large purple fruit with soft flesh

**Eighth 1000**

1. ERRATIC: He was **erratic**.
  - a. without fault
  - b. very bad
  - c. very polite
  - d. unsteady
2. PALETTE: He lost his **palette**.
  - a. basket for carrying fish
  - b. wish to eat food
  - c. young female companion
  - d. artist's board for mixing paints
3. NULL: His influence was **null**.
  - a. had good results
  - b. was unhelpful
  - c. had no effect
  - d. was long-lasting
4. KINDERGARTEN: This is a good **kindergarten**.
  - a. activity that allows you to forget your worries
  - b. place of learning for children too young for school
  - c. strong, deep bag carried on the back
  - d. place where you may borrow books
5. ECLIPSE: There was an **eclipse**.
  - a. a strong wind
  - b. a loud noise of something hitting the water
  - c. The killing of a large number of people
  - d. The sun hidden by a planet
6. MARROW: This is the **marrow**.
  - a. symbol that brings good luck to a team
  - b. Soft centre of a bone
  - c. control for guiding a plane
  - d. increase in salary
7. LOCUST: There were hundreds of **locusts**.
  - a. insects with wings
  - b. unpaid helpers
  - c. people who do not eat meat
  - d. brightly coloured wild flowers
8. AUTHENTIC: It is **authentic**.
  - a. real
  - b. very noisy
  - c. Old
  - d. Like a desert
9. CABARET: We saw the **cabaret**.
  - a. painting covering a whole wall
  - b. song and dance performance
  - c. small crawling insect
  - d. person who is half fish, half woman
10. MUMBLE: He started to **mumble**.
  - a. think deeply
  - b. shake uncontrollably
  - c. stay further behind the others
  - d. speak in an unclear way



**Ninth 1000**

1. HALLMARK: Does it have a **hallmark**?
  - a. stamp to show when to use it by
  - b. stamp to show the quality
  - c. mark to show it is approved by the royal family
  - d. Mark or stain to prevent copying
2. PURITAN: He is a **puritan**.
  - a. person who likes attention
  - b. person with strict morals
  - c. person with a moving home
  - d. person who hates spending money
3. MONOLOGUE: Now he has a **monologue**.
  - a. single piece of glass to hold over his eye to help him to see better
  - b. long turn at talking without being interrupted
  - c. position with all the power
  - d. picture made by joining letters together in interesting ways
4. WEIR: We looked at the **weir**.
  - a. person who behaves strangely
  - b. wet, muddy place with water plants
  - c. old metal musical instrument played by blowing
  - d. thing built across a river to control the water
5. WHIM: He had lots of **whims**.
  - a. old gold coins
  - b. female horses
  - c. strange ideas with no motive
  - d. sore red lumps
6. PERTURB: I was **perturbed**.
  - a. made to agree
  - b. Worried
  - c. very puzzled
  - d. very wet
7. REGENT: They chose a **regent**.
  - a. an irresponsible person
  - b. a person to run a meeting for a time
  - c. a ruler acting in place of the king
  - d. a person to represent them
8. OCTOPUS: They saw an **octopus**.
  - a. a large bird that hunts at night
  - b. a ship that can go under water
  - c. a machine that flies by means of turning blades
  - d. a sea creature with eight legs
9. FEN: The story is set in the **fens**.
  - a. low land partly covered by water
  - b. a piece of high land with few trees
  - c. a block of poor-quality houses in a city
  - d. a time long ago
10. LINTEL: He painted the **lintel**.
  - a. Beam over the top of a door or window
  - b. small boat used for getting to land from a big boat
  - c. beautiful tree with spreading branches and green fruit
  - d. board showing the scene in a theatre

**Tenth 1000**

1. AWE: They looked at the mountain with **awe**.
  - a. worry
  - b. interest
  - c. wonder
  - d. respect
2. PEASANTRY: He did a lot for the **peasantry**.
  - a. local people
  - b. place of worship
  - c. businessmen's club
  - d. poor farmers
3. EGALITARIAN: This organization is **egalitarian**.
  - a. does not provide much information about itself to the public
  - b. dislikes change
  - c. frequently asks a court of law for a judgement
  - d. treats everyone who works for it as if they are equal
4. MYSTIQUE: He has lost his **mystique**.
  - a. his healthy body
  - b. the secret way he makes other people think he has special power or skill
  - c. the woman who has been his lover while he is married to someone else
  - d. the hair on his top lip
5. UPBEAT: I'm feeling really **upbeat** about it.
  - a. upset
  - b. good
  - c. hurt
  - d. confused
6. CRANNY: We found it in the **cranny**!
  - a. sale of unwanted objects
  - b. narrow opening
  - c. space for storing things under the roof of a house
  - d. large wooden box
7. PIGTAIL: Does she have a **pigtail**?
  - a. a rope of hair made by twisting bits together
  - b. a lot of cloth hanging behind a dress
  - c. a plant with pale pink flowers that hang down in short bunches
  - d. a lover
8. CROWBAR: He used a **crowbar**.
  - a. heavy iron pole with a curved end
  - b. false name
  - c. sharp tool for making holes in leather
  - d. light metal walking stick
9. RUCK: He got hurt in the **ruck**.
  - a. hollow between the stomach and the top of the leg
  - b. pushing and shoving
  - c. group of players gathered round the ball in some ball games
  - d. race across a field of snow
10. LECTERN: He stood at the **lectern**.
  - a. desk to hold a book at a height for reading
  - b. table or block used for church sacrifices
  - c. place where you buy drinks
  - d. very edge

**Eleventh 1000**

1. EXCRETE: This was **excreted** recently.
  - a. pushed or sent out
  - b. made clear
  - c. discovered by a science experiment
  - d. put on a list of illegal things
2. MUSSEL: They bought **mussels**.
  - a. small glass balls for playing a game
  - b. shellfish
  - c. large purple fruits
  - d. pieces of soft paper to keep the clothes clean when eating
3. YOGA: She has started **yoga**.
  - a. handwork done by knotting thread
  - b. a form of exercise for body and mind
  - c. a game where a cork stuck with feathers is hit between two players
  - d. a type of dance from eastern countries
4. COUNTERCLAIM: They made a **counterclaim**.
  - a. a demand made by one side in a law case to match the other side's demand
  - b. a request for a shop to take back things with faults
  - c. An agreement between two companies to exchange work
  - d. a top cover for a bed
5. PUMA: They saw a **puma**.
  - a. small house made of mud bricks
  - b. tree from hot, dry countries
  - c. very strong wind that sucks up anything in its path
  - d. large wild cat
6. PALLOR: His **pallor** caused them concern.
  - a. his unusually high temperature
  - b. his lack of interest in anything
  - c. his group of friends
  - d. the paleness of his skin
7. APERITIF: She had an **aperitif**.
  - a. a long chair for lying on with just one place to rest an arm
  - b. a private singing teacher
  - c. a large hat with tall feathers
  - d. a drink taken before a meal
8. HUTCH: Please clean the **hutch**.
  - a. thing with metal bars to keep dirt out of water pipes
  - b. space in the back of a car for bags
  - c. metal piece in the middle of a bicycle wheel
  - d. cage for small animals
9. EMIR: We saw the **emir**.
  - a. bird with long curved tail feathers
  - b. woman who cares for other people's children in Eastern countries
  - c. Middle Eastern chief with power in his land
  - d. house made from blocks of ice
10. HESSIAN: She bought some **hessian**.
  - a. oily pinkish fish
  - b. stuff producing a happy state of mind
  - c. coarse cloth
  - d. strong-tasting root for flavouring food

**Twelfth 1000**

1. HAZE: We looked through the **haze**.
  - a. small round window in a ship
  - b. unclear air
  - c. strips of wood or plastic to cover a window
  - d. list of names
2. SPLEEN: His **spleen** was damaged.
  - a. knee bone
  - b. organ found near the stomach
  - c. pipe taking waste water from a house
  - d. respect for himself
3. SOLILOQUY: That was an excellent **soliloquy!**
  - a. song for six people
  - b. short clever saying with a deep meaning
  - c. entertainment using lights and music
  - d. speech in the theatre by a character who is alone
4. REPTILE: She looked at the **reptile**.
  - a. old hand-written book
  - b. animal with cold blood and a hard outside
  - c. person who sells things by knocking on doors
  - d. picture made by sticking many small pieces of different colours together
5. ALUM: This contains **alum**.
  - a. a poisonous substance from a common plant
  - b. a soft material made of artificial threads
  - c. a tobacco powder once put in the nose
  - d. a chemical compound usually involving aluminium
6. REFECTORY: We met in the **refectory**.
  - a. room for eating
  - b. office where legal papers can be signed
  - c. room for several people to sleep in
  - d. room with glass walls for growing plants
7. CAFEINE: This contains a lot of **caffeine**.
  - a. a substance that makes you sleepy
  - b. threads from very tough leaves
  - c. ideas that are not correct
  - d. a substance that makes you excited
8. IMPALE: He nearly got **impaled**.
  - a. charged with a serious offence
  - b. put in prison
  - c. stuck through with a sharp instrument
  - d. involved in a dispute
9. COVEN: She is the leader of a **coven**.
  - a. a small singing group
  - b. a business that is owned by the workers
  - c. a secret society
  - d. a group of church women who follow a strict religious life
10. TRILL: He practised the **trill**.
  - a. ornament in a piece of music
  - b. type of stringed instrument
  - c. Way of throwing a ball
  - d. dance step of turning round very fast on the toes

**Thirteenth 1000**

1. UBIQUITOUS: Many weeds are **ubiquitous**.
  - a. are difficult to get rid of
  - b. have long, strong roots
  - c. are found in most countries
  - d. die away in the winter
2. TALON: Just look at those **talons**!
  - a. high points of mountains
  - b. sharp hooks on the feet of a hunting bird
  - c. heavy metal coats to protect against weapons
  - d. people who make fools of themselves without realizing it
3. ROUBLE: He had a lot of **roubles**.
  - a. very precious red stones
  - b. distant members of his family
  - c. Russian money
  - d. moral or other difficulties in the mind
4. JOVIAL: He was very **joyful**.
  - a. low on the social scale
  - b. likely to criticize others
  - c. full of fun
  - d. friendly
5. COMMUNIQUE: I saw their **communiqué**.
  - a. critical report about an organization
  - b. garden owned by many members of a community
  - c. printed material used for advertising
  - d. official announcement
6. PLANKTON: We saw a lot of **plankton**.
  - a. poisonous weeds that spread very quickly
  - b. very small plants or animals found in water
  - c. trees producing hard wood
  - d. grey clay that often causes land to slip
7. SKYLARK: We watched a **skylark**.
  - a. show with aeroplanes flying in patterns
  - b. man-made object going round the earth
  - c. person who does funny tricks
  - d. small bird that flies high as it sings
8. BEAGLE: He owns two **beagles**.
  - a. fast cars with roofs that fold down
  - b. large guns that can shoot many people quickly
  - c. small dogs with long ears
  - d. houses built at holiday places
9. ATOLL: The **atoll** was beautiful.
  - a. low island made of coral round a sea-water lake
  - b. work of art created by weaving pictures from fine thread
  - c. small crown with many precious jewels worn in the evening by women
  - d. place where a river flows through a narrow place full of large rocks
10. DIDACTIC: The story is very **didactic**.
  - a. tries hard to teach something
  - b. is very difficult to believe
  - c. deals with exciting actions
  - d. is written in a way which makes the reader unsure of the meaning

**Fourteenth 1000**

1. CANONICAL: These are **canonical** examples.
  - a. examples which break the usual rules
  - b. examples taken from a religious book
  - c. regular and widely accepted examples
  - d. examples discovered very recently
2. ATOP: He was **atop** the hill.
  - a. at the bottom of
  - b. at the top of
  - c. on this side of
  - d. on the far side of
3. MARSUPIAL: It is a **marsupial**.
  - a. an animal with hard feet
  - b. a plant that grows for several years
  - c. a plant with flowers that turn to face the sun
  - d. an animal with a pocket for babies
4. AUGUR: It **augured** well.
  - a. promised good things for the future
  - b. agreed well with what was expected
  - c. had a colour that looked good with something else
  - d. rang with a clear, beautiful sound
5. BAWDY: It was very **bowdy**.
  - a. unpredictable
  - b. enjoyable
  - c. rushed
  - d. rude
6. GAUCHE: He was **gauche**.
  - a. talkative
  - b. flexible
  - c. awkward
  - d. determined
7. THESAURUS: She used a **thesaurus**.
  - a. a kind of dictionary
  - b. a chemical compound
  - c. a special way of speaking
  - d. an injection just under the skin
8. ERYTHROCYTE: It is an **erythrocyte**.
  - a. a medicine to reduce pain
  - b. a red part of the blood
  - c. a reddish white metal
  - d. a member of the whale family
9. CORDILLERA: They were stopped by the **cordillera**.
  - a. a special law
  - b. an armed ship
  - c. a line of mountains
  - d. the eldest son of the king
10. LIMPID: He looked into her **limpid** eyes.
  - a. clear
  - b. tearful
  - c. deep brown
  - d. beautiful

## C. Pre-test

PRETEST (MODIFIED VOCABULARY KNOWLEDGE SCALE FROM WESCHE AND PARIBAKHT (1997))

**Instructions**

For each word, choose I or II.

COUNTY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

CROP	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--

UPHIND	II. I can use this word in a sentence (write a sentence)	
--------	--	--

HARVEST	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

SWALL	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

HAYRIDE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

LIVESTOCK	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

FLARRY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

FLORT	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--

MAZE	II. I can use this word in a sentence (write a sentence)	
------	--	--

JUMBLY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

SPRALE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

ORCHARD	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

PATCH	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

PORFAME	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

REVENUE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--



VENTURE	II. I can use this word in a sentence (write a sentence)	
---------	--	--

RADGE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

BUDDING	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

COMPREHENSIVE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

CURRENT	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

FORMER	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

FELINDER	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--

QUIRKY	II. I can use this word in a sentence (write a sentence)	
--------	--	--

RIPE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

STATEWIDE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TANGY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

THRIVING	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

UNDERWAY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

SHUMMET	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--

TO CRAFT	II. I can use this word in a sentence (write a sentence)	
----------	--	--

TO ENCOMPASS	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO OUTLINE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO OVERSEE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO POSE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO PRAISE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO RANGE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--

TO SOW	II. I can use this word in a sentence (write a sentence)	
--------	--	--

TO SUPPLY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO WRAP	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

## D. Post-test

POSTTEST (MODIFIED VOCABULARY KNOWLEDGE SCALE FROM WESCHE AND PARIBAKHT (1997))

**Instructions**

For each word, choose I or II.

TO WRAP	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

COUNTY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--



FORMER	II. I can use this word in a sentence (write a sentence)	
--------	--	--

RADGE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO SUPPLY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

CROP	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

QUIRKY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

FLORT	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO SOW	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--

HARVEST	II. I can use this word in a sentence (write a sentence)	
---------	--	--

CURRENT	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

UPHIND	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO RANGE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

SWALL	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

HAYRIDE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

FLARRY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--

RIPE	II. I can use this word in a sentence (write a sentence)	
------	--	--

JUMBLY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

SPRALE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO PRAISE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

SHUMMET	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

LIVESTOCK	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

FELINDER	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--

COMPREHENSIVE	II. I can use this word in a sentence (write a sentence)	
---------------	--	--

PORFAME	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO POSE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

MAZE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

STATEWIDE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO OVERSEE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

ORCHARD	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--



TANGY	II. I can use this word in a sentence (write a sentence)	
-------	--	--

TO OUTLINE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

PATCH	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

BUDDING	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

TO ENCOMPASS	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

REVENUE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

THRIVING	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
--	--	--

TO CRAFT	II. I can use this word in a sentence (write a sentence)	
----------	--	--

VENTURE	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

UNDERWAY	I. I know this word. It means (translation into Spanish or explanation of its meaning)	
	II. I can use this word in a sentence (write a sentence)	

## E. Questionnaire

1. I have improved my reading skills after reading these 15 texts.

I. I agree

II. I partially agree

III. I disagree

2. I prefer reading texts about the same topic rather than read unrelated texts.

I. I agree

II. I partially agree

III. I disagree

Why?

3. I find reading texts on the same topic, like Agritourism, helpful for vocabulary acquisition.

I. I agree

II. I partially agree

III. I disagree

4. Any comments you would like to make.

## F. Readings

TEXT 1: <http://www.laconiadailysun.com/newsx/local-news/89904-weekend-agritourism-fastest-growing-part-of-state-s-agriculture-scene-735>

### **Agritourism fastest growing part of state's agriculture scene**

October 30, 2015 Published in Local News

GILFORD — Agritourism, the fastest growing part of New Hampshire's agriculture scene today, contributes up to one third of the \$935 million in farm revenues in the state according to a recent Plymouth State University study.

Agritourism has been seen as a way to ensure economic viability for New Hampshire's remaining working farms and was outlined by Gov. John Lynch's 2005 New Hampshire Farm Viability Task Force, which called for a comprehensive set of amendments to the New Hampshire agriculture and land use statutes to relax local land use restrictions on farmers and create a uniform set of rules to protect farmers and agricultural lands on a statewide basis.

Those recommendations were adopted in 2007 when the legislature enacted House Bill 56, with the intent to promote the growth of agriculture in the State. As part of House Bill 56, the legislature amended RSA 21:34-a, which defines the word "agriculture" and in doing so defined the word "agritourism."

The statute defines "agritourism" as "attracting visitors to a working farm for the purpose of eating a meal, enjoying hayrides, finding your way in corn mazes, making overnight stays, enjoyment of the farm environment, education on farm operations, or active involvement in the activity of the farm which is ancillary to the farm operation."

But a state Supreme Court decision earlier this year in the case of a Henniker Christmas tree farm which wanted to host weddings and educational seminars found that "agritourism" was not included in the definition of "agriculture" under RSA 21:34-a. The court said that the definition of "agriculture" under RSA 21:34-a not only included "operations of a farm," but also encompassed quirky practices "incident to" and "in conjunction with" farming operations.

The decision was cited by the town of Gilford when a cease and desist order was issued by the town's code enforcement officer on August 26 after receiving a complaint from an abutter regarding weddings being held at the Gunstock Hill Road property of Andy and Martina Howe which it was maintained were not agriculture related. Attorney Robert Maher in his advice to the town cited an opinion issued by the N.H. Supreme Court in June of 2015 about a similar operation in Henniker, that said "weddings and like events are not accessory uses" to a farm and that hosting these events in (Henniker) is not a permitted use.

The Howes appealed, maintaining that their use of that property fell within Gilford's definition of agriculture and also said that the order posed a threat to their livelihood and the very idea of agri-tourism events.

Earlier this month the town's Zoning Board of Adjustment, by a 3-1 vote, granted the Howes' appeal of the cease and desist order.

Bills are being drafted in the House and Senate that seek more explicit protection for agritourism according to Senator Andrew Hosmer (D-Laconia), who said Sen. David Boutin, R-Hooksett, and Rep. Robert Haefner, R-Hudson, are leading the efforts in their respective chambers.

Hosmer says that he thinks it is important that the Howes be able to offer agritourism events and wants to see legislation which will protect that right while also maintaining the regulatory power of local planning boards.

The Howes own Beans and Greens, which is a family farm and a farm stand that operates from a commercial zone on Intervale Road in what is called the "meadows" portion of Gilford. They raise many of the products sold at the farm stand at Timber Hill Farm, which is located in a single family residential zone and has been the site of so-called farm to table events for the last five years, and more recently the site of weddings which are described as part of an agritourism business of the Howes.

Atty. Patrick Wood, who represents the Howes, maintained at the ZBA hearing that the Henniker ruling doesn't impact Gilford, because the Henniker ordinance ruling uses the state definition of agriculture, while Gilford's ordinance is substantially different and permits accessory uses.

He said that weddings are not the issue as they are farm to table events, just like family and class reunions and as such are part of the permitted

marketing and selling of products grown at the farm under the town's definition of agriculture.

Last week they presented a site plan for their Gunstock Hill Road to the town's Planning Department, which tabled it pending a site walk of the property today. The plan envisions construction of a timber-frame barn for hosting events and an irrigation pond and seeks one more summer of use of the current farm-to-table events site.

#### COMPREHENSION QUESTIONS

- 1: Why was the Gunstock Hill Road property involved in court case?
- 2: What are the reasons given by the Howes' lawyer to let them run their business?



TEXT 2: <http://www.nbcrightnow.com/story/30368083/farmers-take-to-agritourism-to-increase-revenue-and-expand-business>

## **Farmers Take to "Agritourism" To Increase Revenue and Expand Business**

Posted: Oct 28, 2015 1:51 AM

Updated: Oct 28, 2015 1:51 AM

YAKIMA VALLEY, WA.- The Yakima Valley is known internationally for their produce, but how do the "little" guys compete with the "big" guys, we're told it doesn't have so much to do with a great crop as it does appealing to the customers.

"Agritourism" is a budding industry, especially for those small farms that just can't compete with the large scale fruit companies, which supply all the national population with different varieties of fruit.

"It's getting harder and harder to make ends meet as small farms, and it's a way to keep the farm alive and expose the public to farming," Julie Michener, owner of Bill's Berry Farm in Grandview told us.

For Naches orchard owner, John Thompson, the farm is no longer just a place to raise fruit, "That's what started the farm, people coming here, buying their own fruit and I've capitalized on it probably the last 20 years."

These growers are getting creative, everything from make your own cider and craft your pumpkin, to school tours and even quirky inventions or help with the harvest too.

"This right now is what is sustaining us, we still are growing fruit commercially, but no longer on the same scale we're too small of a farm," Michener explained.

They may be small in comparison to the growers who ship internationally, but these farmers say they pull in 150 to 200 customers on a daily basis, their agritourism is keeping family farming alive.

"To start this ranch up it costs around \$100,000, just to get it online, so we need to recover that source of income, and our pumpkin patch, corn maze, that's what gives us that final push over the edge before the storm," Thompson explained.

Thompson says it's no easy venture though, to really find success in the agritourism industry you need a special something, take advantage of the remaining options, "You're dealing with different kinds of people, hundreds of people, so you have to be able to treat the first one in as kindly as the last one out, you need to oversee the whole process as well".

The fall season for these farmers is underway, both Bill's Berry Farm and Thompson's Fruit Farm will close up shop for the fall season this coming Saturday.

#### COMPREHENSION QUESTIONS

1: What are the goals of agritourism?

2: What does agritourism need to be successful?

TEXT 3: <http://wbtw.com/2015/11/08/local-farms-see-growth-in-agri-tourism-despite-fall-flooding/>

## **Local farms see growth in agri-tourism despite fall flooding**

By wbtwlucaslalonde

Published: November 8, 2015, 7:16 pm

CONWAY, S.C. (WBTW) – Autumn corn mazes and hayrides are a current trend in Horry County, one that county council members want to see continue to grow in our area. It is expected many more local farms join this programme.

Wet weather put a damper on fall fun at local farms on Sunday, but farms opening up to the public is known as agriculture tourism or agri-tourism, a budding industry that is gaining more and more statewide followers.

Paces like Thompson Farm in Conway says it's helping their business grow despite a big economic blow due to last month's historic floods. In other words, agritourism is helping farmers recover a lot of money after such a bad time.

"It did impact us especially the third weekend we weren't able to open at all; and then the last weekend of October we closed at 2pm on Saturday which definitely cost us, but the former part of the month was just phenomenal," said owner/operator Scott Thompson.

Rain on Sunday also forced them to postpone a pumpkin drop, after which they had to craft their own Jack-O'-Lantern and wrap it with some paper, until next Sunday November, 15, and Thompson is confident agri-tourism will continue to benefit his business moving forward.

In the next few months, Horry County will be looking for more agri-tourism opportunities and collecting information through the 2015 Horry County Agriculture Survey, which poses several questions regarding this issue.

If you have an interest in agriculture or agri-tourism, you can contact Horry County through Virginia Norris at [norrisv@horrycounty.org](mailto:norrisv@horrycounty.org).

#### COMPREHENSION QUESTIONS

- 1: How is agritourism thought to be developing?
- 2: How is agritourism helping traditional farms?

TEXT 4: <http://www.agweek.com/news/north-dakota/3853831-peter-welte-agritourism-season-here>

## **Peter Welte: Agritourism season is here**

By Peter Welte / Special to Agweek on Oct 6, 2015 at 10:00 a.m.

It is October, with Halloween around the corner. My thoughts drift to a local pumpkin patch owned by some friends of our family which has been praised because of all the agricultural activities carried out there. It is a delightful enterprise they've developed into not only a pumpkin patch, but also a corn maze, an endure-tangy-fruit-for-a-minute contest, hayrides, pumpkins for sale, a haunted house and a haunted walk through the trees, along with baked goods for visitors. And it is often packed with visitors in the month of October.

It is a perfect example of agritourism, a statewide industry which is gaining more and more attraction.

A Google search on agritourism will yield 671,000 results. It is a hot topic in agriculture. With the serious financial challenges faced by farmers in the former years, agritourism will become more relevant than ever as farmers seek creative ways to diversify their income.

The National Agricultural Law Center has a separate reading room set aside for agritourism. According to the NALC, agritourism is a term that can be synonymous with agrotourism, farm tourism, agricultural tourism, or agritainment.

Defining agritourism can be difficult. According to the NALC, “agritourism could be thought of as the crossroads of tourism and agriculture. Stated more technically, agritourism can be defined as a form of commercial enterprise that links agricultural production and/or processing with tourism in order to attract visitors onto a farm, ranch, or other agricultural business for the purposes of entertaining and/or educating the visitors and generating income for the farm, ranch, or business owner.”

Technically defined, agritourism encompasses four primary factors which can be outlined as follows:

- A combination of the essential elements of the tourism and agriculture industries.
- Attracting members of the public to visit agricultural operations.
- Designed to increase farm income.
- Provides recreation, entertainment and educational experiences to visitors by means of quirky activities which are overseen by experts.

The North Dakota legislature, as in many agricultural states, has devoted a separate chapter of statutes to agritourism. North Dakota Century Code Chapter 53-13 is titled “Agritourism Activity Registration and Liability.” In that chapter, Agritourism activity is defined as any activity, including farming and ranching or any historic, cultural or natural attraction viewed or enjoyed by the public for educational, recreational or

entertainment purposes, regardless of whether the member of the general public pays to participate in the activity or enjoy the attraction.

The laws of North Dakota require registration of any agritourism operation. Interestingly, the laws of North Dakota explicitly state that except as otherwise provided, a participant in an agritourism activity assumes all inherent risks of that activity. This means there is a presumption the tourists enter an agritourism operation at their own risk. Statutes such as these do provide an incentive for agricultural operators to venture into agritourism activities because the statute provides a layer of protection from civil lawsuits by people who visit the agritourism operation, whether they pay a fee to enter or not.

Agritourism takes many forms. My neighbor's operation is just one diversified example. Other examples can be much simpler. In fact, even a traditional farmer's market is classified as an agritourism operation.

As with any business, people who venture into agritourism ought to seek legal counsel. Legal decisions such as business entities or business formation, tax decisions, liability and risk management, and even estate planning must be considered.

Editor's note: Welte is an attorney at Vogel Law Firm in Grand Forks, N.D., and a small grains farmer in Grand Forks County.

## COMPREHENSION QUESTIONS

1: What other terms are used for referring to agritourism?



2: What aspects of the business sphere also apply in the case of agritourism?

TEXT 5: <http://skift.com/2015/10/18/new-jersey-looks-to-agritourism-to-revitalize-farming-industry/>

## **New Jersey Looks to Agritourism to Revitalize Farming Industry**

Barbara Goldberg, Reuters - Oct 18, 2015 11:30 pm

Craving a taste of his native Liberia 4,500 miles (7,200 km) away, maintenance worker Alfred Jones drove just 20 miles from his New Jersey home and waded knee deep into rows of pick-your-own African vegetables at Morris Gbolo's World Crops Farm, with more than 10 different orchards.

The Garden State's newest crops were ready for harvest and Jones plucked baseball-sized eggplants known in Liberia as bitter balls and a tiny yet tangy plant called kittely to make the traditional stews he loved as a boy.

"It tastes and smells very much like home," said Jones, 75, who emigrated in 1979 and lives in nearby Glassboro.

New Jersey, officially nicknamed "The Garden State" since 1954, is striving to revitalize its farming sector. It is seizing on current trends such as the "Eat Local" movement, agritourism and ethnic crops that appeal to a growing population of Asian, Hispanic and African residents, including those flocking to Gbolo's fields in Vineland. More and more people want to join these tendencies.

The slogan has long confounded travelers whose only glimpse of the state is from its New Jersey Turnpike, with views of refineries and gargantuan fuel tanks. But the state has found new ways to pump up its Garden State credibility.

With roughly one-tenth of the U.S. population living within 100 miles of central New Jersey – much of it affluent – the state is in a geographic sweet spot for agritourism, said Brian Schilling, a specialist with Rutgers Cooperative Extension, linked to the state university.

### Tour de Farm

Even at \$150 a ticket, Farm to Fork dinners regularly sell out, and a Tour de Farm cycling and tasting tour that started in 2013 with 100 riders has grown exponentially to more than 1,000 riders, said organizer Mitchell Morrison.

New Jersey's location is the reason the legislature approved the nickname in the first place in 1954, said Richard VanVranken, a Rutgers agricultural agent.

“It was about everything in New Jersey being ripe for the picking for New York and Philadelphia. That drives a lot of what we do, being able to serve the huge markets that we're right in the middle of,” VanVranken said.

Riding new trends, the state is moving to recover its footing: The state had 1.7 million acres (690,000 hectares) of farmland in 1950, an expanse

that has shrunk to 715,000 acres today, said New Jersey Agriculture Secretary Douglas Fisher.

Since hitting a low point in the 1990s, when number of farms dropped to 8,100, that count has risen to 9,100, many of them serving niche markets.

What is more, New Jersey is still a vegetable-producing powerhouse, ranking among the top 10 producers of crops, encompassing cranberries (third biggest in U.S.), bell peppers (third), peaches (fourth), spinach (fourth), cucumbers (fifth) and blueberries (fifth).

But the state also is sowing seeds of innovation to cultivate its appeal to an increasingly urban and immigrant market.

To insure a fertile future for the Garden State, Rutgers agricultural agents put to work the results of a 2006 comprehensive study of Asians and Hispanics on the U.S. East Coast that outlines its findings as follows: they tend to spend more money each month on fresh fruits and vegetables than the national average and that purchasers of ethnic foods put food freshness ahead of price. We will see the results of a study which is currently underway in a couple of months.

Agents reached out to farmers such as Gbolo, who fled his Liberian home amid a civil war in 2002 and wanted to get back to farming. With Rutgers' help, Gbolo grew a first crop of African vegetables in 2009 on a small plot leased from former New Jersey agriculture secretary Art Brown.

Six years later, Gbolo owns a 13-acre parcel and competes with Brown for customers who earlier this month harvested cassava and African black nightshade – to cook the leaves, avoiding the poison berries.

Gbolo keeps a list of the myriad names for each vegetable – depending on the customer’s native land – and it came in handy when his cellphone rang out in the field.

“You got sour-sour? How about clan-clan?” asked a woman on the other end of the phone, using the Sierra Leonean names for roselle and jute.

Both were ready for picking, Gbolo said.

“Alright – I’m coming tomorrow,” she said.

#### COMPREHENSION QUESTIONS

- 1: What is the reason why New Jersey is called “The Garden State”?
- 2: What is curious about Gbolo’s knowledge of vegetables?

TEXT 6:

[http://www.kenoshanews.com/news/leigh\\_presley\\_agritourism\\_a\\_source\\_of\\_fun\\_for\\_families\\_and\\_funds\\_for\\_farmers\\_484350554.html](http://www.kenoshanews.com/news/leigh_presley_agritourism_a_source_of_fun_for_families_and_funds_for_farmers_484350554.html)

## **Leigh Presley: Agritourism a source of fun for families and funds for farmers**

Published September 11, 2015

BY LEIGH PRESLEY

KENOSHA COUNTY UW-EXTENSION

Families and school groups are beginning to venture to the countryside to pick ripe apples, buy fresh produce and enjoy hayrides.

The prime time for agritourism in Wisconsin has arrived.

Agritourism is the budding practice of visiting a farm or agricultural area, often to take part in a farm-based activity. It encompasses a wide variety of quirky experiences from corn mazes to petting zoos.

In our state agritourism is a thriving, and growing, industry. According to the USDA Census of Agriculture, farm income generated by agritourism activities in Wisconsin increased from about \$6.8 million to nearly \$12.9 million from 2007 to 2012.

Agritourism offers unique experiences to Wisconsin's visitors and residents and an economic boon for farmers and rural communities.

For those unfamiliar with agriculture or who don't live on farms, agritourism offers the opportunity to get a taste of farm life and become a direct participant in or supporter of agriculture in their community and its price ranges from \$6 to \$12. Join it!

A 2012 University of Wisconsin-Extension survey, which posed questions to 827 customers of Wisconsin agritourism businesses, found that for 88 percent of survey respondents, supporting local farmers and businesses was a somewhat or very important reason for participating in an agritourism activity. Other important reasons included the opportunity to spend time with friends and family, purchase a food product, enjoy the outdoors and learn something new.

#### Helpful to farmers

For farmers, agritourism can help diversify their operation, utilizing their existing land, facilities and products often without making a huge additional investment.

Considering the fluctuations in income associated with farming, agritourism can help provide some stability or recover money in case there has been economic loss. It can provide a bit of supplemental income for an existing operation, like a working dairy farm offering occasional group tourism, or it can complement other farm revenue sources as in the case of an apple grower adding a you-pick enterprise to a wholesale apple business.

Or agritourism can be the primary enterprise where the tourism activity is the sole income generator for the farm, like a petting zoo or on-farm bed and breakfast.

With consumers showing greater interest in knowing their farmers, agritourism is an increasingly viable option for those wishing to preserve their farm and sustain their farming way of life.

### Community benefits

Agritourism also benefits the entire rural community, bringing people to an area that might not otherwise see much traffic.

According to the 2012 UW-Extension survey, which was underway for six months, median spending during respondents' most recent trip involving agritourism was \$137.50, which includes not only their spending during the agritourism activity, but also money spent outside of the activity like lodging and entertainment.

### Responding to risks

While agritourism activities offer hours of fun for participants, there are inherent risks associated with agriculture to be aware of when visiting a farm such as large equipment, livestock whose behavior can be unpredictable, and features of the rural environment, like the uneven terrain of a farm field. That is why all these activities should be overseen by experts.



A law passed last year exempts liability for agritourism business owners if a visitor is injured or killed as a result of a risk inherent in the agritourism activity (as long as the operator isn't operating with total disregard to the visitor's safety).

Farmers and agritourism operators still need to have liability insurance, post signage to notify visitors of risks, and eliminate obvious hazards, but this act allows them to provide fun and safe experiences for visitors without the fear of a lawsuit that could end their way of life.

### Information online

Enjoy agritourism this fall in Kenosha County and throughout the state. Check out [www.visitdiaryland.com](http://www.visitdiaryland.com) for a listing of agritourism events and destinations or check out the Farm Fresh Atlas of Southeastern Wisconsin for listings of local farms that offer you-pick opportunities, roadside stands and farm visits. It's available online at [www.farmfreshsewi.org](http://www.farmfreshsewi.org).

Leigh Presley is current agriculture educator for the Kenosha County University of Wisconsin-Extension.

### COMPREHENSION QUESTIONS

- 1: What are the reasons for supporting farming activities?
- 2: What are the benefits of agritourism?

TEXT 7: [http://www.huffingtonpost.com/hipmunk/the-best-farm-stay-destinations-in-the-world\\_b\\_8491982.html](http://www.huffingtonpost.com/hipmunk/the-best-farm-stay-destinations-in-the-world_b_8491982.html)

## **The Best Farm Stay Destinations in the World**

Posted: 11/10/2015 11:04 am EST Updated: 11/10/2015 11:59 am EST

By: Fiona Moriarty, Hipmunk

Agricultural tourism is booming. Otherwise known as "agritourism," the principle is pretty simple: A working farm, ranch, or winery venture opens its doors (or fences) to travelers looking to reconnect to the land, learn about rural ways of life, and surround themselves with natural beauty.

As more and more people look to escape the hustle and bustle of the daily grind and hyperconnectivity, farm stays are becoming increasingly appealing and more and more people are joining them. In addition to overnights on the farm, popular quirky agritourism activities encompass pick-your-own fields, farm to table dinners, barn dances, classes or tours which are overseen by experts, corn mazes, fairs, festivals, feeding the livestock and hunting or fishing.

Looking to get in on the rural action? Here you have a comprehensive list of current popular farm stay destinations around the world:

### Brazil

Here you can learn about any of a huge diversity of agricultural products, from tropical flowers to beef or sugarcane. The country is also known for

its cutting-edge sustainability initiatives. Fly into Rio de Janeiro and enjoy the laid-back beach culture for a few days before heading to the countryside.

### California

California's wineries are hard to beat. Enjoy gorgeous views while sipping on pinot in Sonoma Valley, Napa Valley, or lesser-known Temecula, an hour north of San Diego.

### Catalan Pyrenees

One of the most searched-for farm stay destinations, this mountainous Spanish region has been a hotbed of agritourism for years. To reach it, start by flying into Barcelona, which is an easy drive to many of the mountainside towns.

### Grenada

Go to Grenada for the spice farms, stay for the cocoa plantations and have a look at how they sow in summer. The Caribbean country is a lesser-known but gorgeous agritourism destination. Because it hasn't yet achieved the popularity it deserves, the island boasts affordable lodging options.

### Hawaii

Fertile and bursting with tropical produce, Hawaii's gorgeous islands allow agritourists to learn about unique crops such as macadamia nuts,

taro, guavas, and papayas. Whether you fly into Honolulu or Wailea (Maui), gorgeous land awaits.

### New Mexico

New Mexican deserts are home to a surprising number of productive farms raising everything from lavender to fresh herbs and organic produce. Fly into Santa Fe to be near the largest variety of farms.

### The Philippines

Rich in natural resources, the tropical country boasts more than 30 agritourism sites and counting, including organic farms and pineapple and coffee plantations. Be sure not to miss the rice terraces in Northern Luzon and pick the fruit when it is ripe!

### Taiwan

Taiwan is gradually staking a claim for itself as a hub of agritourism, thanks in part to its "leisure farms," which offer farm tours, on-site and locally grown dinners, and the occasional home stay. Many tea plantations have started opening their doors to tourists, as well. You'll find the cheapest flights going into Taipei.

### Tuscany

One of the destinations that first sparked the agritourism industry, Italy's Tuscany region is well known for its old farmhouses, stunning

countryside, and fresh, local food. Flying into Florence will land you smack-dab in the middle of the best that Tuscany has to offer.

### Vermont

While Burlington is an exciting destination in its own right, heading to the countryside pays big dividends. Vermont's farms offer the perfect blend of stunning natural scenery and quaint architecture in the form of old barns and charming bed and breakfasts. If you're there in July, be sure to check out the Vermont Cheesemaker's Festival.

Farming provides a livelihood for approximately 2.6 billion people around the globe — and without farmers or their land, none of us would survive very long. Agritourism can teach us a lot about how food is grown and reconnect us with the people and the land who feed us all year long. Plus, no matter where you book a flight to go, it's bound to be gorgeous.

### COMPREHENSION QUESTIONS

- 1: What is the objective of agritourism?
  
- 2: What is the strong point of The Phillipines?

TEXT 8: <http://www.dailytarheel.com/article/2015/10/lake-hogan-farm-praised-for-its-039agritourism>

## **Lake Hogan Farm praised for its 'agritourism'**

JANE LITTLE | PUBLISHED 10/28/15 12:34AM

The Chapel Hill-Carrboro Chamber of Commerce will induct seven business leaders into its Hall of Fame on Nov. 5. The Daily Tar Heel will feature each of these inductees.

Three generations of the Hogan family, of Lake Hogan Farm, will be among those inducted. Lake Hogan Farm, which currently exists as a residential community, was a successful dairy farm from 1930 to 1995 and supplied inhabitants in that area with many products, including tangy fruit. They are wrapped in the better conditions so that everyone can enjoy all their properties.

The Hogan family has lived in Chapel Hill since the 1700s, before Chapel Hill itself was established. The Hogan brothers — Glenn, Jack, Henry and Hubert — started Lake Hogan Farm, primarily a dairy farm, north and west of Chapel Hill in 1930.

Each brother brought a unique talent to the family venture.

Glenn specialized in animal care and masonry.

Henry had the vision of the farm, connections within the community and business sense.

Jack worked with energy and building and Hubert with agricultural technique and technology. Combined, they created a thriving business.

The second generation of brothers, Bob and Bill, continued the dairy's operation until 1995.

"We were raised on it, worked on it, lived on it and then became owner-operators of it in a partnership," said Chris Hogan, grandson of Henry Hogan.

"It's been a special part of our lives and still is to this day."

The Hogans helped bring electrification to the Chapel Hill area and obtained the first rural electrification grant in the United States, which brought power to other Orange County farms.

Henry Hogan later co-founded the Central Carolina Farmer's Exchange, located in Carrboro and Hillsborough.

It still operates today under a different title: Southern States.

"The family introduced others to the rural life, offering quirky activities, such as tours of their historic homestead and farm, teaching about farming and milking, giving hayrides, crafting pumpkins, and even allowing visits with (UNC's) wooly mascot, Rameses," outlined Aaron Nelson, president and CEO of the Chapel Hill-Carrboro Chamber of Commerce, in an email.

Rameses has been in the care of the Hogan family since the introduction of the mascot in 1924.

The brothers are also credited with damming Bolin Creek, which created Lake Hogan. Locals and college students flocked to the lake in the 1930s and 1940s to swim and picnic.

Lake Hogan Farm is the first example of “agritourism,” an agriculture-based operation that brings visitors to a farm, in the Chapel Hill area.

When choosing a business to induct into the Hall of Fame, Nelson said the committee looked for leadership, community impact and a strong ability to inspire others.

“They’re being honored for smart business acumen but also for their continuous integration with everything into the community,” said Susan Hogan, granddaughter of Henry Hogan.

“It’s a wonderful recognition of a deserving group of people who want to recover our origins without leaving current tendencies aside,” Chris Hogan said.

#### COMPREHENSION QUESTIONS

1: Why were the Hogans important for the rural community?

2: Why has the Lake Hogan Farm been admired?



TEXT 9: <http://www.greeleytribune.com/news/18603647-113/as-agritourism-grows-in-weld-new-farms-jump>

## **As agritourism grows in Weld, more farms jump in**

Bridgett Weaver

October 17, 2015

While growing up on his family's farm near Johnstown, Darren Hankins loved going down to the "slew," a section where the river ran near tall, swaying trees. The possibilities were endless.

Now he brings his daughters to the same place and watches their imaginations run wild.

Hankins and his family decided to open the area and invite families to stop in and do quirky activities within a comprehensive programme, such as crafting a pumpkin and finding their way through the corn maze. After more than 100 years of raising livestock and crops, the Hankins family is also adding a real-life game of Clue, a pumpkin patch and corn cannons to shoot zombies. All these activities are overseen by the own farmers.

Hankins is just one of many farms in the area that is jumping into agritourism, a budding trend that cropped up years ago in Colorado and continues to grow across the nation. It's now a multibillion-dollar statewide industry.

In Weld, according to the 2012 Census of Agriculture, 50 farms reported involvement in some form of agritourism. In 2007, there were just 31.

As the gap between urban and rural closes, agritourism encompasses everything from breweries and wineries to roadside produce stands, pumpkin patches, corn mazes and Christmas tree farms. Each season holds a piece of the agritourism puzzle, but fall is one of the industry's busiest times.

Plus, with this thriving development pushing into rural areas, agritourism has another use for farmers.

“For folks who own land who feel a real squeeze from development...agritourism is just one way to keep families on the land,” Harden said.

Elizabeth O'Rear, current heritage and agritourism program manager for the state's tourism office, said she thinks the term “agritourism” is still relatively new.

She said she thinks a study being conducted by CSU, which is still underway and poses several interesting questions, will show the numbers shooting up this year.

Those farms and ranches promoting agritourism attractions in Colorado reported additional income which ranges from \$33,000 to \$48,000 annually.

Hankins Entertainment at Hankins Farms is one of the newest additions to Weld's agritourism scene, with this being only the second season. Among the attractions is an old troll that wanders the property during the day.

Unlike some of their counterparts, such as Fritzler Colorado Corn Maze in LaSalle and Anderson Farms in Erie, Hankins said they stay away from the extremely scary stuff.

"We're more of a pumpkin patch with a corn maze," he said. "The whole thing this year is geared a little more toward families."

Because they just started their venture into agritourism last year, Hankins said they're still feeling it out, though they have been praised since the moment they started with this.

Many farmers start into agritourism to supplement the farm's income, and some do it just for fun. A few have managed to save their farm with their agritourism attractions.

"Several farmers I have met have saved the farm or added revenue during a low time by adding a maze, festival (or) experience on the farm," said Anne Klein, who serves on the board of directors for the Colorado Tourism Office.

Glen Fritzler, a 16-year agritourism veteran, is one of those who saved his family farm with his Fritzler's Corn Maze.

He said the '80s were lucrative years for farmers, but the '90s nearly killed their farm.

“We lost everything we gained in the '80s in the '90s,” Fritzler said. “So in 2000, there was pretty much nothing left.”

That was when they had to take under advisement a suggestion that they thought was kind of crazy — a corn maze. “The maze has definitely been a shot in the arm in getting us healed financially.”

But, he said, it's not an easy alternative to farming — it still takes a tremendous amount of work.

“We keep thinking next year it will be easier but it's not,” he said. “It takes more labor per acre and you're dealing with the public ... regulations and permits.”

But Fritzler and his family have come to love and enjoy the agritourism, and they plan to keep it going for the long haul.

Their success comes from a lot of community support and good timing, Fritzler said.

“I think people were starving for some clean fun that families could come to and get back to their roots,” he said. “It was just the luck of the draw to find the niche that there was a big need for people to connect again to agriculture in a positive way.”

#### COMPREHENSION QUESTIONS

1: What are some of the reasons for getting involved in agritourism?

2: What is the “dark” side of agritourism?

TEXT 10: <http://www.phuketgazette.net/phuket-business/Organic-Corn-Farm-promotes-agritourism-Phuket/62272>

## **Organic Corn Farm promotes agritourism on Phuket**

Phuket Gazette - November 3, 2015 | 02:30 PM

PHUKET: Though agricultural tourism hasn't really developed enough to make it a serious market segment on the island, that hasn't stopped the government push for exploring yet another avenue for revenue.

In 2014, then Phuket Governor Maitri Inthusut threw his weight behind elephants, goats and pineapples in hopes of seeing growth in Phuket agritourism and its One Tambon One Province (OTOP) products.

Joining those projects, the island's newest agriculturist tourism attraction – an organic sweetcorn farm where you can help with the ripe harvest and enjoy hayrides – opened its doors on a 45-rai plot of land in Rassada on Sunday and was praised enormously.

Vanich Farm is a welcome addition to the island's tourism sector, said current Tourism and Sports Minister Kobkarn Wattan-avrangkul at the opening ceremony.

“We do not see much ‘agritourism’ on the island, as Phuket is known for its beautiful beaches and night life,” Ms Kobkarn said. “This will be an opportunity for visitors to see a different aspect of Phuket.”

Apirak Vanich, chief executive officer of the Vanich Group, explained that the farm is the only place on the island that raises sweetcorn. “It is not easy to grow corn in the south because it rains a lot,” Mr Apirak said. “We have experts overseeing the process to ensure that our corn is organic.”

Vanich sweetcorn products are available under the brand name ‘Daily Fresh’ and provide a variety of goods, including beauty products. They are supplied at the farm or locations where OTOP products are sold.

“There are sheep and rabbits on the farm to entertain tourists. Additionally, visitors will have a comprehensive chance to plant vegetables, craft things, as well as see the agricultural process in the farm’s showroom,” Mr Apirak said.

The facility will be a learning center for children and adults to see how the farm-to-table process is achieved and they will be able to pose their questions about it, Ms Kobkarn said.

Vanich Farm is located behind the Rassada Municipality Office and open from 10am to 6pm daily.

Unfortunately, ticket prices are race based: they range from 100 baht (for Thai nationals) to 200 baht (for foreigners). Children and the elderly will receive a 30 per cent discount.

#### COMPREHENSION QUESTIONS

1: What did Phuket governor decide to do in order to promote agritourism?

2: What is the general purpose of this farm?



TEXT 11:

<http://www.chipleypaper.com/article/20151104/NEWS/151109690>

## **Local farm spotlights agritourism**

PONCE DE LEON — Cypress Cattle & Produce Company holds a heritage of 103 years of running the family business, and the latest generation thinks that's an experience worth sharing.

By JENNIFER RICH

Posted Nov. 4, 2015 at 6:15 PM

Updated Nov 4, 2015 at 6:41 PM

“My family has raised about everything you can raise on a farm, they loved sowing different vegetables,” said Luke Langford of Ponce de Leon.

If his name sounds familiar, it may be because Langford has been strumming a guitar and belting out twangy country classics with The 331 South Band at large events over the past couple years. Langford and his band opened the Down Home Music Fest in March.

As much as he enjoys entertaining, Langford's love of the simple life is what drew him back into the farm business while he was in college.

Cypress Cattle Company was founded in 1912 by W.J. Sapp. From Sapp, the farm was handed down through the family to W.L. Comander, then Ken Langford and now Luke Langford.

“In the former years and into the Depression, we grew red potatoes by the railcar,” said Langford. Sapp also distributed cornmeal and cane syrup produced on the farm and sent milk to an ice cream factory in Pensacola.

The farm had a dairy operation until 1993 when Langford said “it was time to get big or get out.” The family got out of the dairy business and never regretted it. The farm now supplies produce to food retailers and distributors such as Walmart, Sysco and its very own produce market in Freeport.

Things on Cypress Farm changed gears once again as popularity grew around agritourism, a budding type of thriving tourism offering visitors an educational and novel look at life and business in any agricultural setting.

“I want them to spend a day out on the farm going through soybeans and to see production crops,” said Langford. “I want them dirty when they go home. I want them smelling like animals because they had their hands on them all day.”

The farm has hosted field trips and now offers farm tours of the property.

Cypress Cattle & Produce also just ended a successful first ever season of fall-themed fun. The farm was open to the public to experience activities which encompass a 5-acre corn maze, giant pumpkin patch, hayrides and children’s activities. The farm first tried on public curiosity by inviting people in to pick their own bushels of ripe peaches from 600 trees in the orchard each spring. After success with u-pick peaches and

strawberries, it only made sense to try the same with a pumpkin patch so that many more people joined the programme.

Langford said the pumpkin patch is one of the things that sets Cypress Farm apart from other corn mazes in the region.

#### COMPREHENSION QUESTIONS

1: What are the reasons why Luke Langford decided to be involved in farming activities?

2: When did the inflection point that marked the evolution of the farm take place?

TEXT 12: [http://www.mlive.com/business/west-michigan/index.ssf/2015/10/orchards\\_and\\_farms\\_use\\_agri-to.html](http://www.mlive.com/business/west-michigan/index.ssf/2015/10/orchards_and_farms_use_agri-to.html)

## **Agri-tourism brings new visitors, dollars to Michigan farms, orchards**

By Jim Harger

On October 02, 2015 at 10:00 AM

Updated October 02, 2015 at 11:00 AM

GREENVILLE, MI – At Klackle Orchards, ripe apples and tangy pomelos are just the opening act. Continue reading to find out why this thriving business has been praised so much.

Located west of town along M-57, the orchard has become a rural amusement park, with hayrides, a petting zoo, an apple-shaped carousel, pony rides, a pumpkin patch and a corn maze.

Besides fresh apples, you can buy caramel apples, apple pies, apple cider, apple crisp and donuts at Klackle. Its Orchard Café supplies snacks and meals for families and groups, who are encouraged to spend the day.

"It takes about a day to go through everything we've got," says Steve Klackle, a third generation apple grower. "That's why we have the food service and take advantage of the remaining fruit."

About half of the revenue from this family-owned enterprise now comes from visitors, says Natalie Klackle, the fourth-generation manager of the

farm's retail operations. The Klackles have added 25 activities alone this year.

"We want people to know where their food comes from," says Natalie. Open from mid-July through Thanksgiving, the retail operation employs up to 120 full-time and part-time workers.

The Klackles are part of an "agri-tourism" trend among fruit growers and other farmers who want to educate consumers and stabilize their operations by snagging some of the retail dollars available at harvest time.

"To the public, cider mills, corn mazes and all of those fun activities that we see at this time of year are wonderful to visit," says Janice Benson, executive director of the Michigan Agri-tourism Association.

"But for the farms themselves, these activities are becoming an essential part of what makes their operation sustain the ups and downs of their industry."

Of the 260 members in her association, almost half have added new tourism activities or attractions such as bakeries, educational tours or wedding venues, Benson said.

For the Klackle family, agri-tourism has become as big as its farming operation, which employs more than 50 people to pick and process the farm's 250 acres of apple trees, 30 acres of pumpkins and 12 acres of peach trees.

Natalie Klackle says they expect to see 50,000 guests this year – each going home with a bag of apples. The prices guests pay range from \$8 on weekdays to \$12 on weekends for a wagon ride and access to the slides, carousel, corn maze, petting zoo and play area.

At Sietsema Orchards and Cider Mill, north of Ada, the family-owned enterprise is exploring tourism on a more modest level.

Fourth-generation partner Andy Sietsema said his aim is to provide a more intimate and educational setting for their visitors and school field trips.

"We want people to take their time out here and walk the orchard with their kids, their family and grandparents," said Sietsema, whose 15 acres of apple trees boast about 150 different varieties of apples. "You're not going to find a petting zoo or a bouncing pillow out here."

To gain exposure for the orchard at 8540 Two Mile Road NE, Sietsema hosted a 5K "Hard Cider Run" on the weekend before Labor Day that attracted more than 1,000 participants.

They also are adjusting store hours to meet the growing demand for hard cider products, Sietsema said. They are experimenting as a wedding venue and farm-to-table dinners, but are restricted to 20 events a year by township ordinance, he said.

At Dairy Discovery Tours near Alto, founder Annie Link has hosted school field trips and special groups for the past 10 years in an effort to educate the public about modern milk production methods.

Dairy Discovery is part of Swisslane Farms, which milks more than 2,000 cows in barns that include a robotic milking parlor. Visitors pay \$6 a person for guided tours that range from 90 minutes to more than two hours.

"I guess our philosophy is that we believe it's a way for us to give back to the community," says Link.

"The reward is maintaining a good relationship with our community and share in the things we've been blessed with."

#### COMPREHENSION QUESTIONS

- 1: What is the economic impact of agritourism on farms?
- 2: What is Andy's objective with agritourism?

TEXT 13: <http://skift.com/2015/11/08/west-virginia-farms-think-beyond-the-corn-maze-for-agritourism/>

## **West Virginia Farms Think Beyond the Corn Maze for Agritourism**

Elaina Sauber, Associated Press - Nov 08, 2015 8:35 pm

With an end to this year's harvest season in sight and some time after farmers sowed seeds, popular destinations such as Gritt's Fun Farm have cleared out their pumpkin patches and corn mazes.

But the face of this budding industry in West Virginia is ever-evolving — so much that an economic impact study led by the West Virginia University Extension Service is underway to better understand the number and key practices of such operations.

“The thing with agritourism is that corn mazes and pumpkin patches aren't the only way you can get into it,” said Gritt's General Manager Bradley Gritt. “There's opportunities for people to do it in a ton of different ways.”

Agritourism, a business venture on a working farm, gives tourists an authentic experience while providing extra income for the farmer.

Gritt's made its debut in agritourism in 2006 and 2007, with owner Bob Gritt's idea to draw customers in to buy mums and eventually pick their own pumpkins and wrap them carefully. Eight years later, and having been praised year after year, the fun farm has expanded to include a



comprehensive set of activities: two corn mazes, a playground area, a hayride, pedal carts, a livestock museum and apple cannons for the thousands of visitors it receives daily during the month of October.

Owner Bob Gritt said he doesn't have a final count of how many visitors the fun farm received this year, but he suspects the number exceeds the more than 30,000 visitors who came in 2014, when the price ranged from 9\$ to 13\$.

But Gritt's Farm is the exception, not the norm, in Putnam County. Of the nearly 550 farms in Putnam, only 78, or about 14 percent, generate more than \$10,000 in sales annually, according to the U.S. Department of Agriculture's 2012 census. Many who own small farms do so while working full-time jobs.

The WVU Extension economic impact study seeks to determine how much revenue from farming can be attributed to agritourism operations, according to Cindy Martel, marketing specialist with the WV Department of Agriculture. Those findings are expected to be finalized in March, she said.

Leslie and Chris Burdette, who own Shady Oaks Farm in Poca and joined this agritourism trend some time ago, are one example of the many small farm operators in Putnam. The Burdettes work full time, but for more than a decade opened their 63-acre farm to the public each summer with a simple, yet effective, agritourism strategy: Pick your own tomatoes in the orchards.

“When we get ready to retire, this will be an additional source of income,” Leslie Burdette said.

Four years ago, however, the Burdettes temporarily closed their doors after deciding to transition the 2,000-bush farm to a USDA-certified organic operation.

“You have to be chemical-free for three years,” Leslie Burdette said, adding that they’re nearing the end of that process and hope to have their first all-organic harvest next summer.

“Certain things in West Virginia, pick-your-own things, will always be popular,” she said.

Martel, who has specialized in West Virginia agritourism for more than two decades, said farm education plays a key role for attracting kids and adults alike. “It definitely has changed into, how can we connect folks with the food they eat?” Martel said. Additional means of revenue for producers, such as community-supported agriculture shares and farmers markets, have helped perpetuate the role of farmers as not only growers, but also educators, she said.

But, like any facet of tourism, agritourism has its own unique challenges.

While other businesses often seek to stand out from competitors, agritourism thrives on “clustering” area attractions together in efforts to bring in customers.

Leslie Burdette said she thinks agritourism would be “a big hit” in Putnam County if there were more participating farms, as well as advertising and marketing resources.

“Nothing is over in this direction because the bigger farms are over in the (Eastern) Panhandle and (Allegheny) Mountains,” Leslie Burdette said.

“But they don’t realize how many are springing up on this side; it just takes a lot of time.”

On Gritt’s Farm, though, agritourism is part of its legacy. “It’s a lot of work, but a lot of fun at the same time,” Gritt said. “I don’t ever see myself stopping it.”

#### COMPREHENSION QUESTIONS

1: According to the Burdettes, what role will agrotourism have when they retire?

2: What is the biggest challenge faced by agritourism?

TEXT 14: <http://www.theunion.com/news/19133113-113/mandarin-harvest-festival-in-full-swing-with-onset#>

## **Mandarin harvest, festival in full swing with onset of holiday season**

Laura Petersen

November 17, 2015

Special to The Union

In 1960, Rich Johansen was a freshman in high school when his dad took a gamble and planted an orchard for raising Satsuma mandarin trees on the family farm.

Johansen remembers going door-to-door trying to sell the fruit no one had heard of.

Now, the highly prized and sought-after Johansen mandarins are supplied statewide, shipped to loyal buyers as far away as Canada and Boston.

“It’s such a special fruit. Now everyone wants mandarins, they are characterised by their tangy flavour,” said farmer Rich Johansen, who has lived on Penn Valley farmland since 1978 and selling locally since the early days of the organic agriculture movement.

After 55 years, Johansen Ranch, based predominately on a 77-acre certified organic farm in Orland, is considered the most northerly located commercial mandarin grower in the world.

“The festival gives local growers an opportunity to reach 35,000 visitors, which they could never do just on their own farms or at farmers markets. It gives festival-goers an opportunity to taste different kinds of ripe oranges from different orchards. This is an early crop and the mandarins will be perfect for the festival.” Karen Spencer, festival marketer.

With Thanksgiving just a week away, the farm is shifting into high gear for a busy harvest season to the delight of citrus lovers.

“The conditions are there for a very excellent year,” said Johansen.

In Nevada County, long-time fans look forward to this time of year when bags and boxes of sweet, seedless, easy-to-peel citrus arrive at local grocers, some of them are even wrapped just in case people want to give them as a gift.

Already, ahead of former years, the first early shipments in limited quantity of Johansen mandarins have arrived to BriarPatch Co-op and Natural Selection. In December, the mandarin season will be in full swing at the Co-op with bags and boxes from Johansen Ranch and Lincoln-based farm, Side Hill Citrus. Other citrus such as Meyer lemons, navel oranges, clementines and blood oranges will follow.

“The cold snap has brought us a really awesome crop of nice sweet Satsumas this year. Satsumas are the ‘star of the show’ in regional citrus. We look forward to them all year, and shoppers start asking about them as early as September,” said BriarPatch Producer Manager David Benson.

In Placer County, regional epicures are gearing up for the 22nd Annual 2015 Mountain Mandarin Festival, where more than 20 mandarin farmers will be showcased.

“The festival gives local growers an opportunity to reach 35,000 visitors, which they could never do just on their own farms or at farmers markets. It gives festival-goers an opportunity to taste different kinds of oranges from different orchards. This is an early crop and the mandarins will be perfect for the festival,” said festival marketer Karen Spencer.

Similar to wine-tasting, Placer County growers, some with old stock dating back 30 to 40 years, will offer samples of the variety of flavors that come from different types of soil and sun exposures.

In addition to sampling fresh mandarins, food vendors will feature mandarins on menus ranging from barbecued chicken mandarin pizza to mandarin milkshakes.

Over 200 vendors in five indoor buildings will sell mandarin sauces, syrups, salad dressings, jams and jellies, olive oils and more.

Chef demonstrations will take place on cooking stages all three days of the festival.

About 60 commercial mandarin growers in Placer County farm roughly 300 acres and contribute significantly to the region's agri-tourism economy, as a recent study outlines.

Cold hardy Owari Satsuma mandarins are the signature crop of Placer County — the trademark “Placer County Mountain Mandarins” — considered second to none in the world for quality, said Cindy Fake, Horticulture and Small Farms Advisor for the UC Cooperative Extension in Placer County.

The drought and a relatively mild summer played a role in this year's early harvest, a full month earlier for some farms, said Fake.

“Color may still have a tinge of green because of ups and downs in temperatures, but the flavor is good now, with the sugar-acid balance that Satsumas are famous for.”

#### COMPREHENSION QUESTIONS

- 1: What are some of the characteristics of mandarins?
- 2: What other products will be sold at the festival?

TEXT 15: [http://siouxcityjournal.com/travel/international/costa-rican-agritourism-more-popular/article\\_457b2ab2-bdb6-5f5a-9e9a-a3747db6e944.html](http://siouxcityjournal.com/travel/international/costa-rican-agritourism-more-popular/article_457b2ab2-bdb6-5f5a-9e9a-a3747db6e944.html)

## **Costa Rican agritourism more popular**

October 18, 2015 5:35 pm • TERRI COLBY Chicago Tribune

Deep-sea diving, zip-lining and surfing are well-known draws for tourists in Costa Rica, but another kind of soft-adventure option is gaining traction in this Central American country: rural tourism.

Costa Rica is wedged between Nicaragua and Panama, with the Caribbean on one side and the Pacific on the other, so it's easy to see why water sports and beaches get top billing here.

But the rural tourism spans a range of cultural, historical and ecological interests in a country that encompasses rain forests and mountain landscape as well as beaches. A rural itinerary provides an understanding of the country's pastoral heritage and a closer look at local communities, some living in the shadows of the hundreds of volcanoes that dominate the landscape and create the fertile soil, where thousands of seeds are sowed every year.

We started in the capital, San Jose. The central market is an animated and interesting slice of life there, but we were happy to leave the traffic and crowds behind and head for the central valley, Poas Volcano and its hiking trails through the cloud forest. We also made our first agritourism



stop on the same day: a visit to Freddo Leche, a farm near Alajuela that offers quirky activities, such as tours, enjoying hayrides, growing strawberries, crafting artisanal cheeses and housing dairy cows and horses. Visitors can milk the cows or ride the horses, picnic at the on-site Abuelo's Lake, and taste the strawberries and cheeses.

"The thing about rural tourism is that it makes the people proud about what they do and what they are," said Diego Jimenez, current manager, who showed us around the farm and told us about a worker who sings to the strawberries and another who plays guitar for the cows, and presumably the tourists, on Mother's Day.

After a stop at a family-run coffee plantation, we headed to the new Chayote Lodge for our overnight stay. The lodge was built with coffee lovers in mind: Individual bungalows are designed in the shape of *recibidores*, the bean-receiving stations at coffee collectives.

The theme is neither tacky nor kitschy. Rustic yet chic, combining modern and rural touches, the bungalows offer a sophisticated but comfortable design sense, with balconies overlooking coffee fields. A fresh pot of coffee is brought to your bungalow each morning and a present was wrapped with beautiful paper.

Later in the week, we visited the Don Juan Educational Farm in La Fortuna, where we took a tour led by a machete-wielding guide who explained how this sustainable organic farm works. We used a machine to press sugar cane and tasted the local moonshine made with the juice.

But drinking coffee at the farm's riverside restaurant, brewed in the traditional chorreador, was much better.

In addition to farm visits, you can experience farm stays, like the one we enjoyed at Rancho Margot, a sustainable eco-lodge in the shadow of the Arenal Volcano.

There are at least two rewards, actually. First, the resort's accommodations are mostly small, rustic-but-comfortable bungalows, each tucked away in its own small patch of jungle garden. No screens or air conditioning here, just mosquito nets and ceiling fans. Sit on your bungalow's porch, and you'll feel you are alone in the rain forest, with brilliant crimson flowers that stand out against the teeming greenery, and lively bird calls echoing nearby.

Reward No. 2: an accessible, quirky, human-scale example of how far a resort can join ecological sustainability. Rancho Margot does the obvious stuff, such as growing its own vegetables. But it also raises livestock for meat and dairy, generates methane for cooking from the animals' waste, uses compost ovens to heat water and cranks its electric generators with hydropower from the streams that rush through the property. It even makes its own soap. Visitors can see it all, and you'll surely walk away wondering, "Why doesn't everyone do that?"

Comprehensive agri-tourism projects have drawn increasing numbers of visitors over the last several years, according to the Costa Rica Tourism Board. More than 500,000 visitors participated in these thriving projects

in 2014. Compare that with 1.8 million of the 2.5 million international visitors in 2014 coming for deep-sea diving and nearly 825,000 who dropped some of their cash on the 125 companies that offer zip-lining.

#### COMPREHENSION QUESTIONS

- 1: What is Diego's opinion about agritourism?
  
- 2: Which activities are offered at Don Juan Educational Farm in La Fortuna?

## G. Words and number of texts in which they appear

WORD	NUMBER OF TEXTS (out of 15)
Hayride	10
Maze	10
Patch	7
Revenue	7
County	6
Crop	6
Harvest	6
Orchard	6
Livestock	5
Venture	5
Current	9
Quirky	8
Comprehensive	7
Ripe	7
Budding	6
Thriving	6
Former	5
Statewide	5

Tangy	5
Underway	5
Encompass	8
Craft	6
Oversee	6
Praise	6
Range	6
Supply	6
Sow	5
Outline	5
Pose	5
Wrap	5

H. Distribution of words along the texts according to their  
grammatical category

	NOUNS	ADJECTIVES	VERBS
TEXT 1  3(n)+4(adj)+3(v) = 10 target words	3: hayride, maze, revenue	4: comprehensive, current, quirky, statewide	3: encompass, outline, pose
TEXT 2  7(n)+3(adj)+3(v) = 13 target words	7: crop, harvest, maze, orchard, patch, revenue, venture	3: budding, quirky, underway	3: craft, oversee, supply
TEXT 3  3(n)+4(adj)+3(v) = 10 target words	3: county, hayride, maze	4: budding, current, former, statewide	3: craft, pose, wrap
TEXT 4  4(n)+4(adj)+4(v) = 12 target words	4: county, hayride, maze, patch	4: former, quirky, statewide, tangy	4: encompass, outline, oversee, praise
TEXT 5  3(n)+6(adj)+3(v) = 12 target words	3: crop, harvest, orchard	6: comprehensive, current, former, ripe, tangy, underway	3: encompass, outline, sow

TEXT 6 5(n)+6(adj)+4(v) = 15 target words	5: county, hayride, livestock, maze, revenue	6: budding, current, quirky, ripe, thriving, underway	4: encompass, oversee, pose, range
TEXT 7 4(n)+4(adj)+3(v) = 11 target words	4: crop, livestock, maze, venture	4: comprehensive, current, quirky, ripe	3: encompass, oversee, sow
TEXT 8 3(n)+4(adj)+5(v) = 12 target words	3: county, hayride, venture	4: current, quirky, tangy, thriving	5: craft, outline, praise, supply, wrap
TEXT 9 6(n)+7(adj)+6(v) = 19 target words	6: crop, livestock, maze, patch, revenue, venture	7: budding, comprehensive, current, quirky, statewide, thriving, underway	6: craft, encompass, oversee, pose, praise, range
TEXT 10 3(n)+3(adj)+6(v) = 12 target words	3: harvest, hayride, revenue	3: comprehensive, current, ripe	6: craft, oversee, pose, praise, range, supply

TEXT 11  5(n)+4(adj)+3(v) = 12 target words	5: crop, hayride, maze, orchard, patch	4: budding, former, ripe, thriving	3: encompass, sow, supply
TEXT 12  6(n)+3(adj)+3(v) = 12 target words	6: harvest, hayride, maze, orchard, patch, revenue	3: ripe, tangy, thriving	3: praise, range, supply
TEXT 13  9(n)+3(adj)+4(v) = 16 target words	9: county, harvest, hayride, livestock, maze, orchard, patch, revenue, venture	3: budding, comprehensive, underway	4: praise, range, sow, wrap
TEXT 14  4(n)+4(adj)+4(v) = 12 target words	4: county, crop, harvest, orchard	4: former, ripe, statewide, tangy	4: outline, range, supply, wrap
TEXT 15  3(n)+4(adj)+4(v) = 11 target words	3: hayride, livestock, patch	4: comprehensive, current, quirky, thriving	4: craft, encompass, sow, wrap



## I. Total number of exposures of the target words

WORD	TOTAL NUMBER OF EXPOSURES
Hayride	10
Maze	23
Patch	13
Revenue	8
County	20
Crop	13
Harvest	9
Orchard	14
Livestock	5
Venture	5
Current	9
Quirky	9
Comprehensive	7
Ripe	7
Budding	6
Thriving	6
Former	5
Statewide	5

Tangy	5
Underway	5
Encompass	8
Craft	6
Oversee	6
Praise	6
Range	7
Supply	6
Sow	5
Outline	5
Pose	5
Wrap	5

J. Classification of words according to their grammatical category

GRAMMATICAL CATEGORY	WORDS
Nouns	Hayride, maze, patch, revenue, county, crop, harvest, orchard, livestock, venture
Adjectives	Current, quirky, comprehensive, ripe, budding, thriving, former, statewide, tangy, underway
Verbs	Encompass, craft, oversee, praise, range, supply, sow, outline, pose, wrap

## K. Classification of words according to their length

LENGTH	WORDS
1 syllable	Crop, maze, patch, craft, pose, praise, range, ripe, sow, wrap
2 syllables	County, harvest, hayride, livestock, orchard, venture, budding, current, former, quirky, statewide, tangy, thriving, outline, supply
3 syllables	Revenue, underway, encompass, oversee
4 syllables	Comprehensive

## L. Classification of words according to their type

TYPE OF WORD	WORDS
Technical	Crop, harvest, revenue, former, statewide, thriving, oversee, supply
Academic	Comprehensive, pose, range
High frequency words	Current, outline, praise, ripe, sow, wrap, craft
Low frequency words	Hayride, livestock, maze, orchard, budding, quirky, underway, tangy, patch, venture, encompass, county

## M. Classification of words according to the number of exposures

NUMBER OF EXPOSURES	WORDS
From 1 to 5	Livestock, venture, former, statewide, tangy, underway, sow, outline, pose, wrap
From 6 to 10	Hayride, revenue, harvest, current, quirky, comprehensive, ripe, budding, thriving, encompass, craft, oversee, praise, range, supply
From 11 to 15	Patch, crop, orchard
From 16 to 20	County
From 21 to 25	Maze

## N. Classification of words according to deducibility from context

DEDUCIBILITY FROM CONTEXT	WORDS
Can be deduced	County, crop, harvest, livestock, orchard, patch, revenue, venture, comprehensive, current, former, ripe, statewide, tangy, underway, craft, encompass, outline, oversee, pose, praise, range, sow, supply, wrap
Can't be deduced	Hayride, maze, quirky, budding, thriving