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LEXICAL INFERENCING STRATEGIES USED BY LEARNERS
OF ENGLISH AS A FOREIGN LANGUAGE: THEIR RELATIONSHIP TO
DEPTH OF VOCABULARY KNOWLEDGE AND INFERENCING SUCCESS

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1. INTRODUCTION

The acquisition of lexical knowledge is an important process in learning a second or foreign language¹. Unknown vocabulary often causes comprehension problems to second language students. Consequently, they need to resort to a variety of communicative strategies to find solutions to their lack of lexical knowledge. For example, when reading a text, in order to find out the meaning of unknown words, learners use dictionaries; they ask a peer or the teacher for help. This kind of behaviour has been characterized as belonging to a social category (O'Malley and Chamot 1990, Qian 2004). However, what can learners do when they are reading a text in an L2 and none of the resources mentioned above can work? Alternatively, they may try to grasp the meaning of a word by guessing it from the context². This behaviour corresponds to a cognitive type of strategy. Guessing word meaning from context, also known as 'lexical inferencing', is one of the central cognitive processes in reading comprehension (Nassaji 2004). Research has demonstrated that L2 learners make wide use of lexical inferencing strategies when they deal with unknown words in their reading tasks (Nassaji 2004).

The present study focuses on the cognitive process implemented by learners of English when they encounter unknown lexical items in the course of reading comprehension tasks. Lexical inferencing has been defined as "the connections that people make when they try to interpret texts" (Brown and Yule 1983, Qian 2004).

¹ In this study, the terms 'second language' and 'foreign language acquisition' are used interchangeably to refer to the process of acquiring another language than their mother language. Henceforth, the former will often be referred to as L2.

² The term 'context' is used here to refer to 'co-text,' which Yule (1996) defines as 'the linguistic environment in which a word is used.' That is the [texture environment] in which a word is used.

L2 lexical inferencing has been extensively studied by accounting for its different dimensions. Some studies have investigated into the students' use of knowledge sources, such as word and sentence knowledge within linguistic sources and world knowledge within non-linguistic sources (Haastrup 2008). Other studies have dealt with the inferential processes whereby students arrive at their conclusions for word meaning, and also with the degree of success of the lexical inferencing process (Haastrup 2008). In general terms, most research studies account for one or two of these dimensions (e.g. Haastrup 1991). In the present study, the following two dimensions are investigated into: learners' cognitive processes involved in lexical meaning interpretation, and the lexical inferencing success of their guesses.

Thus, the main purpose of this research study is, firstly, to identify the lexical inferencing strategies used by 6 university students of English as a foreign language in the course of a reading comprehension task. These participants form two different proficiency level groups: three of them are intermediate EFL learners and the other three make up a group of advanced EFL learners. Secondly, the study intends to establish a relationship between the type of lexical inferencing strategies used and L2 learners' depth of vocabulary knowledge. Thirdly, it also attempts to relate L2 learners' use of lexical inferencing strategies and their success in lexical inferencing strategy use.

The data collected for the study were elicited by means of the following tasks: a reading comprehension task, a semi-structured interview, and a test of depth of lexical knowledge. After the subjects read a text, they were asked to take part in an interview in which they verbalized their thoughts about the lexical inferencing strategies that they had

employed in the reading activity. Finally, the test that measured learners' depth of lexical knowledge was the widely used Word Associates Test designed by Read (1998a). The test was administered with the aim to measure how well learners were familiar with the meanings of 40 vocabulary items.

The resulting data were analyzed in order to identify, classify, and compare the students' lexical inferencing strategies. In addition, a correlation was established between the types of lexical inferencing strategies used by the participants and their depth of vocabulary knowledge. Finally the subjects' degree of lexical inferencing degree of success was identified and then related to lexical inferencing strategy use and to the learners' level of L2 reading proficiency.

The present dissertation comprises five sections. Following the Introduction, Section 2 presents a general review of the studies on lexical inferencing. It also includes a description of the general approaches to the study of lexical inferencing, as well as an overview of the factors that influence lexical inferencing success. It is relevant to point out that the current research on lexical inferencing has been mainly influenced by some theoretical models of L2 reading (e.g. Goodman 1967); particularly, the research into inferencing at text level and word level. In Section 3, the main body of the study conducted is presented. This includes objectives, the research questions, the theoretical framework, the methodology, and the analysis of results. The theoretical framework discusses Elgort and Nation's (2010) most recent conceptualizations of vocabulary knowledge and vocabulary learning in a second language. There is also a detailed account of Nassaji's (2004) taxonomy of lexical inferencing strategies, which are used in this

study to classify participants' lexical inferencing strategies found in the data. Section 3 finishes with a discussion of results organized on the basis of the specific objectives of the study. Finally, section 4 presents the conclusions drawn on the basis of the data analysis and results. This section also includes the projections and limitations of the research work, as well as some suggestions for further studies in the field.

2. GENERAL REVIEW OF THE LITERATURE

An examination of several studies on lexical inferencing and the comparison of different accounts of L2 lexical inferencing research reveals that the study made by Wesche and Paribakht (2010) is the most complete and adequate description of the subject. According to these linguists, research on lexical inferencing in a second language began in the 1970s with Carton's (1971) first publication of a study involving this process. At that time, lexical inferencing was considered an important process of L2 learners' acquisition of unknown morphemes and word forms in different contexts. In the view of this linguist, the term 'inferencing' involved the use of features and contexts that the L2 learner is familiar with when they attempt to identify something that is not familiar. He used the term 'vocalbe' in its larger sense to refer to a word, while focusing on its word meanings rather than on its formal composition as a group of sounds and letters. He defined 'cue' as any sign available for learners in L2 written texts that provide different kinds of information to help learners in the acquisition of new linguistic knowledge. In his research, he introduced three cue categories: 'intralingual cues' (for example, L2 markers that indicate word-class), 'interlingual cues' (from the L1 or another language; for example, cognates) and 'extralingual cues' (which are based on knowledge of the world). Although this early work paid almost no attention to the cognitive processes involved in lexical inferencing, it stimulated considerable interest among scholars in the field of L2 acquisition. Many researchers supported Carton's conceptualizations of the complex intellectual processes occurring in L2 language learning at a time when this was still viewed as behavioural skill learning.

In the early 1980s, lexical inferencing developed by means of research work on first language vocabulary acquisition via reading. The claim was made that the quick and great expansion in children's L1 vocabulary at school might be explained by their acquiring vocabulary through extensive reading. Thus, many educators began to think that reading could be viewed as the first stage involved in vocabulary mastery. As Wesche and Paribakht (2010: 6) report, this resulted in "increasing research on L2 reading comprehension, vocabulary learning through reading, and lexical inferencing, generally independent from but at least indirectly influenced by L1 studies."

Carton's work was enriched with contributions made by Bialystok's (1983, in Wesche and Paribakht 2010) experiments on the use of additional information to help L2 learners guess word meaning more effectively. In these experiments, L2 learners were provided with glossaries of difficult words in the text and instruction about how to proceed when making inferences. The results demonstrated that "both supplementary information and procedural instruction could improve L2 readers' inferencing for successful word comprehension" (Wesche and Paribakht 2010: 27).

Another important fact that contributed to the increasing interest in lexical inferencing was Sternberg and Powell's (1983) explanatory framework for the general inferencing processes. This framework was developed from a psychological standpoint and served all learning contexts. Later, Sternberg (1987 in Wesche and Paribakht 2010: 7) continued developing the framework through the addition of 3 basic knowledge acquisition processes that allow meanings to be inferred from contextual cues throughout L1: 'selective encoding,' which determines relevant information, 'selective combination,'

which combines relevant information from different cues with the general context, and ‘selective comparison,’ which links new information with knowledge already acquired (1987, in Wesche and Paribakht 2010: 7). As Carton, Sternberg (1987, in Wesche and Paribakht 2010: 7) also proposed a set of cues on which each of the processes referred to above operates. He proposed the notions, a) ‘temporal cues’ to describe the frequency of occurrence of the word in a given context; b) ‘spatial cues’ to describe the specific contexts a given word can be found; c) ‘class membership cues’ which are the word classes to which the word belongs; and d) ‘equivalence cues’ which involve a given meaning, such as an antonym of the word. Considering that Carton’s categorization of cues included both L1 and L2, his description is more comprehensive than the one proposed by Sternberg (1987).

Other descriptive studies of guessing word meaning by L2 students include a paper by Bensoussan and Laufer (1984) that showed a relationship between a high number of wrong guesses and poor text comprehension in a group of students of English as a foreign language; and another study by Liu and Nation (1985) that described some factors that influence contextual guessing.

An influential monograph on L2 lexical guessing appeared in the early 1990s. It was written by Haastrup (1991) and focused attention on word-guessing within the field of L2 learning. She used introspective and retrospective verbal protocols to analyze Danish secondary school learners’ thoughts as they tried to guess the meanings of unknown words in English texts. The introspective think-aloud protocol is a methodological approach that has been used in many subsequent studies around the

world. Haastrup (1991) built on Carton's (1971) work in her own investigation of the cue-types her participants reported using as they attempted to infer the meanings of unfamiliar words. These included linguistic cues from the target word itself and associated with linguistic knowledge of the L1, L2 or another known language (Ln), cues found in the co-text and readers' world knowledge. Haastrup also studied how successful the informants were when making inferences. Similarly, as Sternberg, she was interested in studying inferencing procedures, but the most relevant and innovative characteristic of her work was a description of the actual processes learners reported in their verbal protocols.

Various approaches have been used in the study of lexical inferencing. Two approaches to the study have been described by Haastrup (2008) in her study on lexical inferencing procedures: the lexical and the comprehension approaches. Applied linguists who have adopted a lexical approach have been mainly interested in researching the accuracy of word guess, that is, whether learners were successful in their lexical inferencing or not. The lexical perspective raised questions about whether the lexical inferencing procedures used by the learner led to the actual acquisition of the words. Another issue of interest in studies taking a lexical approach has been the identification of learners' sources of knowledge in lexical inferencing. Thus, researchers addressed questions such as: What kind of knowledge do learners use when they attempt to figure out the meaning of an unknown word? What kind of linguistic and non-linguistic sources do they use? Are these sources of knowledge intralingual or interlingual?

In Haastrup's (2008) description of the comprehension approach, she considers research done by Brown and Yule (1983), and Kintsch (1988) concerning discourse comprehension. These linguists contend that the process of inferencing occurs at text and word level. In this approach, inferencing is seen as connections that readers make when they try to interpret what they read. It includes links made between the elements found in the text and readers' previous knowledge of its content in order to build a mental representation of text meaning. Haastrup (2008 in Albrechtsen, Haastrup, and Henriksen: 70) argues that "while inferencing ability is considered essential for text comprehension and the reading process, lexical inferencing is crucial for word comprehension". Thus, Haastrup views lexical inferencing as a subcategory of text inferencing.

Recent studies on lexical inferencing (e.g. Wesche and Paribakht 2010) include an account of the methodologies used in this research. According to these linguists, one major distinction can be made between 'naturalistic' and 'manipulated' studies of lexical inferencing in L2 reading. In naturalistic studies "readers recorded or recounted to researchers how they dealt with unknown words" (2010: 9). And in manipulated studies researchers set up inferencing contexts to guide readers to specific words and particular "cognitive processing that might promote the retention of the new lexical item" (p. 9).

As for the factors that influence lexical inferencing when reading, studies have tended to report both inferencing attempts and readers' success in identifying appropriate meanings in context in terms of a variety of predictive factors. In relation to learners' attempts to infer meaning, a common behaviour among L2 readers is avoidance of unfamiliar lexical items. Ellis (1994) explains that learners avoid structures that are

difficult due to the existing differences between their mother tongue and the target language. For instance, in Paribakht and Wesche's (1999) study on word-guessing from context, students did not refer to the words they did not recognize as familiar, or explicitly they did not bother with them when they summarized the content of the texts they had to read. When learners have to resort to help, they may request assistance or consult a dictionary if these options are available. While asking another individual or consulting a dictionary for help may be a preferable means of identifying specific word meanings for some individuals in given contexts, and an effective means of confirming an inferred meaning (Fraser 1999, Kim 2003), these resources are not always available for learners. Lexical inferencing may often be the only resource available for readers when facing unfamiliar words. Thus, in spite of its uncertain outcome, particularly for L2 readers, it tends to be the main means by which they try to resolve vocabulary knowledge gaps as they seek to understand a text (Fraser 1999, Harley and Hart 2000, Kim 2003, Wesche and Paribakht 2010).

Among the many factors that influence L2 readers' attempt to infer meanings for an unknown word, the literature mentions text factors (for example, whether learners find a text difficult or not) (Sternberg 1987), word features, such as the importance of the word in the text (Parry 1993), the reader's perception of its general importance (Paribakht and Wesche 1999), or its importance for text comprehension (Brown 1993), and its grammatical class, (Paribakht and Wesche 1999).

Research on inferential success has identified factors that may influence the process of L2 lexical inferencing and lead to an appropriate and, consequently, successful

word meaning. When L2 students attempt to guess the meaning of words, success is far from being guaranteed. In spite of their persistence in attempting to infer the meaning of unfamiliar words, learners often fail to generate suitable meanings (Bensoussan and Laufer 1984, Haastrop 1991). This may be the result of having inadequate textual cues (Haynes 1993). Given the relevance of those cues for readers to infer word meanings, Li (1988) points out that they must meet three main requirements: they have to offer the information needed by the reader, they must be ‘perceptually and conceptually familiar’ to the reader, and they must be in the word itself or the immediate context. For example, in Haynes’ (1993) study, readers were more successful in guessing meanings for words with cues present in the word itself or in the adjacent text than for those words needing attention to the wider context. Sometimes L2 readers may not be able to identify the cues that are available because they do not have an adequate comprehension of the surrounding words and text. Such problems are generally related to their inadequate proficiency in the language for the given text. Another problem related to this is that readers may not have the knowledge to provide a precise guess. Learner factors that have received little attention in research include the attention they give to relevant details in the text and their ability and tendency to use the context effectively (Frantzen 2003). Another relevant but forgotten factor in the research literature on lexical inferencing is learners’ motivation to make a careful and significant effort to identify an appropriate contextual meaning (Dörnyei 1994). This factor has been covered in conceptualizations made by Laufer and Hulstijn (2001) in terms of learners’ involvement in carrying out a task.

3. THE STUDY

3.1. OBJECTIVES

3.1.1. General objective

The purpose of this study is firstly, to account for the lexical inferencing strategies used in a reading task by 3 intermediate level and 3 advanced level English as a foreign language university students and secondly, to relate them to a) the learners' depth of vocabulary knowledge, and b) their inferential success in deriving word meaning of unknown lexical elements in a text.

3.1.2. Specific objectives

3.1.2.1. To describe the lexical inferencing strategies used by intermediate level and advanced level EFL university students when they encounter unknown lexical elements in reading comprehension tasks.

3.1.2.2. To compare intermediate level and advanced level EFL students' lexical inference strategy use.

3.1.2.3. To assess intermediate level and advanced level EFL students' depth of vocabulary knowledge.

3.1.2.4. To determine intermediate level and advanced level EFL students' degree of inferential success in deriving the meaning of unknown lexical elements in a written text.

3.1.2.5. To establish a relationship between the learners' depth of vocabulary knowledge, their lexical inferencing strategy use, and their reading comprehension ability success.

3.2. RESEARCH QUESTIONS

3.2.1. What are the lexical inferencing strategies used by intermediate level and advanced level EFL students when they perform reading comprehension tasks?

3.2.2. What are the relationships between the students' lexical inferencing strategy use and their depth of vocabulary knowledge?

3.2.3. What are the relationships between EFL learners' lexical inferencing strategy use, their depth of vocabulary knowledge and their degree of inferential success in deriving the meaning of unknown lexical elements in a text?

3.3. THEORETICAL FRAMEWORK

The theoretical and framework underlying this study is related to the acquisition of vocabulary in a foreign language. It includes assumptions about the lexical inferencing process, categories of lexical processing strategies, models of reading comprehension, lexical inferencing as a comprehension strategy in L2 reading, and conceptualizations of L2 vocabulary knowledge. Vocabulary acquisition in a foreign language is viewed here from a cognitive perspective, and as such, it focuses on learners' mental processes of remembering, understanding, and producing vocabulary. From this perspective, this study aims to account for learners' underlying processes when new words are encountered, and for the type of information that learners use when trying to guess meaning, including linguistic and extra-linguistic cues for the target words.

3.3.1. The lexical inferencing process

Inferencing studies have developed through studies carried out by Carton (1971), Haastруп (1991), Nation (2001), and Nassaji (2004), among others. Different names have been given to the inferencing process. Some authors have used the term 'lexical guessing', a concept that includes the idea of informed guesses when dealing with unknown vocabulary (Carton 1971, Fan 2003); other applied linguists have used the term 'informed lexical guessing', for example, Bensoussan and Laufer (1984). In turn, Haastруп (2008: 13) defines the process of lexical inferencing as follows (as mentioned in Section 2):

The process of lexical inferencing involves making informed guesses as to the meaning of a word in the light of all available linguistic cues in combination with the learner's general knowledge of the world, their awareness of the co-text and their relevant linguistic knowledge.

Widely quoted in several studies, this definition combines the features existing in the text with the ones provided by the learner to form a meaningful whole of the inferences. Schmitt (2010) points out that Haastrup's way to define lexical inferencing goes beyond the concept of guessing the meaning of a word from context. In fact, Schmitt proposes that given the use of both learners' existing knowledge and the textual context in inferring the meaning of unknown words, lexical inferencing is best regarded "as qualified guessing of the meaning of lexical items in context, rather than guessing from context, as contextual cues are only one of several knowledge sources" (p. 32).

By adopting Haastrup's definition of the lexical inferencing process the present study integrates the comprehension perspective with the lexical angle discussed in the previous section. Thus, learner processes are elicited and analyzed, and the degree of inferencing success is also attended to. One recent study that included informants' knowledge sources, word guessing, and degree of lexical success is Haastrup's (2008), that focuses on inferencing procedures used by learners in two languages, Danish and English. According to this applied linguist, the inferencing process refers to how "informants try to guess the meaning of unfamiliar words placed in a context that is

comprehensible for them” (p. 67). One important finding confirms that informants’ level of education is of paramount importance in the quality of lexical inferencing including both the process and the product. Two other important predictors of L2 lexical inferencing are L2 vocabulary knowledge and L2 reading skills (Haastrup 2008).

Researchers have attempted to explain the lexical inferencing process mainly from two different viewpoints. At the early stages of investigation the main interest was the product of the inferencing process. Thus, some researchers such as Bensoussan and Laufer (1984) studied the degree of accuracy of the resulting inferences made by learners. In more recent years, the study of the inferencing process has been influenced by theories of discourse comprehension and lexical inferencing at text level. From this integrated perspective, some authors view this process as a whole in which learners’ interpretation of text meaning includes all levels of comprehension: the information of the text itself and learners’ previous knowledge (e.g. Haastrup 1991, Brown 1998). In addition to the attempts made to explain the inferencing process, there are many studies that have tried to answer the question of which factors contribute to lexical inferencing success (e.g. Qian 1999, Paribakht and Wesche 1993). Other researchers have described the knowledge sources participants draw on when using strategies (e.g. Mori 2002), while others have attempted to describe the processing aspect of inferencing (e.g. Haastrup 1991, Nassaji 2004).

3.3.2. Taxonomy of lexical inferencing strategies

In an attempt to describe the process of lexical inferencing, Nassaji (2004) proposes a taxonomy of strategies in which he identifies three main lexical inferencing strategy types: identifying, evaluating and monitoring. He defines identifying strategies as those that learners use to recognize unknown words in the text. He subdivides this category into three subtypes of strategies: repeating, word analysis, and word-form analogy. In turn, evaluating strategies are described as those that learners use in order to assess and check the accuracy of their inferences. This type of strategy contains two subtypes, verifying and self-inquiry. Finally, a third type of strategy is monitoring. This category is present when learners become aware of the type of problem they need to solve by assessing its ease or difficulty on the basis of their judgment of the hints available in the text. According to Nassaji's findings, there is an important relationship between depth of vocabulary knowledge and type of lexical inferencing strategy. Similarly, a significant relationship exists between depth of vocabulary knowledge and inferencing success. On the basis of Nassaji's proposals and his findings, his taxonomy of lexical inferencing strategies has been applied in this study. This taxonomic proposal offers an integrated view of the type of information learners may use when they attempt to guess the meaning of unknown words in context.

The categories and subcategories of the taxonomy together with examples from his transcripts are shown in Table 1.

1. Identifying

- a) Repeating: The learner repeats any portion of the text, including the word, the phrase, or the sentence in which the word has occurred. Example: “our beliefs *waver*... *waver*... *waver*... May be... *waver* is something beliefs *waver*...”
- b) Word analysis: The learner attempts to figure out the meaning of the word by analyzing it into various components, such as roots, affixes and suffixes. Example: “and smell of *sewage* in their noses... *sew*... *age*... should be a kind of smell. But *sew* is something ... maybe it is a kind of plant, wood.”
- c) Word-form analogy: The learner attempts to figure out the meaning of the word based on its sound or form similarity with other words. Example: “*squalor*... may be it is like *square*... *square*... It should be something like that.”

2. Evaluating

- a) Verifying: The learner examines the appropriateness of the inferred meaning by checking it against the wider context. Example: “but when we ourselves become ill, our beliefs *waver*... our beliefs change... change... when we become ill our beliefs change... yeah.”
- b) Self-inquiry: The learner asks himself or herself questions about the word or the meaning he or she has already inferred. Example: “*hazards* ... Should it be pollution according to the sentence? Pollutions? No, no... it should not be that... it may be something different.”

3. Monitoring

Monitoring: The learner shows a conscious awareness of the problem by judging its ease or difficulty. Example: “*contract* some of the serious and infectious diseases... *contract*... I think *contract* is is make from boss and the staff... *contract*... yes... this is easy... this maybe it’s difficult I’m not sure.”

Table 1: Nassaji’s taxonomy of lexical inferencing strategies (2004: 117)

In spite of the fact that this taxonomy offers an adequate classification of lexical inferencing strategies, it seemed necessary to add three subtypes of strategies: word class, added to the category of identifying strategies, and verifying: immediate context and verifying: wider context, added to the evaluating strategies to distinguish between the two types of context. This modification resulted in a subdivision of the evaluating category.

The three new subcategories added were defined as follows. Besides, for the purposes of clarification, examples of each of them are quoted from the data analyzed in the study. The word class was defined as the strategies used when the learner attempts to figure out the meaning of the word based on lexical classes associated to the target word. For example:

- (1) *Readily me suena a easily no sé, por ser un adverbio yo creo.* (Subject 6, advanced level student)

As for the two subtypes of evaluating strategies, verifying: immediate context strategies are those that learners use when they examine the appropriateness of the inferred meaning by checking it against the immediate context. For example:

- (2) *Como por lo que saco de ahí, como que ellos no se contagian, como que no les llegan otras enfermedades o algo así.* (Subject 3, intermediate level student)

On the other hand, the wider context counterpart of evaluating: verifying is defined as a strategy that learners use when they examine the appropriateness of the inferred meaning by checking it against the wider context.

- (3) *La otra, 'healing,' también lo asocio con algo negativo, pero en cuanto a medicina. Así como... los efectos tal vez... como de todos, todas estas otras cosas que se han nombrado antes.* (Subject 1, intermediate level student)

The modified taxonomy applied in the study is shown in Table 2.

1. Identifying	
a) Repeating (IR)	
b) Word analysis (IWA)	
c) Word-form analogy (IWF)	
d) Word class (IWC)	
2. Evaluating	
a) Verifying	i. immediate context (EVIC)
	ii. wider context (EVWC)
b) Self-inquiry (ES)	
3. Monitoring (M)	

Table 2: Modified taxonomy of lexical inferencing strategies

3.3.3. Reading comprehension

During the past 20 years, the cognitive processes involved in reading comprehension have been studied from the perspective of theories that describe the events occurring during reading (Graesser 2007). At its most global level, comprehension is the result of a number of cognitive processes and activities that include decoding of words, lexical access, syntactic processing, inference generation, reading strategies, and postreading activities. These processes and activities help readers to make connections between the meaning of sentences and the overall meaning of the text; thus, producing various levels of mental representations.

There is a great variety of elements and components that must be managed when reading. Graphemes and phonemes have to be considered; besides, the syntactic component is essential and responsible for organizing words in a sentence. Reading comprehension is defined as “a product of complex interactions between the properties of the text and what readers bring to the reading situation” (Magliano *et al.* 2007: 111). Readers must distinguish between new and old information in the text, and implicitly acknowledge what is shared among most readers in a community.

When readers make efforts to understand difficult words, the reading process seriously slows down to the extent that a breakdown at any level of comprehension may occur. Thus, the role of reading strategies is of great importance at this stage. There is not such a thing as effortless reading, because successful readers employ deliberate, conscious, time-consuming strategies to fix any reading component that is working in a

wrong way. There is the false belief that one comprehends text if the content words have been recognized and the sentences have been understood. On the contrary, “deep comprehension requires making inferences, linking ideas coherently, and a critical mind to judge the validity of claims and understanding the motives of authors” (Graesser 2007: 4). When readers encounter an unknown word, they are often unwilling to use a dictionary. There are also frequent occasions when the nearest dictionary is miles away. So the alternative strategy of inferring meaning in context is often advocated by instructors.

Over the last two decades, a number of theoretical models of text comprehension have been proposed by experts. Graesser (2007) contrasts three models of reading comprehension: the construction-integration model, the constructionist model, and the indexical hypothesis and embodiment model. Only the first two models are briefly described here because of their contributions made to the study of the lexical inferencing process.

The construction-integration model was proposed by Kintsch in 1988. It is framed within the bottom-up approach of information processing, and it is considered the most comprehensive model of reading comprehension. Two phases compose this model: the construction phase, in which knowledge that comes from textual input is activated in long-term memory, and the integration phase, in which the activated knowledge is placed in working memory. During comprehension, different levels of representation are constructed and when comprehension is successful, the representations at all these levels are naturally integrated by means of the construction-integration mechanism. This

mechanism works on the basis of a connectionist network that is repeatedly created, modified, and updated as each sentence or clause is read during the course of comprehension. The term 'node' is used to refer to "knowledge represented as an associative net which are concepts or propositions" (Kintsch 1988: 164). These nodes, consisting of a head and a number of arguments, may correspond to explicit components in the text and to components that are activated by making inferences from world knowledge. Thus, when a sentence is read, a set of nodes is activated in the network. These nodes include explicit and inferential information associated with that sentence, as well as the information that is held over in working memory from the previous sentence. The series of nodes are fully connected in a sort of 'connectivity matrix' that is ruled by the multiple levels of language and discourse. If two proposition nodes are closely related semantically, that is, if they share a common argument, they will activate the corresponding nodes, but if they are contradictory, the activation will be inhibited. It should not be forgotten that reading is a sequential activity, and that the limited capacity of working memory makes it impossible to keep the analyzing process ongoing for all the information; therefore, this model functions in a cyclical way.

In the constructionist model of reading comprehension (Graesser 2007), there are three main assumptions: reader goal, coherence, and explanation. The reader goal assumption explains that the reader focuses attention on the objectives present when reading the text. In turn, according to the coherence assumption, readers try to construct meaning representations that are connected and united at local and global levels. Therefore, if there is a coherence problem, the text motivates readers to think actively in

order to solve those problems by making inferences or reinterpreting the text. Finally, the explanation assumption states that good readers tend to generate explanations for all kinds of action. This mechanism helps readers analyze the causes and justifications of claims in the text. This theory has generated a number of predictions about inference generation and recall of text information that have been empirically tested and supported.

3.3.4. Lexical inferencing as a comprehension strategy in L2 reading

There is a great number of studies that concentrate on the undeniable relationship between vocabulary and reading comprehension. They all emphasize the fact that this relationship is a very close one and that it is bidirectional. In Schmitt's (2010) latest work on vocabulary research, he points out the importance of this relationship when quoting Nation (2001: 144): "vocabulary knowledge can help reading, and reading can contribute to vocabulary growth." In turn, the ability to understand vocabulary is closely related to the ability to make inferences.

Among the strategies used by L2 learners in performing reading tasks, lexical inferencing is viewed as an important and widely used comprehension process (Schmitt 2010). As Haastrup (2008: 70) states, "just as general inferencing ability is considered essential for text comprehension and the reading process, lexical inferencing is crucial for word comprehension." As a skill, reading comprehension involves responding to a text and making sense of it. Learners need to understand the language of the text at word, sentence and whole-text levels. In Wesche and Paribakht's (2010: 10) account of lexical inferencing studies, they observe that "in the 1990's the main interest of many empirical

studies involving L2 lexical inferencing was L2 reading comprehension or incidental vocabulary learning while reading.” In addition, they mention that in the context of intensive or extensive L2 reading programmes, a major line of investigation emphasized the growth of vocabulary from reading in ‘naturalistic’ and ‘manipulated contexts’. They suggest that in the reading comprehension process, incidental vocabulary acquisition takes place because “L2 readers are focused on comprehending text meaning rather than on the goal of learning new words” (p. 2).

Inferencing is associated with the global understanding of long pieces of discourse in which context may influence comprehension. Therefore, inferencing and meaning-guessing are products of contextualization. As such, EFL learners can possibly derive the meaning of unknown words using the immediate or wider context in which they appear, that is, a sentence or longer stretches of text (e.g. Clarke and Nation 1980, Chern 1993, Huckin and Bloch 1993, Rott 1999).

Several proposals have explained inferencing and meaning guessing. Prominent among these are the minimalist hypothesis proposed by McKoon and Ratcliff (1992) and the constructivist theory proposed by Graesser, Singer, and Trabasso (1994). McKoon and Ratcliff suggest that L2 learners make minimal use of meaning guessing as they rely little on their background knowledge and schemata while hearing or reading a text. Furthermore, this hypothesis assumes that inferencing only occurs locally when there are enough prompts at the most immediate level of sentence construction. Therefore, inferences are generated when there are cues available within the adjacent clause or

sentence in which the new word occurs. The constructivist hypothesis, however, suggests that L2 learners consistently make inferences and rely mostly on word guessing both locally and globally (Graesser, Singer, and Trabasso 1994). According to this model, schemata are in use while a learner is generating inferences for unknown words. Furthermore, according to Nassaji (2004), many a researcher asserts that there must be an adequate range of vocabulary deeply constructed in one's background knowledge (as schemata) in order for L2 learners to make heavy use of inferencing strategies to guess the meanings of new lexical items in context. In addition, training learners to employ metacognitive strategies has proved to be important in helping them to use lexical inferencing strategies (Prince 1996).

3.3.5. Depth of vocabulary knowledge

Research into L2 vocabulary learning has been developed by applied linguists who have conducted numerous studies whose main focus is the acquisition, teaching, use, and measurement of vocabulary (e.g. Nation 1990, Read 1993, Haastруп 2008). Among these studies, a frequent distinction is made between depth and breadth of vocabulary knowledge. The first dimension refers to the quality of vocabulary knowledge, namely, as defined by Read (2000: 211-212), "how well a word is known in terms of its meaning, its morphological, syntactic and collocational features. On the other hand, Elgort and Nation (2010: 92) understand the dimension of breadth of vocabulary knowledge as "the overall size of a learner's vocabulary". In a similar way, Nation (2001) previously stated that

given a particular stage of learners' language proficiency, their breadth of vocabulary knowledge refers to the number of words they know at a particular level.

Some significant conclusions have been drawn upon the role of depth of vocabulary knowledge in L2 lexical inferencing, particularly those that relate learners' depth of knowledge to the type of lexical inferencing strategy as well as to inferencing success (Haastrup 2008). As some authors have demonstrated, size of vocabulary knowledge has a significant role in readers' understanding of texts, while the quality of vocabulary knowledge plays a pivotal role in reading performance. Relevant findings show that knowledge of collocational, syntactic and morphological characteristics of words enhance L2 reading comprehension. According to Qian (1999), depth of vocabulary knowledge is a useful predictor of L2 reading performance and contributes to L2 reading comprehension more significantly than the quantity of vocabulary knowledge. For these reasons, in this research study, the focus is on learners' depth or quality of vocabulary knowledge. Several tests have been used to assess learners' depth of vocabulary knowledge. The one used in this study is the Word Associates Test (WAT) designed by Read (1993).

3.4. METHODOLOGY

3.4.1. The study participants

In the present experimental study, the participants were three EFL second-year university students and three EFL fourth-year university students. These subjects were randomly recruited on the basis of their time availability. At the time of the data collection, in 2011, 3 of them were intermediate level (second-year) students, and the other 3 were advanced (fourth-year) learners. The subjects' age ranged from 19 to 22 years of age. They were all undergraduate students of English Linguistics and Literature³ at the Facultad de Filosofía y Humanidades, Universidad de Chile. The intermediate level students had just completed their second year and the advanced learners had just finished their fourth year of study. On average, the students attend class weekly 6 to 7.5 hours.

3.4.2. Data elicitation

3.4.2.1. Tasks and instruments

In order to gather data on the participants' lexical inferencing strategies and measure their depth of lexical knowledge, the following tasks and instruments were used:

³ This BA course involves four years of study and comprises several courses in English linguistics, English literature and English language courses (namely, English phonetics and phonology, written discourse, oral discourse, applied grammar, semantics and pragmatics, history of the English language, applied linguistics and discourse analysis).

1. A reading comprehension task was used to gather information on the learners' lexical inferencing strategies. Two modified English texts were selected for this purpose, one for the intermediate learners and a different one for the advanced students.

The text selected for the intermediate students is entitled 'Health in the rich world and in the poor' (Appendix A, Text 1). It contains 374 words and 10 'target words'⁴ (in bold) for inferencing purposes. The text was designed by Haastrup (1991) in order to elicit the use of a variety of inferencing strategies, ranging from non-linguistic global comprehension processes to those that involve the use of word-level cues, such as prefixes and suffixes. In the original version of the text, there were two target words, *contract* and *curative*, whose meanings were supposed to be easily guessed by the participants. Since these words are Spanish cognates to Spanish participants, the researcher decided to replace them with less familiar lexical elements or expressions. Thus, *contract* was replaced by *come down with* and *curative* by *healing*.

The text used with the advanced students was an article called 'Secrets of straight-A students' (Appendix B, Text 2). It was published in *The Reader's Digest* (1992) and was written by Edwin Kiester, Jr. and Sally Valente Kiester. The designer of this text was Vaurio (1998) for the elicitation of information about lexical inferencing strategies. This text was modified by the present researcher in terms of length and number of presumably unknown lexical elements. The text contains 359 words and 10 target words.

⁴ The concept, 'target word', as part of an elicitation instrument is used by Haastrup to refer to the lexical elements chosen for students to use lexical inferencing strategies in reading comprehension tasks.

The target words for Text 1 are shown in Table 3.

Text 1: Target words: Intermediate level	
1.	<i>sewage</i>
2.	<i>waver</i>
3.	<i>assessing</i>
4.	<i>come down with</i>
5.	<i>squalor</i>
6.	<i>healing</i>
7.	<i>affluence</i>
8.	<i>unfathomable</i>
9.	<i>hazards</i>
10.	<i>permeated</i>

Table 3: Target words in Text 1: Intermediate level

The percentage of unknown words in the intermediate text is 2.67%⁵.

The target words above belong to the following lexical classes and meanings in context. This information was taken into consideration in order to identify the lexical inferencing strategies and their degree of success.

Text 1: Intermediate level

1. *Sewage* (Noun): the mixture of waste from the human body and used water that is carried away from houses by pipes under the ground.

⁵This percentage was obtained by dividing the total number of unknown words by the total number of words in the text and multiplying the result by 100.

2. *Waver* (Verb): to become weaker or less certain.
3. *Assess* (Verb): to make a judgement about a situation after thinking carefully about it.
4. *Come down with* (Verb): to get an illness.
5. *Squalor* (Noun): the condition of being dirty and unpleasant because of a lack of care or money.
6. *Healing* (Adjective): that can become healthy or strong again.
7. *Affluence* (Noun): the state of having plenty of money, nice houses, expensive things, etc.
8. *Unfathomable* (Adjective): too strange or mysterious to be understood.
9. *Hazards* (Noun; singular form: hazard): something that may be dangerous, or cause accidents or problems.
10. *Permeated* (Adjective): spread through every part of something.

Research has demonstrated that the lexical classes that attract readers' inferencing attempts more frequently are nouns and verbs (Paribakht and Wesche 1999). In text 1 there are 4 nouns, 3 verbs, and 3 adjectives.

The target words in Text 2 are listed in Table 4 below.

Text 2: Target words: Advanced level	
1.	<i>grinds</i>
2.	<i>klutzes</i>
3.	<i>dweebs</i>
4.	<i>ensemble</i>
5.	<i>student-body</i>
6.	<i>varsity</i>
7.	<i>valedictorian</i>
8.	<i>innate</i>
9.	<i>buckle down</i>
10.	<i>readily</i>

Table 4: Target words in Text 2: Advanced level

The percentage of unknown words in the advanced text is 2.79%.

The target words belong to the following lexical classes and meanings in context.

1. *Grinds* (Noun; singular form: grind): a student that never does anything except study.
2. *Klutzes* (Noun; singular form: klutz): someone who drops things and falls easily.
3. *Dweebs* (Noun; singular form: dweeb): someone who is weak, slightly strange, and not popular or fashionable.
4. *Ensemble* (Noun): a small group of musicians, actors, or dancers who perform together regularly.
5. *Student-body* (Noun): all of the students in a high school, college, or university, considered as a group.
6. *Varsity* (Noun): the main team that represents a university, college, or school in a sport.

7. *Valedictorian* (Noun): the student who has received the best marks all the way through school, and usually makes a speech at the graduation ceremony.
8. *Innate* (Adjective; of an ability or quality): something you are born with.
9. *Buckle down* (Verb): to start working very hard.
10. *Readily* (Adverb): quickly and easily.

Concerning the lexical classes in Text 2, there are 7 nouns, 1 verb, 1 adjective, and 1 adverb.

2. The Word Associates Test developed by Read (Read 1998a, and Read 1998b) was used to measure the learners' depth of vocabulary knowledge.

This test measures learners' depth of vocabulary knowledge through various semantic and collocational associations between a word and other words in the language. The test contains 40 items as stimulus words. Each item has 8 words divided into two groups, each containing 4. The words in one of the groups may help to explain the meaning of the stimulus word. The words in the other group are nouns that may come after the stimulus word in a phrase or in a sentence. Learners must choose four related words that have been selected to represent three main types of semantic relationship with the target word: paradigmatic relationships (i.e. the two words are collocates and co-occur in similar contexts), syntagmatic relationships (i.e. the two words often occur together), and analytic relationships (i.e. the associate represents the meaning of part of the word) (Appendix G). Below there is an example of a test item.

Word Associates Test WAT (Read 1993)
Sample item

sudden

<input type="checkbox"/> <i>beautiful</i>	<input type="checkbox"/> <i>quick</i>	<input type="checkbox"/> <i>surprising</i>	<input type="checkbox"/> <i>thirsty</i>	<input type="checkbox"/> <i>change</i>	<input type="checkbox"/> <i>school</i>	<input type="checkbox"/> <i>doctor</i>	<input type="checkbox"/> <i>noise</i>
---	---------------------------------------	--	---	--	--	--	---------------------------------------

There are four words in each set. The words on the left set may help to explain the meaning of *sudden*, and the words on the right set are nouns that may come after *sudden* in a phrase or sentence. *Sudden* means ‘happening quickly and unexpectedly,’ so the correct answers on the left set are *quick* and *surprising*.

The word *sudden* does not normally occur with *doctor* or *school*. We do not normally say *a sudden doctor* or *a sudden school*, but it often occurs with *change* and *noise*. Therefore, these words are the correct answers on the left set.

The students must select four words from the eight choices in the sets that they think are relevant to the stimulus word (‘sudden,’ in this example).

sudden

<i>beautiful</i>	<u><i>quick</i></u>	<u><i>surprising</i></u>	<i>thirsty</i>	<u><i>change</i></u>	<i>school</i>	<i>doctor</i>	<u><i>noise</i></u>
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3.4.3. Data collection procedures

3.4.3.1. Lexical inferencing task and semi-structured interview

Before collecting the lexical inferencing data, a pilot session took place with an intermediate L2 level student, one of the groups to participate in this study. This student was asked to read a text of similar difficulty as the one to be used in the study. He was asked to infer the meaning of 7 unknown words (Appendix C). This session showed that the student had a good overall comprehension of the text. When piloting the inferencing task, this researcher noticed that the student avoided explaining the words that he did not know (Appendix D). This avoidance behaviour proved useful to the researcher because she realized that the original instructions had to be modified to make them clearer to the participants upon doing the task.

The data to be collected through the lexical inferencing task and semi-structured interview were collected individually from the 6 subjects. They were first asked to read the text in silence and then were asked some general oral comprehension questions as a warm-up for the lexical inferencing task. Afterwards, the learners were asked to read the text individually again. Then they were asked to inform the researcher about their reasoning process while they were inferring the meaning of the target words. This think-aloud activity was carried out in Spanish in order to obtain detailed verbal protocols.

At the beginning of each individual session, the researcher gave the student the instructions for the lexical inferencing task in Spanish, both orally and in writing. The instructions are shown below.

Instrucciones

Este texto contiene 10 palabras (palabras en negrita), cuyo significado tendrás que explicar en tu lengua materna y sin la ayuda del diccionario. Después de leer el texto en silencio, deberás responder preguntas sobre tu comprensión general del contenido. Luego, leerás el texto por segunda vez y, finalmente, se te solicitará que expliques el significado de cada una de las palabras marcadas en negritas. Di el significado de la palabra si lo sabes. Si no lo sabes, intenta explicarlo con tus propias palabras. Puedes recurrir al texto cada vez que sea necesario. No puedes dejar ninguna palabra sin explicar. Todas tus explicaciones se grabarán ya que son fundamentales para esta investigación.

Gracias por tu colaboración.

After the student had read the instructions, the researcher clarified -in Spanish- the unclear points about them. After the learners had finished their first reading of the text, the researcher asked them some general oral comprehension questions, such as the following,

- (4) *What is the main idea of the text?*
- (5) *What did you understand from the reading?*
- (6) *What is the conclusion of the reading?*

During the lexical inferencing task, the subjects were allowed to consult the text whenever they felt it was necessary. In addition, the researcher avoided making any comments about the participants' performance. She also avoided responding to questions about the text or the target words or the pronunciation of the words. The researcher did not make any gestures of approval or disapproval when the participants were inferring the meanings of the unknown words. Each individual interview lasted about 40 minutes, on average. All the interviews were audio-taped and later transcribed orthographically (Appendices E and F).

3.4.3.2. The vocabulary knowledge test: Word Associates Test (WAT)

The Word Associates Test was administered in two different sessions. The 3 intermediate participants took the test simultaneously in one session, and the 3 advanced students took the test, also simultaneously, in a different session. Each group took 40 to 50 minutes to complete the test.

At the beginning of the session, after handing out the tests, the researcher asked the students to read the instructions and the example silently. She then answered the questions that the participants asked about the test.

Instructions for taking the Word Associates Test:

This is a test of how well you know the meaning of adjectives that are commonly used in English.

Each item looks like this:

sudden

<input type="checkbox"/> <i>beautiful</i>	<input type="checkbox"/> <i>quick</i>	<input type="checkbox"/> <i>surprising</i>	<input type="checkbox"/> <i>change</i>	<input type="checkbox"/> <i>doctor</i>	<input type="checkbox"/> <i>noise</i>
<input type="checkbox"/> <i>thirsty</i>			<input type="checkbox"/> <i>school</i>		

There are eight words in the two boxes (left and right boxes).

The words here on the left side may help to explain the meaning of sudden.	The words here on the right side are nouns that may come after sudden in a phrase or a sentence.
<i>Sudden</i> means <i>happening quickly and unexpectedly</i> , so the correct answers on the left side are <i>quick</i> and <i>surprising</i> .	We do not normally say <i>a sudden doctor</i> or <i>a sudden school</i> , but we often say <i>a sudden change</i> and <i>a sudden noise</i> , so <i>change</i> and <i>noise</i> are the correct answers on this side.

From the two boxes, select four words that you think are relevant to the stimulus word (*sudden* in this example), according to the criteria mentioned above.

sudden

<i>beautiful</i> <u><i>quick</i></u> <u><i>surprising</i></u> <i>thirsty</i>	<u><i>change</i></u> <i>doctor</i> <u><i>noise</i></u> <i>school</i>
--	--

Note: In this example, there are two correct answers on the left and two on the right, but this is only an example. Do not assume there is a consistent number of correct answers on the left or on the right. Just remember: try to find four related words for each item.

Source: <http://www.lex tutor.ca/tests/associates/>

During the administration of the test, the participants were discouraged from either consulting dictionaries or asking the researcher for any help. They were asked to answer the 40 items (Appendix G). No time restriction was set.

3.4.4. Data analysis

3.4.4.1. Lexical inferencing task

The following steps were taken in the analysis of the verbal protocols:

1. Orthographic transcriptions of the six think-aloud protocols provided by each interview. Each protocol lasted 40 minutes on average.
2. Classification of the lexical inferencing strategies within the descriptive categories of the taxonomy. This involved examining each participant's answers for each target word. This classification was made on the basis of the participants' production of the verbal protocols and descriptions of categories and subcategories of the taxonomy proposed by Nassaji.
3. Addition of qualitative comments for each target word about the use of lexical inferencing strategies.
4. Quantification of the number of lexical inferencing strategies for each target word.
5. Quantification of the number of categories and subcategories of lexical inferencing strategies used for each target word.
6. Assessment of the degree of success of the inferencing attempt for each target word. The degree of inferential success was categorized as successful (correct), partially successful (approximate or partially correct meaning was given), or unsuccessful (incorrect). Unsuccessful attempts, those defined as semantically and syntactically

deviant, were represented by 0. The attempts that were partially successful, i.e. those defined as semantically appropriate but syntactically deviant, were represented by 1. Those attempts that were successful, i.e. defined as syntactically, semantically, and contextually appropriate, were represented by 2. All the responses were analyzed and rated by two independent analysts, this researcher and an English linguistics teacher. The total number of attempts to interpret all the target vocabulary items were 60 (10 target items X 6 informants). However, in the think-aloud protocols, two participants reported that they knew one of the target items. Consequently, the number of responses was reduced to 58.

7. Calculation of the degree of inferential success for each target word by each participant according to a scoring system described in the section 3.5. Analysis and discussion of results.

8. Comparison between the lexical inferencing strategies used by the intermediate and advanced learners participating in the study.

9. Determining the correlations holding between the use of lexical inferencing strategies and degree of inferential success.

3.4.4.2. Word Associates Test

The following steps were taken to process the Word Associates Test results:

1. Scoring the test items on line for each test to obtain the numbers and percentages of correct answers.
2. Comparing the test scores of the intermediate level subjects and the advanced subjects.
3. Establishing the relationships between the learners' depth of vocabulary knowledge and their level of inferential success.

3.5. ANALYSIS AND DISCUSSION OF RESULTS

The discussion of the results is organized on the basis of the specific objectives formulated for this research study. The first and second objectives are:

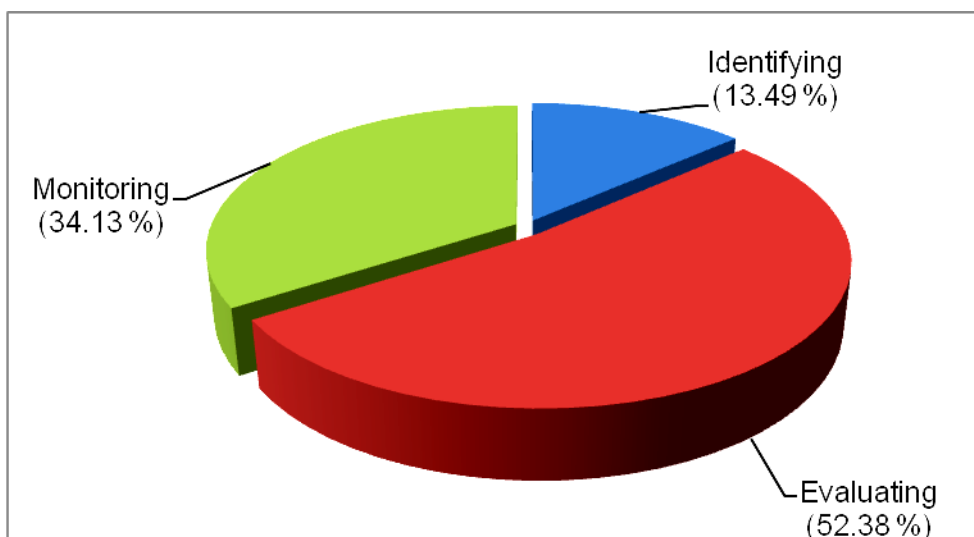
1. To identify the lexical inferencing strategies used by intermediate-level and advanced-level EFL university students when encountering unknown words in reading comprehension tasks.
2. To compare intermediate and advanced-level EFL students' lexical inferencing strategy use.

The overall results show that the total number of lexical inferencing strategies used by the six intermediate and advanced level participants was 126. The intermediate level participants reported the use of 62 strategies, which represents 49.2% of the total amount of strategies. In their turn, the advanced level subjects employed a slightly higher number, 64, which represents 50.8% of the total number of strategies. The types of lexical inferencing strategies used by the intermediate level and advanced level subjects, together with corresponding quantitative results are shown in the Table 5.

Types of lexical inferencing strategies	Intermediate students		Advanced students		Total number of strategies	Total percentage
	Number of strategies	Percentage	Number of strategies	Percentage		
Identifying	5	8.06%	12	18.74%	17	13.49%
Evaluating	31	50.0%	35	54.69%	66	52.38%
Monitoring	26	41.94%	17	26.57%	43	34.13%
Total number of strategies	62 (49.2%)	100%	64 (50.8%)	100%	126	100%

Table 5: Categories of lexical inferencing strategies used by intermediate level and advanced level participants.

In terms of the presence or absence of categories of lexical inferencing strategies in both groups of participants, intermediate and advanced, the three major categories are present in decreasing frequency of occurrence: evaluating, monitoring, and identifying. Evaluating strategies were the most frequent category in the two groups (52.38%). Out of 66 evaluating strategies, 31 were used by the intermediate level subjects, and 35 by the advanced level subjects. Monitoring strategies were the next most frequent (34.13%), with 26 occurrences in the intermediate level subjects' data, and 17 occurrences in the advanced level group. Finally, identifying strategies were the least frequent category (13.49%) reported by both groups, with 5 cases in the intermediate group, and 12 cases reported by the advanced level subjects. The overall percentages of strategies used by both groups are shown in Graph 1 below.



Graph 1: Overall percentages of strategies used by intermediate-level and advanced-level students

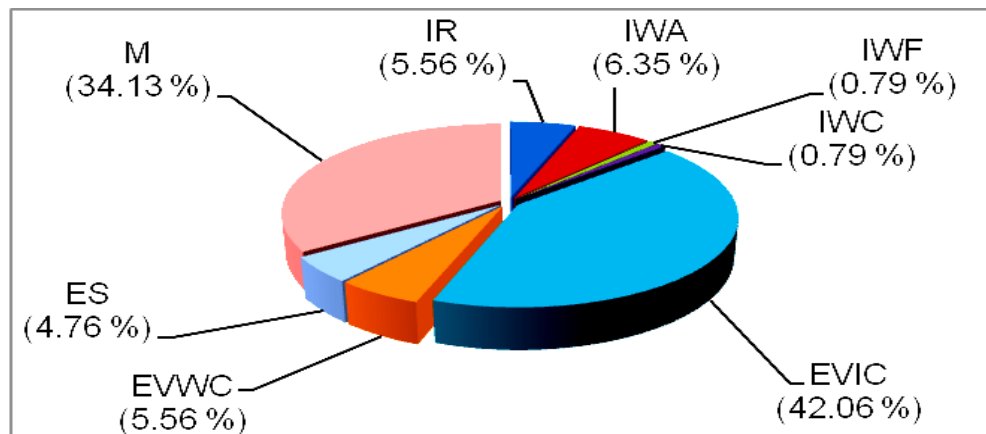
As for the subcategories of strategies, the one with the highest number of occurrences in both groups (53) was evaluating: verifying: immediate context, which represents 42.06% of the total amount of strategies identified in the study. This suggests that the adjacent context surrounding an unknown word was crucial for the learners to be able to infer its meaning. Contrasting results occurred for the subjects' use of evaluating: verifying: wider context, whose frequency of occurrence was 7, representing only 5.56% of the total number of substrategies employed by both groups. As Table 6 shows, more than half of the number of the occurrences of the evaluating: verifying: immediate context substrategy corresponds to the advanced learners (34), while all the occurrences (7) of evaluating: verifying: wider context belong to the intermediate level subjects. This suggests that the advanced level subjects resorted to specific information present in adjacent text chunks and benefited more from their inferencing attempts. On the contrary,

the intermediate level participants went beyond the cues close to the target word in that they used the resources provided by the general context. This may be explained by their lower level of proficiency if they are compared to the advanced level participants. In fact, they had two years of English language training at university whereas the advanced students had completed their four years of study. In turn, the self-inquiry subcategory was not frequently used by both groups of learners: 5 cases were reported by the intermediate students versus 1 by the advanced learners. This phenomenon may be explained by the fact that the advanced learners have a higher level of proficiency, which makes them more confident than the intermediate students. Thus, there is no need for the advanced students to express doubts about their knowledge of the language or ask questions about their initial lexical inferences.

The numbers and percentages of categories and subcategories of lexical inferencing strategies used by the intermediate and the advanced students are shown in Table 6 and Graph 2.

		Intermediate students		Advanced students				
Types of lexical inferencing strategies		Number of strategies	Percentage	Number of strategies	Percentage	Total	Percentage	
Identifying	Repeating		2	3.22%	5	7.81%	7	5.56%
	Word analysis		3	4.84%	5	7.81%	8	6.35%
	Word-form analogy		0	0%	1	1.56%	1	0.79%
	Word class		0	0%	1	1.56%	1	0.79%
	Total number of Identifying strategies		5	8.06%	12	18.74%	17	13.49%
Evaluating	Verifying	immediate context	19	30.65%	34	53.13%	53	42.06%
		wider context	7	11.29%	0	0.00%	7	5.56%
	Self-inquiry		5	8.06%	1	1.56%	6	4.76%
	Total number of Evaluating strategies		31	50.0%	35	54.69%	66	52.38%
Monitoring	Monitoring		26	41.94%	17	26.57%	43	34.13%
	Total number of Monitoring strategies		26	41.94%	17	26.57%	43	34.13%
Total number of lexical inferencing strategies		62	100%	64	100%	126	100%	

Table 6: Numbers and percentages of lexical inferencing strategies used by the intermediate and the advanced students



Graph 2: Overall percentages of subcategories of strategies used by the intermediate and the advanced students

IR: Identifying: repeating

IWA: Identifying: word analysis

IWF: Identifying: word-form analogy

IWC: Identifying: word class

EVIC: Evaluating: verifying: immediate context

EVWC: Evaluating: verifying: wider context

ES: Evaluating: self-inquiry

M: Monitoring

In order to compare the lexical inferencing strategy use of both groups of learners, a detailed account of their use of subcategories of strategies and examples of each of them is presented below.

Subcategories used by the intermediate level participants

Among the intermediate level participants, the most frequent strategy used was evaluating, with a total number of 31 cases (50%). As defined by Nassaji (2004: 116), this category comprises those strategies “that learners use to evaluate and check the accuracy of their initial inferences.” Within this category, evaluating: verifying: immediate and wider context strategies accounted for 19 and 7 cases, respectively.

In turn, the subcategory of evaluating: self-inquiry was used in 5 instances. Examples of each subcategory of strategies used by this group of learners are given below.

(7) Evaluating: verifying: immediate context (EVIC)

Target word: *squalor*

La otra es squalor, ahí sí que no, tampoco... eh... comida, dinero y... que puede ser... va por ahí, pero... no lo imagino. Lo asocio con alguna cosa necesaria, o sea, algo que es necesario, pero no sé que es.

(8) Evaluating: verifying: wider context (EVWC)

Target word: *sewage*

Como que entiendo el contexto en general, pero la palabra no.

(9) Evaluating: self-inquiry (ES)

Target word: *assessing*

Eh... examinar la medicina ¿moderna?

The second frequency of occurrence belonged to the monitoring type, with a total of 26 cases (41.94%). This category is not subdivided into subcategories. The monitoring category has been described as “a strategy used by learners when they show an awareness of the nature of the problem by judging its ease or difficulty of the word based on the available cues in the text” (Nassaji 2004: 116). An example of this category is presented below.

(10) Monitoring (M)

Target word: *squalor*

La otra es squalor, ahí sí que no, tampoco... eh... comida, dinero y... que puede ser... va por ahí, pero... no lo imagino. Lo asocio con alguna cosa necesaria...

Finally, identifying strategies occurred in 5 instances (8.06%), including the subcategories of word analysis and repeating, occurring in 3 and 2 instances, respectively. Identifying strategies have been defined as those that learners use “to identify the meaning of the new word in the text” (Nassaji 2004: 116). There was no use of the subcategories of identifying: word-form analogy and

identifying: word class. In the taxonomy applied in this study, the monitoring category has been described as metacognitive in nature, while evaluating and identifying strategies have been described as cognitive. However, it can be claimed that the evaluating category is also metacognitive in that “it makes use of knowledge about cognitive processes and constitutes an attempt to regulate language learning” (Ellis 1994: 538). Some examples for each identifying subcategory are provided below.

(11) Identifying: word analysis (IWA)

Target word: *waver*

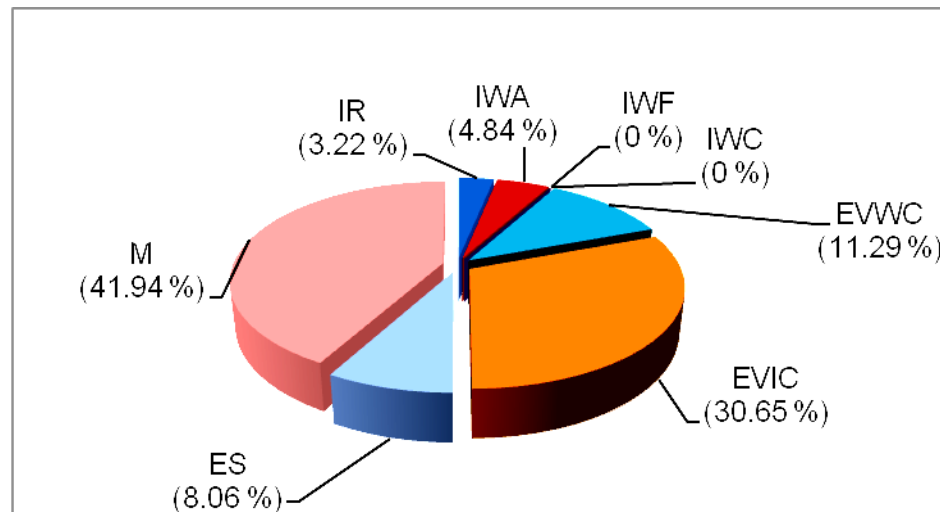
Por wave como que me suena a... como que fuera en aumento la... también lo asimilo con lo de wave.

(12) Identifying: repeating (IR)

Target word: *sewage*

No sé lo que significa, pero es algo que provoca mal olor, por ejemplo esto: dust between their toes, pero no sé...

Percentages of subcategories used by this group of learners are shown in Graph 3.



Graph 3: Percentages of subcategories of strategies used by the intermediate level students

IR: Identifying: repeating

IWA: Identifying: word analysis

IWF: Identifying: word-form analogy

IWC: Identifying: word class

EVIC: Evaluating: verifying: immediate context

EVWC: Evaluating: verifying: wider context

ES: Evaluating: self-inquiry

M: Monitoring

Subcategories used by advanced level participants

The most frequent category used by the subjects in this group was evaluating, with 35 cases (54.69%). Unlike the intermediate learners, the subcategory of evaluating: verifying: wider context was absent, while evaluating: verifying: immediate context and evaluating: self-inquiry occurred in 34 and 1

cases, respectively. As mentioned above, likewise the intermediate learners, the monitoring strategy was second in the frequency of occurrence, with 17 instances (26.57%). The frequency of use of identifying strategies by the advanced learners was similar to that of the intermediate learners in that they were the least frequent category, with 12 cases reported (18.74%). Within this category, word analysis and repeating strategies were both used in 5 instances, while both identifying: word-form analogy and identifying: word class strategies were reported once each.

Some examples of the subcategories used by this group of learners are presented below.

(13) Evaluating: verifying: immediate context (EVIC)

Target word: *ensemble*

En ensemble, también porque dice: canta en un choral ensemble; se me imagina que debe ser algo así como un grupo coral. Aparte que después dice que: student's council y después mathematics society.

(14) Evaluating: self-inquiry (ES)

Target word: *klutzes*

Esta palabra nunca en mi vida la había visto pero me imagino que es... que son ñurdos para el ¿deporte?

(15) Monitoring (M)

Target word: *valedictorian*

Valedictorian es una palabra muy complicada. No sé lo que significa y están hablando de alguien que sabe mucho.

(16) Identifying: word analysis (IWA)

Target word: *grinds*

Pero en realidad creo que no es... no es imperativo saber lo que significa porque con el adjetivo está bien explicado.

(17) Identifying: repeating (IR)

Target word: *klutzes*

Klutzes me imagino que es la palabra... también se entiende por el contexto. Porque dice: they are klutzes for... y eso me imagino que son personas nulas en los deportes.

(18) Identifying: word-form analogy (IWF)

Target word: *innate*

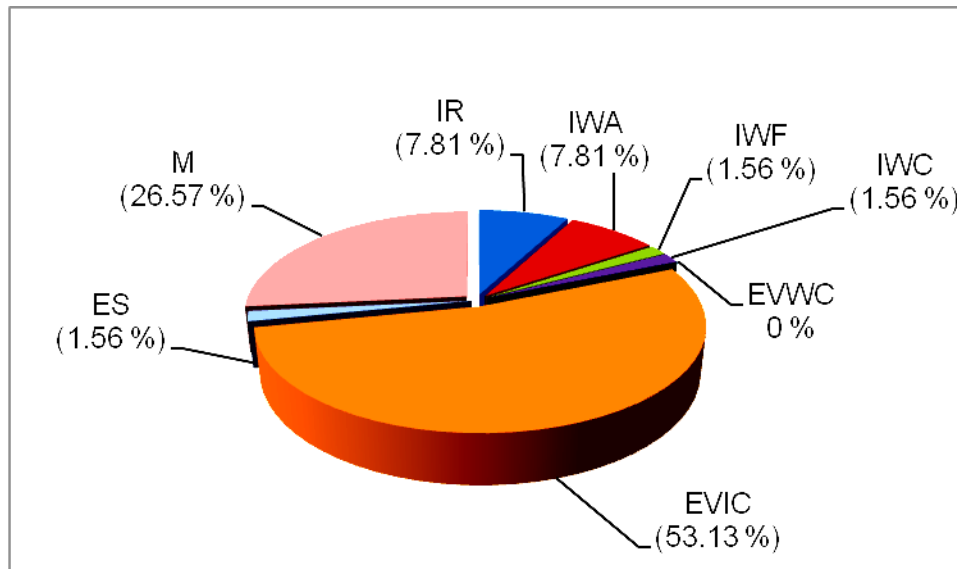
Innate, bueno las habilidades internas, como innate en inglés.

(19) Identifying: word class (IWC)

Target word: *readily*

Readily me suena a easily, no sé, por ser un adverbio yo creo. No

sé...



Graph 4: Percentages of subcategories of strategies used by the advanced level subjects

IR: Identifying: repeating

IWA: Identifying: word analysis

IWF: Identifying: word-form analogy

IWC: Identifying: word class

EVIC: Evaluating: verifying: immediate context

EVWC: Evaluating: verifying: wider context

ES: Evaluating: self-inquiry

M: Monitoring

Summing up, both groups of learners used the three types of categories of lexical inferencing strategies in the same order of frequency, namely, from the most frequent to the least frequent one: evaluating, monitoring, and identifying. The similarity between the two groups can be explained by the fact that the intermediate and advanced students belonged to the same academic programme. Therefore, they have received the same training in their years of study at university, two and four years of study for intermediate and advanced learners, respectively. They were regularly trained in checking their oral and written output carefully. Thus, evaluating was the most frequent category because all the learners checked their initial inferences more frequently than students belonging to university programmes which do not train students whose main subject is English and English linguistics. For example, in a study made by Nassaji (2004), the most frequent category used by learners taking short ESL courses in Canada was identifying, whose main purpose is to use repetition, word analysis, or word-form analogy in order to infer the meaning of the unknown word in the text.

As for the monitoring strategy, which was second in the order of frequency of use by the two groups of learners, Nassaji (2004: 166) defined it as a metacognitive strategy in which “the learner shows an awareness of the nature of the problem by making an explicit judgment about the ease or difficulty of the word based on the specific available cues in the text”. The nature of this strategy may contribute to explaining why monitoring reached the second frequency of

occurrence. As mentioned above, in the university programme that the students were taking, they were trained to use metacognitive strategies in various academic subjects. This metacognitive strategy training is acknowledged by Doddis and Novoa (1999-2000) in their longitudinal study of language learning strategies used by similar university students.

The factors that may explain why identifying strategies were the least frequent among the participants in the study were their strategic behaviour and level of competence in the target language. As these learners were in their second and fourth year of study, they already had a fairly good level of strategic behaviour when performing language tasks. Thus, at their stage of acquisition, they did not tend to focus on the unknown lexical items in the text. They instead used their linguistic and non-linguistic knowledge to adequately complete the language task.

Concerning differences between the two groups of students, the results show that advanced learners used evaluating strategies more frequently than the intermediate learners (54.69% versus 50%). It cannot be claimed that the difference is a significant one since it is only 4.69%. A less significant difference between the intermediate and advanced learners is their use of identifying strategies. The results show that the advanced learners used identifying strategies more frequently than the intermediate learners (18.74% versus 8.06%). A factor

that may explain this difference is the fact that advanced learners had a high level of competence in the target language. Thus, as they become more knowledgeable and proficient in the second language, their use of identifying strategies becomes more varied: they reported using all the subcategories of identifying strategies. Similarly, the use of the monitoring strategy by the intermediate level subjects was 41.94%, while the advanced level subjects used it less frequently (26.57%). The fact that the advanced learners in this academic programme tend to focus on the completion of the task that they have been asked to do rather than on making remarks about the simplicity or difficulty of the specific task that they have to complete may account for this difference. As explained above, since the advanced learners have a high command of the target language, they tend to focus on the specific problem they have to solve.

On examining the subtypes of strategies, the most frequent one was evaluating: verifying: immediate context, with 34 instances among the advanced level participants, representing 53.13% of the total number of strategies used by this group. On the other hand, there were 19 cases reported by the intermediate level learners, which amount to 30.65% of the total number of strategies used by this group. The number of monitoring strategies among the advanced students was 17, which represents 26.57% of the total number of strategies, while the frequency of use of this strategy among the intermediate participants was 26, that is, 41.94% of the total number of strategies used.

The intermediate learners reported only 7 cases of the evaluating: verifying: wider context substrategy, which represents 11.29% of the total number of strategies. Slightly lower was the frequency of use of the evaluating: self-inquiry subtype, with 5 instances, that is, 8.06% of the total number of strategies. On the contrary, among the advanced learners there was no use of the evaluating: verifying: wider context substrategy, whereas there was only 1 instance of the evaluating: self-inquiry substrategy, which represents 1.56% of the total number of strategies reported by this group of learners. Regarding identifying strategies, two subtypes of strategies were reported by the intermediate learners: identifying: word analysis and identifying: repeating, used in 3 and 2 instances by this group, respectively, each amounting to 4.84% and 3.22%. The advanced learners, on the other hand, showed a more varied use of identifying strategies, reporting the use of all the subcategories: repeating, word analysis, word-form analogy, and word class. The number of cases indicates a less frequent use: in identifying: repeating and identifying: word analysis. There were 5 instances of each type, which is 15.62% of the total number of strategies; and in identifying: word-form analogy and identifying: word class, there was 1 instance of each substrategy, which is 3.12% of the total number of strategies.

In order to gain other insights into how L2 learners make lexical inferences in a reading task, the qualitative analysis of two verbal protocols, one

belonging to an intermediate learner (subject 1) and the other one to an advanced student (subject 4), is presented below.

Comparative individual case analysis

The intermediate learner (subject 1) resorted to various strategies in order to perform the lexical inferencing tasks. In most cases, this learner used several strategies to infer word meaning. Only in one instance did the participant use only one strategy to infer the meaning of the word unknown.

Two extracts from this intermediate learner's verbal protocol are presented below.

(20) Target word: *sewage*

Como que entiendo el contexto en general, pero la palabra no. No sé lo que significa, pero es algo que provoca mal olor, por ejemplo esto: dust between their toes, pero no sé... como algo negativo. Podría asociarla pero no me acuerdo.

In the attempt above, the learner used 5 strategies or substrategies, i.e. evaluating: verifying: wider context; monitoring; identifying: repeating; monitoring, and monitoring. This learner understands the wider context of the target word and expresses their awareness of the difficulty. They know that the

word is unknown to them, but indicate that they understand the information provided in the context.

(21) Target word: *waver*

Ésta me da la impresión de que es como... que... como que... significa algo también como un poco negativo, como dice: our beliefs waver como que bajan, como que decaen, no sé, como un descenso.

Here, the subject uses 4 lexical inferencing strategies: monitoring; identifying; repeating; evaluating; verifying; immediate context; and monitoring. The learner uses the section of the text in which the target word has occurred in an attempt to infer its meaning. Finally, the participant resorts to the immediate context of the word to guess its meaning. In these two extracts, it is worth highlighting that the learner made several attempts to infer the meaning of the target word; besides, they used the same types and subtypes of strategies, monitoring being the most frequent lexical inferencing strategy used.

On the other hand, one of the advanced learners (subject 4) attempted to infer the meaning of the unknown words by using several strategies for each of the target words. Two extracts from this learner's think-aloud protocol are presented below.

(22) Target word: *grinds*

La primera palabra es grinds. Yo creo que, bueno, entiendo que es un sustantivo. Lo que me ayudó- yo creo es la palabra dull... y, aparte por el contexto, están hablando de los nerds. Me imagino que es un sustantivo que denota algo no muy agraciado, o algo que es más bien fome. Debe ser alguna entidad que... yo creo que denota eso. Literalmente, no sé lo que significa. Pero, en realidad, creo que no es... no es imperativo saber lo que significa porque con el adjetivo está bien explicado. Se entiende la idea.

The advanced learner used identifying: word analysis; evaluating: verifying: immediate context; monitoring; and identifying: word analysis. First, the learner used the lexical class of the target word and then the context in which the word appeared in order to guess its meaning. The words surrounding the target word helped the learner clarify the meaning of the unknown word.

(23) Target word: *varsity*

La otra palabra, varsity, se me hace que es una categoría porque dice: he plays varsity soccer y después junior varsity basketball y, entonces, cuando combinan junior con varsity, se me imagina algo como, no sé, cuando como a uno le dicen 'cadete'. Algo así como las categorías, como

de los deportes se me imagina que es algo así. Y siempre, bueno debe ser como lo que viene después del junior.

In this case, the subject used identifying: repeating; evaluating: verifying: immediate context; evaluating: verifying: immediate context; and evaluating: verifying: immediate context. The learner repeats the word and the section of the text surrounding the word. The learner uses the immediate context to guess the meaning of the word.

Just as the intermediate learner, this advanced subject used a variety of types and subtypes of strategies, evaluating: verifying: immediate context being the most frequent subtype of strategy used.

The third specific objective was:

3. To assess intermediate-level and advanced-level EFL students' depth of vocabulary knowledge.

In order to measure and compare the learners' depth of vocabulary knowledge, the Word Associates Test was administered. Concerning scoring, each word correctly chosen was marked as 1 point. A wrong choice would be marked as 0. Consequently, the maximum possible score was $40 \times 4 = 160$ points for the 40 test items. Thus, a learner's total score was equivalent to the total number of correct choices that he made. As Table 7 shows, the highest scores,

ranging from 137 (86%) to 142 (89%), were obtained by some advanced level learners, while the lowest scores, ranging from 122 (76%) to 135 (84%), were obtained by some intermediate level learners. Thus, there are differences between the two groups, although not striking ones. These differences can be explained by the different language competence levels that the intermediate and advanced learners have. Thus, at their stage of acquisition, the advanced students have higher vocabulary knowledge than the intermediate students.

	Intermediate level students			Advanced level students			Number of questions
	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5	Subject 6	
Correct answers	132	122	135	142	137	141	160
% of correct answers	83%	76%	84%	89%	86%	88%	100%

Table 7: Scores obtained by the intermediate level and advanced level learners in the Word Associates Test

The fourth specific objective is:

4. To determine the intermediate and advanced level EFL students' degree of inferential success in deriving word meaning of unknown words in a text.

As mentioned in the data processing section, the degree of inferential success was assessed with a scale that represented three types of attempts:

unsuccessful, partially successful, and successful (Nassaji 2004). This scale ranged between 0 and 2. Taking both groups of learners into consideration, the total number of responses was 58 (two responses were omitted since one student in each group reported they knew one target word). Twelve (20.7%) of the 58 responses correspond to successful lexical inferences, 22 (37.9%) responses were partially successful, while 24 (41.4%) correspond to unsuccessful inferences.

Considering the total number (12) of successful inferences in both groups of learners, 9 (75%) correspond to the advanced students and 3 (25%), to the intermediate learners. As for the partially successful inferences, out of a total of 22, 14 (63.6%) correspond to the advanced students, and 8 (36.4%), to the intermediate students. In terms of unsuccessful inferences, out of a total of 24, a great proportion of them, 18 (75%), was produced by the intermediate students, and only 6 (25%), by the advanced learners (See Table 8).

Students' proficiency level	Successful inferences	Partially successful inferences	Unsuccessful inferences	Total
Intermediate	3	8	18	29
Advanced	9	14	6	29
Total	12 (20.7%)	22 (37.9%)	24 (41.4%)	58 (100%)

Table 8: Numbers and percentages of lexical inference degree of success achieved by the intermediate and advanced learners

Regarding the intermediate learners, out of the 29 responses, only 3 (10.3%) were successful inferences, 8 (27.6%) were partially successful, and 18 (62.1%) were unsuccessful inferences (See Table 9).

Number and percentages of inferences: Intermediate learners				
	Successful inferences	Partially successful inferences	Unsuccessful inferences	Number of responses
Subject 1	1	2	7	10
Subject 2	1	3	5	9
Subject 3	1	3	6	10
Total	3 (10.3%)	8 (27.6%)	18 (62.1%)	29 (100%)

Table 9: Intermediate learners' inferential degree of success

Examples of intermediate learners' different degrees of inferential success follow.

(24) Successful inference

Infiriendo por el hecho... porque se parece al español, que cada célula se ¿permea?

(25) Partially successful inference

Esa supongo que se refiere a algo desconocido, y en cierta forma ¿oscura?

(26) Unsuccessful inference

O sea por el contexto sé que es algo negativo. Que habla como de los... de lo que distingue a los países pobres de... pero, como que no se me ocurre que puede ser específicamente.

In turn, among the advanced learners, out of their 29 responses, 9 (31.2%) correspond to successful inferences, 14 (48.2%) were partially successful inferences, and 6 (20.6%) correspond to unsuccessful inferences (See Table 10).

Number and percentages of inferences: Advanced learners				
	Successful inferences	Partially successful inferences	Unsuccessful inferences	Number of responses
Subject 4	1	5	3	9
Subject 5	4	5	1	10
Subject 6	4	4	2	10
Total	9 (31.2%)	14 (48.2%)	6 (20.6%)	29 (100%)

Table 10: Advanced learners' degree of inferential success

Examples of the advanced learners' different degrees of inferential success follow.

(27) Successful inference

La otra palabra es student-body, y me imagino que es como una especie de... como alguien que está en el centro de alumnos y es la persona que es del centro de alumnos; que forma parte del cuerpo de estudiantes de la universidad.

(28) Partially successful inference

Klutzes me imagino que es la palabra... también se entiende por el contexto. Porque dice: they are klutzes for... y eso me imagino que son personas nulas en los deportes. Alguien nulo, alguien que no sabe.

(29) Unsuccessful inference

La otra es come down with. Yo creo que es algo como negativo también un poco. A lo mejor no tanto, pero más negativo que neutro. Como que... me da la impresión de que los doctores no se la pueden con algunas enfermedades serias.

As Tables 8, 9, and 10 above show, the number of successful and partially successful inferences were higher for the advanced learners than for the intermediate students, while the proportion of unsuccessful inferences was much smaller for the former group of students than for the latter. Therefore, the advanced learners were more successful in deriving the correct meaning of unknown words in context than the intermediate students. The higher number of successful inferences on the part of the advanced learners can be explained by their higher level of proficiency. This proficiency level involved a better knowledge of morphological and syntactic features. Apart from that, these learners have two more years of training in the development of metacognitive skills.

The fact that there is a high number of unsuccessful inferences in this study is not surprising since similar findings have been reported in various studies

(e.g. Nassaji 2004, Riazi and Babaei 2008). In relation to this, Paribakht and Wesche (2006: 119) state that, “In spite of its pervasive use in reading comprehension, lexical inferencing in an L2 frequently fails”. In addition, Bengelil and Paribakht (2004) state that some studies have shown that although inferencing is a preferred reading comprehension strategy among L2 readers, it is not always efficient for them.

Regarding the degree of inferential success in this study, it should be mentioned that L2 learners’ ability to infer meanings appropriately depends on various factors. For example, applied linguists such as Paribakht and Wesche (2006) and Nassaji (2004) have mentioned factors that may have a bearing on lexical inferencing success: the target word features, the text that contains the word, the amount of textual information that the text provides, learners’ ability to use knowledge of the world cues, the importance of the word for comprehending the text, the degree of cognitive and mental efforts that the task involves, etcetera. In order to find a possible reason for the results of lexical inferencing success in the present study, learners’ inferences for each target word were carefully examined. On analyzing the degree of lexical inferential success, two variables were further examined: first, the lexical class of the target words and second, the strategy and substrategy category that the learners used in correct and incorrect inferencing.

First, in terms of the lexical class of the target words and the intermediate and the advanced learners' degree of success in deriving their meanings, the successful inferences were examined. Out of a total of 12 successful inferences, nouns concentrated most of them (8). This number of successful inferences for nouns was to be expected since there are 11 nouns in the twenty target words. Other classes that were successful were adverbs, (2 successful inferences), and verbs and adjectives (one successful inference for each of them). Similarly, out of a total of 22 partially successful inferences, 15 corresponded to nouns, followed by adjectives, which amounted to 6 partially successful inferences, and, finally, a verb that got a partially successful inference on the part of one student (See Tables 11 and 12).

Intermediate students					
Target words	Lexical classes	Subject 1	Subject 2	Subject 3	
1	<i>sewage</i>	noun	partially successful	partially successful	unsuccessful
2	<i>waver</i>	verb	unsuccessful	unsuccessful	unsuccessful
3	<i>assess</i>	verb	unsuccessful	partially successful	unsuccessful
4	<i>come down with</i>	verb	unsuccessful	unsuccessful	successful
5	<i>squalor</i>	noun	unsuccessful	unsuccessful	partially successful
6	<i>healing</i>	adjective	unsuccessful	no inference	partially successful
7	<i>affluence</i>	noun	unsuccessful	unsuccessful	unsuccessful
8	<i>unfathomable</i>	adjective	unsuccessful	partially successful	unsuccessful
9	<i>hazards</i>	noun	successful	unsuccessful	unsuccessful
10	<i>permeated</i>	adjective	partially successful	successful	partially successful
Number of inferences		10	9	10	
Total					29

Table 11: Relationship between the lexical classes of the target words and degree of success by the intermediate level students

Advanced students					
Target words	Lexical classes	Subject 4	Subject 5	Subject 6	
1	<i>grinds</i>	noun	unsuccessful	partially successful	partially successful
2	<i>klutzes</i>	noun	partially successful	successful	successful
3	<i>dweebs</i>	noun	partially successful	partially successful	partially successful
4	<i>ensemble</i>	noun	successful	successful	successful
5	<i>student-body</i>	noun	partially successful	successful	partially successful
6	<i>varsity</i>	noun	partially successful	partially successful	unsuccessful
7	<i>valedictorian</i>	noun	partially successful	partially successful	successful
8	<i>innate</i>	adjective	no inference	partially successful	partially successful
9	<i>buckle down</i>	verb	unsuccessful	unsuccessful	unsuccessful
10	<i>readily</i>	adverb	unsuccessful	successful	successful
Number of inferences		9	10	10	
Total					29

Table 12: Relationship between the lexical classes of the target words and degree of success by the advanced level students

Regarding the lexical class of the target words and intermediate and advanced learners' degree of success in deriving their meanings, the unsuccessful inferences were then examined. Considering that out of a total of 58 inferences, 24 were unsuccessful, it is worth exploring the possibility of a connection between the lexical class and the lexical inferencing substrategies. Thus, when taking a closer look at the lexical class of the target words and the different subtypes of strategies that the participants used when their inferences were unsuccessful, it is not possible to identify any common patterns of strategy use that may lead to the conclusion that there is a connection between the lexical class of the target words and the lexical inferencing substrategies used by the learners (See Tables 13 and 14).

Subject	Target word	Lexical class	Frequency of strategy use
3	sewage	noun	(1)EVWC, (1)M
1 2 3	waver	noun	(1)IR, (1)EVIC, (2)M (1)EVIC (2)IWA
1 3	assess	verb	(1)M, (1)EVIC (1)EVIC, (1)ES, (1)M
1 2	come down with	verb	(1)EVWC, (2)M (1)EVIC
1 2	squalor	noun	(1)EVIC, (1)M (1)EVWC, (2)M
1	healing	adjective	(1)M, (1)EVWC
1 2 3	affluence	noun	(1)M, (1)EVWC (1)M, (1)EVIC (1)M, (1)EVIC
1 3	unfathomable	adjective	(1)M, (1)EVIC (1)M, (1)EVIC
2 3	hazards	noun	(1)M, (1)EVIC (1)M, (1)EVIC
Total frequency of strategy use			IR = 1 IWA = 2 EVIC = 12 EVWC = 5 ES = 1 M = 18

Table 13: Analysis of unsuccessful inferences by the intermediate learners

Subject	Target word	Lexical class	Frequency of strategy use
4	grinds	noun	(2)IWA, (1)EVIC, (1)M
6	varsity	noun	(1)M, (1)EVIC
4 5 6	buckle down	verb	(3)M, (1) EVIC, (1)IR (2)EVIC (1)EVIC, (1) IWA, (1)M
4	readily	adverb	(1)M
Total frequency of strategy use			IR = 1 IWA = 3 EVIC = 6 M = 7

Table 14: Analysis of unsuccessful inferences by the advanced learners

To sum up, the analysis described above gave no clear indication of which variables played a significant role in successful, partially successful, and unsuccessful lexical inferencing.

Finally, the fifth objective was:

5. To establish a relationship between the learners' depth of vocabulary knowledge, their lexical inferencing strategy use, and their degree of lexical inferential success.

This involved examining the relationship between depth of vocabulary knowledge and strategy types and degree of lexical inferential success. In order to fulfil this last objective, the learners were first classified into two groups

according to their scores obtained in the Word Associates Test, which measured their depth of lexical knowledge. They were classified as intermediate or advanced students . Their scores in the depth of vocabulary knowledge test were rather high; therefore, a percentile rank of 85 for the scores was established. This rank allowed the researcher to find out how well a given learner performed in comparison to other learners. According to this rank, the participants were classified into two groups: 'lexically skilled' learners (LS), if their scores fell above the 85th percentile, and 'lexically less skilled' learners (LLS), if their scores fell at or below the 85th percentile. Thus, the lexically skilled group was composed of 3 subjects, who belonged to the advanced level group. In contrast, the lexically less skilled group was constituted by the 3 intermediate learners in the study.

Secondly, the mean of inferencing success for each strategy used by the two group learners was calculated dividing the sum of each learner's success scores (on the scale of 0 to 2) by the frequency of the strategy used (Nassaji 2004). To exemplify this calculation, an example is provided.

Lexically less skilled students used the monitoring strategy 26 times. Using the three-point scale (0-2) of degree of lexical inferencing success, a different score was given to each use of this strategy according to whether learners used it successfully (2), partially successfully (1), or unsuccessfully (0). As LLS learners used the monitoring strategy successfully once, 2 points were

assigned. In turn, learners used the strategy partially successfully 7 times, so 1 point was given per each instance (7). Finally, as these learners used the monitoring strategy 18 times unsuccessfully, 0 point was given. Thus, the sum of LLS learners' degree of success scores is 9 (2+7+0). This sum was divided by 26 (the frequency of use of the monitoring strategy) resulting in 0.34, which is the mean of success for that strategy in this group of learners (Table 15).

Types of lexical inferencing strategies			Lexically skilled versus lexically less skilled	Frequency of strategy use	% of strategy use	Mean of success
Identifying	Repeating		Skilled	5	7.81%	1
			Less skilled	2	3.22%	0.5
	Word analysis		Skilled	5	7.81%	0.8
			Less skilled	3	4.84%	0.3
	Word-form analogy		Skilled	1	1.56%	1
			Less skilled	0	0.00%	0
	Word class		Skilled	1	1.56%	2
			Less skilled	0	0.00%	0
Evaluating	Verifying	immediate context	Skilled	34	53.13%	1.14
			Less skilled	19	30.65%	0.52
		wider context	Skilled	0	0.00%	0
			Less skilled	7	11.29%	0.14
	Self-inquiry		Skilled	1	1.56%	2
			Less skilled	5	8.06%	1
Monitoring			Skilled	17	26.57%	0.88
			Less skilled	26	41.94%	0.34
Total			Skilled	64	50.80%	1.06
			Less skilled	62	49.20%	0.43

Table 15: Types of strategy used and degree of success in lexically skilled versus lexically less skilled learners

As shown in Table 15, LS and LLS students differed significantly in their overall rate of success in inferring word meaning in context. The overall mean of success for the LS group is significantly higher than that for the LLS group, 1.06 versus 0.43. In fact, there is a common and general pattern present in the two groups since in all of the substrategies the mean of success for LS learners was higher than that for LLS learners. There was one exception in the evaluating: verifying: wider context substrategy since there were no occurrences of that substrategy in the LS learners. Consequently, the mean of success for the LLS was obviously slightly higher. A two-way chi square test conducted on the proportions of unsuccessful, partially successful, and successful inferences for the groups of LS and LLS learners showed that the proportions of successful, partially successful and unsuccessful inferences were significantly different between the two groups, indicating that the degree to which learners were able to infer word meaning successfully was related to their group membership, that is, whether they were lexically skilled or less skilled learners ($\chi^2 = 10.63$, $df = 2$, $p = 0.005$).

Lexically skilled and less skilled learners also differed in terms of the use of different types of strategies. Thus, LS learners made more frequent use of identifying strategies than did LLS learners, that is, repeating 7.81% versus 3.22%; word analysis 7.81% versus 4.84%; word-form analogy 1.56% versus 0%; and word class 1.56% versus 0%, respectively. Similarly, the means of success of

these strategies were higher for LS than for LLS learners (1 versus 0.5; 0.8 versus 0.3; 1 versus 0; and 2 versus 0, respectively). A similar phenomenon occurred between the LS and LLS learners in terms of the frequency of evaluating strategies, particularly concerning evaluating: verifying: immediate context, which LS learners used more frequently than LLS learners (53.13% versus 30.65%, respectively). The mean of success for this strategy was 1.14 for the LS group and 0.52 for the LLS learners. In contrast, LLS learners used the evaluating: verifying: wider context substrategy more frequently than LS learners (11.29% versus 0%, respectively). The mean of success for this strategy was 0.14 for LLS learners and 0 for LS learners. In turn, LLS learners made more frequent use of the self-inquiry substrategy than LS learners (8.06% versus 1.56%, respectively). The mean of success of this strategy, however, was higher for the LS group than for the LLS group (2 versus 1). Similarly, the successful use of monitoring strategies was significantly different among the two groups. LLS learners made more frequent use of this strategy than the LS group (41.94% versus 26.57%). However, the mean of success for this strategy again was higher among the LS group than for the LLS group (0.88 versus 0.34).

4. CONCLUSIONS

The conclusions that can be drawn from the study carried out will be presented in this section according to the three research questions serving as guidelines in this study. The first research question was the following:

- i. What are the lexical inferencing strategies used by the intermediate level and advanced level EFL students when performing reading comprehension tasks?

The results indicate that both of the groups of learners, intermediate and advanced students of English as an L2, used the three categories of lexical inferencing strategies when they performed a reading task, namely, identifying, evaluating and monitoring. The number of strategies used by the advanced learners was slightly higher than that used by the intermediate learners (64 versus 62). Considering the number of participants in this study (6) and the number of target words in each text (10), the learners in both groups used a high number of lexical inferencing strategies (126). This suggests that these participants were motivated to complete the task assigned, and the reading materials were adequate for the inferencing task.

As regards the lexical inferencing categories used by both groups of learners, the evaluating strategies were the most frequently used (52.38%). They

were followed by the monitoring strategies (34.13%) and by the identifying strategies (13.49%). Evaluating and monitoring can be viewed as metacognitive strategies, because both are processes that involve “one’s knowledge concerning one’s own cognitive processes or anything related to them” (Flavell 1976: 232). In other words, metacognition has to do with the active monitoring and regulation of cognitive processes. Bearing this in mind, the high frequency of occurrence of evaluating and monitoring may be explained by the fact that the participants belonged to the same academic programme, in which they were encouraged to develop and use metacognitive strategies in their second language acquisition process. In turn, identifying strategies have been characterized as cognitive in nature. Thus, a learner manipulates the learning material itself by analyzing and transforming the specific learning elements involved in the task. For example, they may repeat the unknown word, or the section that contains the word.

Concerning the differences between the use of evaluating, monitoring and identifying strategies between the intermediate and advanced learners, the frequency of use of evaluating strategies was higher for the advanced students than for the intermediate group (54.69% versus 50%, respectively). Likewise, advanced learners’ frequency of use of identifying strategies was almost twice as high as that of the intermediate group (18.74% versus 8.06%, respectively). On the contrary, the frequency of use of monitoring strategies by the intermediate students was higher for than that by the advanced learners (41.94% versus

26.57%, respectively). One reason that may explain this phenomenon is that the advanced learners were more focused on the completion of the task than the intermediate learners, who were inclined to judge how difficult or easy the task was.

In terms of differences in strategy subtypes, the advanced learners made uneven use of evaluating substrategies. Thus, these learners did not use the evaluating: verifying: wider context subtype, whereas evaluating: verifying: immediate context was employed with a frequency of 53.1%, and evaluating: self-inquiry was used significantly less frequently, 1.56%. In turn, the intermediate learners' use of the evaluating strategies subtypes was different from that of advanced learners in that the 3 subtypes were used by them. In fact, the intermediate students used the immediate context (30.65%) more frequently than the wider context (11.29%). Finally, these students questioned their initial inferences more frequently than the advanced learners: their use of self-inquiry was higher (8.06%) than that of the advanced learners (1.56%). As regards the identifying subtypes, the advanced learners used the 4 subtypes. The use of identifying: repeating and identifying: word analysis reached 15.62%, while the other two subtypes, word-form analogy and word class amounted only to 3.12%. In contrast, the intermediate students' use of identifying substrategies focused on only two, repeating and word analysis (3.22% and 4.84%, respectively). This difference in the number of subtypes of identifying strategies used may suggest

that because the advanced learners had a higher level of competence in the target language they were able to resort to varied strategies.

The second research question was:

- ii. What is the relationship between the students' lexical inferencing strategy use and their depth of vocabulary knowledge?

After analyzing the results obtained by the learners in the depth of vocabulary knowledge test, they were divided into two groups according to their scores in the test. Thus, those learners who had achieved the higher scores were categorized as lexically skilled learners, while those who had had lower scores constituted the lexically less skilled group. This classification matched the two different proficiency levels that the learners belonged to, namely, intermediate and advanced. Therefore, the answer to the second research question is found in the response to the first one, which attempted to identify and compare the use of lexical inferencing strategies made by the intermediate or lexically less skilled learners, and by the advanced or lexically skilled learners.

The third research question was:

- iii. What is the relationship between EFL learners' lexical inferencing strategy use, their depth of vocabulary knowledge and their degree of inferential success in deriving word meaning of unknown words in a text?

Despite the low number of subjects, important differences were found between the two groups, particularly in relation to their use and variety of lexical inferencing strategies, their depth of vocabulary knowledge, and their degree of success in deriving word meaning in context. As previously mentioned, the advanced learners' use of lexical inferencing strategies was slightly higher than that of the intermediate learners, and their depth of lexical knowledge was also higher than that of the intermediate students. The degree to which the learners were able to infer word meaning successfully was related to whether they were lexically skilled or lexically less skilled learners. Lexically, the skilled learners were more successful than the lexically less skilled learners in deriving word meaning in context. These results correlate with those obtained in other studies in that there is a relationship between learners' depth of vocabulary knowledge and their ability to succeed in inferring meanings of unknown words in reading comprehension tasks (cf. Haastrup 2008, Paribakht and Wesche 2006, Qian 2005 and Nassaji 2004). These findings add to the general understanding of the complex nature of L2 lexical inferencing, and have shown the crucial importance of vocabulary knowledge for successful inferencing.

The theoretical framework used in this study is based on proposals made by several researchers that have investigated into lexical inferencing strategies as a cognitive process that is central in reading comprehension in an L2. These proposals allowed this research work to be integrated and updated considering

that it included previous investigations and the most recent work in the field. The approach taken in this study is an integrated one, i.e. it combines the lexical and the comprehension approach to lexical inferencing research. This means that there is an identification of learners' processes and an analysis of the degree to which learners are successful in their lexical inferencing attempts.

Regarding the taxonomy applied, this was functional and adequate for the identification and subsequent classification of the lexical inferencing strategies used by the participants in the study. Probably due to the complexity of the learners' underlying cognitive procedures in lexical inferencing, the classification process turned out to be more difficult than expected. In order to better classify those strategies, it was necessary to subdivide the evaluating: verifying strategies into wider and immediate context. Additionally, the identifying: word class subtype of strategy was added to the subtypes of identifying strategies. Regarding the taxonomy, it would be useful, in further research, to provide a more detailed characterization of the evaluating and identifying strategies to facilitate the classification process.

It is important to highlight the valuable contribution of the concurrent think-aloud protocols, an introspective method used to have access to learners' cognitive processes. These protocols provided the researcher with relevant data on the learners making explicit their inferential process involved in working out the

meanings of the target words in the reading task. More importantly, the learners were asked to provide think-aloud protocols in their mother tongue as a way of allowing them to focus on the task and their thoughts rather than on the formulation of thoughts in the L2.

As regards the reading material chosen for this study, it should be borne in mind that successful lexical inferencing is heavily dependent on the ability to understand a written text as a whole. Thus, the two written texts used were suitable since the learners were able to produce analyzable think-aloud protocols. However, in future studies, learners should be asked to use lexical inferencing strategies when reading texts on different topics in order to identify possible changes in their strategic behaviour.

The findings made in the present study need to be supported by further research. Bearing in mind that the number of subjects participating in the study was small, it is not possible to project the findings to a wider population. Therefore, in future research it would be necessary to include a larger number of participants. Besides, it would be useful to do research into the lexical inferencing strategies used by students who have different purposes in studying English as a foreign language (e.g. science students). In addition, some knowledge sources serving as cues for lexical inferencing were not directly addressed in the present study. In recent years, research has focused on linguistic and non-linguistic

knowledge sources that learners use when performing a reading task. It would be interesting to identify the knowledge sources used by Chilean students of English as a foreign language in order to gain a deeper understanding of L2 lexical inferencing.

Finally, this study has aimed at identifying and comparing the lexical inferencing strategies used by two groups of university students in a reading task and to relate them to the learners' depth of vocabulary knowledge and to their inferential success in deriving word meaning of unknown words in a text. The analysis of the learners' think-aloud protocols and their varying depths of vocabulary knowledge assessed by the Word Associates Test have helped achieve these aims.

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APPENDIX A

Text 1

Reading comprehension text for intermediate-level subjects

Health in the rich world and in the poor

An American journalist, Dorothy Thompson, criticizes the rich world's health programmes in the poor world. She describes her trip to Africa where she got food poisoning and her friend malaria:

“The town is very dirty. All the people are hot, have dust between their toes and the smell of **sewage** in their noses. We both fell ill, and at ten o'clock in the morning I got frightened and took my friend to the only private hospital in town, where you have to pay. After being treated by a doctor, we caught the next aeroplane home.

“Now, I believe that the money of the World Health Organisation (WHO) should be spent on bringing health to all people of the world and not on expensive doctors and hospitals for the few who can pay. But when we ourselves become ill, our beliefs **waver**. After we came back to the States we thought a lot about our reaction to this sudden meeting with health care in a poor country. When **assessing** modern medicine, we often forget that without more money for food and clean water to drink, it is impossible to fight the diseases that are caused by infections.

Doctors seem to overlook this fact. They ought to spend much time thinking about why they themselves do not **come down with** some of their serious and infectious diseases that so many of their patients die from. They do not realize that an illness

must find a body that is weak either because of stress or hunger. People are killed by the conditions they live under, the lack of food and money and the **squalor**. Doctors should analyze why people become ill rather than take such a keen interest in the **healing** effect of medicine.

In the rich world many diseases are caused by **affluence**. The causes of heart diseases, for instance, are far from being mysterious and **unfathomable** – they are as well-known as the causes of tuberculosis. Other diseases are due to **hazards** in the natural conditions in which we live. Imagine the typical American worker on his death-bed: every cell **permeated** with such things as chemicals and radioactive materials. Such symptoms are true signs of an unhealthy world.

Words in bold correspond to the target words of the lexical inferencing task.

APPENDIX B

Text 2

Reading comprehension text for advanced-level subjects

Secrets of straight-A students

Everyone knows about straight-A students. We see them frequently in TV sitcoms and in movies like *Revenge of the Nerds*. They get high grades, all right, but only by becoming dull **grinds**, their noses always stuck in a book. They're **klutzes** at sports and **dweebs** when it comes to the opposite sex.

How, then, do we account for Domenica Roman or Paul Melendres?

Roman is on the tennis team at Fairmont (W.Va.) Senior High School. She also sings in the choral **ensemble**, serves on the student council and is a member of the mathematics society. For two years she has maintained a 4.0 grade-point average (GPA), meaning A's in every subject.

Melendres, now a freshman at the University of New Mexico, was **student-body** president at Valley High School in Albuquerque. He played **varsity** soccer and junior- varsity basketball, exhibited at the science fair, was chosen for the National Honor Society and National Association of Student Councils and did student commentaries on a local television station. **Valedictorian** of his class, he achieved a GPA of 4.4 — straight A's in his regular classes, plus bonus points for A's in two college-level honors courses.

How do super-achievers like Roman and Melendres do it? Brains aren't the only answer. "Top grades don't always go to the brightest students," declares Herbert Walberg, professor of education at the University of Illinois at Chicago, who has

conducted major studies of super-achieving students. “Knowing how to make the most of your **innate** abilities counts for more. Infinitely more.”

In fact, Walberg says, students with high I.Q.s sometimes don’t do as well as classmates with lower I.Q.s. For them, learning comes too easily and they never find out how to **buckle down**.

Hard work isn’t the whole story, either. “It’s not how long you sit there with the books open,” said one of the many A students we interviewed. “It’s what you do while you’re sitting.” Indeed, some of these students actually put in fewer hours of homework time than their lower-scoring classmates.

The kids at the top of the class get there by mastering a few basic techniques that others can **readily** learn.

Words in bold correspond to the target words of the lexical inferencing task.

APPENDIX C

Pilot reading text (247 words)

Genetic engineering

Have you wondered what it would be like to have an exact copy of yourself? It may not be as far off as you think. Researchers have long been interested in the idea, and scientific **breakthroughs** in this area have received a great deal of both positive and negative media coverage. The focus of much of the attention has been Dolly, a sheep that scientists in Scotland recently managed to **clone**. While she is hailed as a miracle by some, others worry that this first cloning may **inadvertently** set off a wave of unpredictable events. Who knows what the new technology might **trigger**? Scientists could breed clones of animals and humans for use in scientific experiments or to act as organ donors. People could have themselves copied in a quest for eternal life. Religious cults might wish to create younger copies of their aging leaders. Obviously, most people would **intuitively** reject such uses of the new technology. However, once such technology is available, it is difficult to ensure that it is properly controlled. Most countries still have not developed policies to deal with cloning and similar activities. This lack of action may well **backfire** if nothing is done soon. Unless medical facilities are carefully controlled, for example, criminals could **snoop** through doctors' files to find the secret to cloning. Even more worrying is the potential for women to be forced to use their bodies to incubate cloned babies. Who knows what will happen? Only time will tell.

Words in bold correspond to the target words of the lexical inferencing task.

APPENDIX D

Orthographic transcriptions of subjects' protocols

Intermediate-level subjects

Subject 1

1. Sewage

“Como que entiendo el contexto en general, pero la palabra no. No sé lo que significa, pero es algo que provoca mal olor, por ejemplo esto, *dust between their toes*, pero no sé...como algo negativo. Podría asociarla pero no me acuerdo.”

2. Waver

“Esta, *waver* no sé como se dice..., me da la impresión de que es como que...como que significa algo también como un poco negativo, pero es así como, como dice *our beliefs waver* como que bajan, no sé como que se, como que decaen, no sé, como un descenso.”

3. Assessing

“Como... no sé, me da la impresión que es como investigar, parece, no sé si la había visto antes, creo, algo así. Es como cuando inspeccionan la medicina moderna, me da la impresión.”

4. Come down with

“La otra es *come down with*. Yo creo que es algo como negativo también un poco, a lo mejor no tanto, pero más negativo que neutro. Como que, me da la impresión de que los doctores no se la pueden con algunas enfermedades serias, eso me da la impresión como que no se la pueden.”

5. Squalor

“La otra es *squalor*, ahí sí que no, tampoco...ehm comida, dinero y...que puede ser...va por ahí, pero... no lo imagino. Lo asocio con alguna cosa necesaria, o sea algo que es necesario, pero no sé que es.”

6. Healing

“La otra, *healing*, también lo asocio con algo negativo, pero en cuanto a medicina así como, los efectos tal vez como de todos estos otras cosas que se han nombrado antes.”

7. Affluence

“*Affluence*, pero como está hablando de medicina..., lo asocio a algo más técnico. Son, claro como que son causadas por algo que es distinto a la de las otras personas, algo pobre... es algo como, como más técnico me da la impresión. Es como muy de médicos.”

8. Unfathomable

“Me da la impresión de que fuera algo como sintomáticos, no sé, una cosa así.”

9. Hazards

“*Hazards, peligros* parece que es.”

10. Permeated

“*Permeated*, como que se combina una cosa, así. No me acuerdo de la palabra en español pero es básicamente eso. *Se* combina con otra y forma otra cosa.”

Subject 2

1. Sewage

“Ehm, por lo que puedo deducir, aunque no tengo una idea muy clara. Es que..., debe ser la característica de un olor ¿desagradable?”

2. Waver

“Me imagino que puede ser,... como dice, que su creencia, supongo que puede ser que se hacen más fuertes o se forman una opinión más justificada.”

3. Assessing

“Eh..., examinar la medicina ¿moderna?”

4. Come down with

“Por qué no se interesan o no se sienten atraídos hacia algo.”

5. Squalor

“Esa no la pude deducir, traté pero..., lo asocio con algo negativo. Un problema, pero no sabría decir qué problema.”

6. Healing

“Ah, esa yo la sabía que es como sanación.”

7. Affluence

“*Affluence* no sé lo que es pero supongo que es la causa de una enfermedad, algo negativo, pero no sé que es.”

8. Unfathomable

“Esa supongo que se refiere a algo desconocido, y en cierta forma ¿oscura?”

9. Hazards

“No sé. Imagino que puede ser alguna enfermedad causada por cosas modernas, por, por, por problemas modernos, no sé, como contaminación, me imagino.”

10. Permeated

“Infiriendo por el hecho..., porque se parece al español que cada célula se permea?”

Subject 3

1. Sewage

“O sea por el contexto sé que es algo negativo. Que habla como de los de lo que distingue a los países pobres pero, como que no se me ocurre que puede ser específicamente.”

2. Waver

“Por *wave* como que me suena a como que fuera en aumento la..., también lo asimilo con lo de *wave*.”

3. Assessing

“Como cuando, no sé en realidad, como cuando se refieren, como cuando ¿hablan de la medicina moderna? No se me ocurre otra cosa así como según el contexto.”

4. Come down with

“Como por lo que saco de ahí, como que ellos no se contagian, como que no les llegan otras enfermedades o algo así.”

5. Squalor

“Eso ehm, traté de ver que es, porque como la falta de comida, dinero y... como queda en punto final y siento que no puedo sacar mucho del contexto sobre todo al final porque no dice nada más después de esa palabra. Yo creo que es algo negativo que habla como también de la falta de comida y de dinero.”

6. Healing

“Como de sanar de *heal*.”

7. Affluence

“Eso es como cuando hay afluencia de, mucha cantidad de...dice están lejos de ser misteriosas y esa palabra rara, como desconocida, claro.”

8. Unfathomable

“Será que es como incómodo no sé. Como dice están lejos de ser misteriosas y esa palabra rara.”

9. Hazards

“Me suena pero, no es que me suena a un... No lo asocio con nada. El contexto ayuda un poco pero no sé exactamente decirlo. Sé es algo como que está en el ambiente pero lo siento como algo favorable.”

10. Permeated

“Como que están en contacto.”

Advanced-level subjects

Subject 4

1. Grinds

“La primera palabra es *grinds* yo creo que bueno entiendo que es un sustantivo lo que me ayudó yo creo es la palabra *dau*...y aparte por el contexto están hablando de los *nerds* me imagino que es un sustantivo que denota algo no muy agraciado, o algo que es más bien fome. Debe ser alguna entidad que yo creo que denota eso. Literalmente no sé lo que significa. Pero en realidad creo que no es no es imperativo saber lo que significa porque con el adjetivo está bien explicado. Se entiende la idea.”

2. Klutzes

“*Klutzes* me imagino que es la palabra también se entiende por el contexto Porque dice *they are klutzes for* y eso me imagino que son personas nulas en los deportes alguien nulo alguien que no sabe y *tweed when it comes to* debe ser lo mismo.”

3. Dweebs

“*Dweed* es una persona que es torpe que no tiene el manejo de algo pero de nuevo literalmente no sé cuál es la traducción y no se me viene ningún equivalente a la cabeza ¿ya? pero ahí el contexto sí me ayuda mucho.”

4. Ensemble

“En *ensemble* también porque dice canta en un *choral ensemble* se me imagina que debe ser algo así como un grupo coral aparte que después dice que *student’s council* y después *mathematics society* de nuevo no sé qué significa literalmente cuáles son la peculiaridades de la palabra.”

5. Student-body

“*Students’ body* yo lo que menos recomiendan pero aquí me valgo del español es algo así como el cuerpo de estudiantes. Como los estudiantes en general porque dice que es el presidente del *student’s body* yo me imagino que eso, yo lo traduje.”

6. Varsity

“La otra palabra *varsity* se me hace que es una categoría porque dice he plays varsity soccer y después junior varsity basketball y entonces cuando combinan junior con varsity se me imagina algo como no sé cuando como a uno le dicen cadete algo así como las categorías como de los deportes se me imagina que es algo así y siempre bueno debe ser como lo que viene después del junior.”

7. Valedictorian

“Valedictorian es una palabra muy complicada no sé lo que significa y están hablando de alguien que sabe mucho valedictorian tiene que ser algo me imagino que sabe mucho o que es el número uno se nota que hace referencia algo muy positivo y la palabra también es como súper glamorosa porque tiene algo especial en ese sentido aunque hace referencia.”

8. Innate

“*Innate* es totalmente cognado.”

9. Buckle down

“Con buckle down fue más complicado entender lo que significa porque dice que los alumnos son muy aventajados dice for them then it comes too easily they never find out how to buckle down eso no me imagina que es aunque trato de

verlo del contexto lo ve muy fácil pero nunca saben como no sé pero realmente creo que no por el contexto como que no hay mucha ayuda .”

10. Readily

“Readily literal así creo que esa la sabía *con prestancia* a mí se me viene esa palabra del español pero sé que como que es muy rebuscada.”

Subject 5

1. Grinds

“La primera palabra que sale aquí es *grinds* yo creo que tiene que ver más bien con es, me imagino que es como geek en inglés, nerd como una persona que siempre ha estado leyendo libros.”

2. Klutzes

“La segunda me imagino que es una persona torpe en español como no muy hábil con los deportes.”

3. Dweebs

“*Dweebs* es como pavo en realidad es que en realidad con este párrafo como altiro como que te predispone a la idea típica del nerd.”

4. Ensemble

“La otra palabra es *ensemble* si no me equivoco *ensemble* es cuando hay muchos músicos o diferentes instrumentos se juntan a tocar música en general que yo sepa yo creo que sería eh no sé como grupo itinerante.”

5. Student-body

“La otra palabra es students’ body y me imagino que es como una especie de como alguien que está en el centro de alumnos y es la persona que es del centro de alumnos que forma parte del cuerpo de estudiantes de la universidad.”

6. Varsity

“Varsity Me imagino que es como una división de la competición de los deportes la categoría como infantil, juvenil, eso creo que es una categoría no sé exactamente cuál pero es una jerarquía.”

7. Valedictorian

“*Valedictorian* yo creo que es tiene que ver como con es como un orador en realidad me imagino que es alguien que se para frente a un público a hablar de un tema y se pone a debatir con otra persona que está me imagino.”

8. Innate

“*Innate* bueno las habilidades internas como *innate* en inglés.”

9. Buckle down

“*Buckle down* me imagino que es como decantar es como aquí el párrafo acá lo que está diciendo es que en el fondo los estudiantes son menos, en el fondo hay estudiantes hay casos en que los estudiantes con menos CI son más digamos proficientes, no. Son más tienen más habilidades que los alumnos con mayor CI entonces como los estudiantes con más CI no aprenden tan, no necesitan tanto esfuerzo para, no alcanzan como a decantarse con los conocimientos esa es la idea el contexto ayuda no conozco el *idiom* pero me ayudó mucho.”

10. Readily

“*Readily* en el fondo es como rápidamente es como en el fondo no la idea es que los aprendientes pueden llegar al nivel más alto de sus y en el fondo no hay ninguna razón inherente porque también los otros compañeros también pueden llegar de la misma forma pero aprendiendo habilidades que los otros lo hacen rápidamente.”

Subject 6

1. Grinds

“*Grinds* como que la he escuchado pero no sé lo que significa, pero dicen que son que tiene que consiguen buenas notas y todo pero sólo por ser medios nerds así claro porque después dice que tienen que siempre los libros como que son medios ñoños.”

2. Klutzes

“Esta palabra nunca en mi vida la había visto, pero me imagino que es... que son ñurdos para el ¿deporte?”

3. Dweebs

“Me imagino que es... no sé poco delicados... como que no saben tratar con las niñas, pero no sé que palabra puede ser. Se me ocurre ñurdo no más. Ñurdo, pavo así como...”

4. Ensemble

“Por *choral* del coro, pero no me suena esa palabra, es un sustantivo pero lo que no sé como o sea porque antes está con un adjetivo choral, pero no sé grupo, no sé.”

5. Student-body

“Student body es como no sé como un cuerpo de estudiantes pero sí es muy literal.”

6. Varsity

“No se me ocurre, me imagino que puede ser algo de cuanto jugadores tiene que ser no sé algo está fútbol y fútbolito por ejemplo que tiene que ver con cuantos jugadores que es como soccer que son 7 por lado.”

7. Valedictorian

“*Valedictorian* me suena como..., de alto grado en la clase, como muy inteligente muy sobre todo porque después demuestran con números que tuvo una gran puntuación.”

8. Innate

“Esta *innate* me suena a *natural abilities*.”

9. Buckle down

“*Buckle down* me imagino que es como ellos pueden aprender pero no pueden canalizar todo ese conocimiento me imagino creo yo. Bueno por lo menos es un adjetivo pero no sé lo que significa.”

10. Readily

“*Readily* me suena a *easily*, no sé, por ser un adverbio yo creo. No sé yo creo que sobre todo por el contexto hay algunos que pueden, o sea hay otros que pueden aprender más fácil, por eso me suena.

Pilot verbal protocol

1. “No tengo muy claro, no conozco la palabra, pero me da la idea de que es como, es *investigaciones* que han hecho los científicos.”
2. “*To clone*, clonar.”
3. “*Inadvertently* de que podía pasar *inadvertido*.”
4. “La otra palabra *trigger*, no la conozco para nada.” “Como lo que podría...Según lo que dice esa pregunta, como que los nuevos avances que podría *traer* las tecnologías y las implicaciones, algo así.”
5. “*Intuitively* que es *intuitivamente*, la intuición de las personas.”
6. “La otra es *backfire*, tampoco la cacho, pero es como... como que, como las *reacciones* puede ser.”
7. “Y *snoop* tampoco. Como...Como de *meterse*, *inmiscuir*, como de *sapear*.”

APPENDIX E

Transcription conventions of think-aloud protocols

“ ” = Spanish think-aloud protocol

Bold face words = target lexical items

(Bold face initials) = lexical inferencing strategy

Underlined expressions = inferred meanings

Italics = words phrases read from the text

... = pause

APPENDIX F

Think-aloud protocols

Intermediate level subjects

Subject 1

Think-aloud protocol	Type of strategy	Comments and degree of inferential success
Sewage: “Como que entiendo el contexto en general (EVWC), pero la palabra no (M). No sé lo que significa, pero es algo que provoca <u>mal olor</u> , por ejemplo esto: <i>dust between their toes</i> (IR), pero no sé... como algo negativo (M). Podría asociarla pero no me acuerdo (M).”	-Evaluating: Verifying, wider context -Monitoring -Identifying: Repeating -Monitoring -Monitoring	The learner understands the wider context of the word and shows a conscious awareness of the difficulty. She knows that the word is unknown to her, but indicates that the information is provided in the sentence where the unknown word occurs.
		Degree of inferential success: Partially successful
Waver: “Ésta me da la impresión (M) de que es como... que... como que...	-Monitoring -Identifying:	The learner repeats the section of the text in which the word has occurred in an attempt to guess the meaning of the

<p>significa algo también como un poco negativo, como dice: <i>our beliefs waver</i> (IR, EVIC) como que <u>bajan</u>, como que <u>decaen</u>, no sé (M), como un <u>descenso</u>.”</p>	<p>Repeating -Evaluating: Verifying, immediate context -Monitoring</p>	<p>word. The learner resorts to the immediate context of the word to guess its meaning.</p> <hr/> <p>Degree of inferential success: Unsuccessful</p>
<p>Assessing: “No sé, me da la impresión (M) que es como <u>investigar</u>, parece. No sé si la había visto antes, creo, algo así. Es como cuando <u>inspeccionan</u> la medicina moderna (EVIC), me da la impresión.”</p>	<p>-Monitoring -Evaluating: Verifying, immediate context</p>	<p>The learner shows insecurity about whether she knows the word or not. The awareness of the problem is present with the expression: <i>no sé si la había visto antes, creo...</i></p> <hr/> <p>Degree of inferential success: Unsuccessful</p>
<p>Come down with: “La otra es <i>come down with</i>. Yo creo que es algo como negativo también un poco. A lo mejor no tanto (M), pero más negativo que neutro.</p>	<p>-Monitoring -Monitoring -Evaluating: Verifying, wider</p>	<p>The learner she tries to guess the meaning of the word, she tries to come to an agreement in terms of how negative the meaning is on the basis of the wider context.</p>

<p>Como que... me da la impresión (M) de que los doctores <u>no se la pueden</u> con algunas enfermedades serias (EVWC), eso. Me da la impresión como que <u>no se la pueden.</u>”</p>	<p>context</p>	<p>Degree of inferential success: Unsuccessful</p>
<p>Squalor: “La otra es <i>squalor</i>, ahí sí que no (M), tampoco... eh... comida, dinero y... que puede ser... va por ahí, pero... no lo imagino. Lo asocio con alguna cosa necesaria (EVIC), o sea, algo que es <u>necesario</u>, pero no sé que es.”</p>	<p>-Monitoring -Evaluating: Verifying, immediate context</p>	<p>The learner resorts to the immediate context to try to guess the meaning of the unknown word. The learner associates it with a related expression from the context.</p> <p>Degree of inferential success: Unsuccessful</p>
<p>Healing: “La otra, <i>healing</i>, también lo asocio con algo negativo, pero en cuanto a medicina. Así como... los <u>efectos</u> tal vez... como (M) de todos estas otras cosas que se</p>	<p>-Monitoring -Evaluating: Verifying, wider context</p>	<p>The context helps the learner associate the word with the effects of the concepts named before.</p> <p>Degree of inferential success: Unsuccessful</p>

han nombrado antes (EVWC).”		
Affluence: “ <i>Affluence</i> , pero como está hablando de medicina... lo asocio a algo más técnico. Son, claro como que son causadas por algo que es distinto a la de las otras personas. Algo pobre (EVWC)... es algo como, como más técnico me da la impresión (M). Es como muy de médicos.”	-Evaluating: Verifying, wider context -Monitoring	The learner uses the wider context to infer the meaning of the target word.
		Degree of inferential success: Unsuccessful
Unfathomable: “Me da la impresión (M) de que fuera algo como <u>sintomáticos</u> (EVIC). No sé, una cosa así.”	-Monitoring -Evaluating: Verifying, immediate context	The learner does not know the word and tries to guess its meaning using the immediate context of the word.
		Degree of inferential success: Unsuccessful
Hazards: “ <i>Hazards</i> , <u>peligros</u> parece que es (M).”	-Monitoring	The learner is not sure about the meaning of the word.

		Degree of inferential success: Successful
<p>Permeated: “<i>Permeated</i>, como que <u>se combina</u> una cosa, así. No me acuerdo de la palabra en español (M), pero es básicamente eso. <u>Se combina</u> con otra y forma otra cosa (EVIC).”</p>	<p>-Monitoring -Evaluating: Verifying, immediate context</p>	The learner resorts to the immediate context of the word to guess its meaning.
		Degree of inferential success: Partially successful
	<p>IR = 2 EVIC = 5 EVWC = 4 M = 14</p>	<p>Successful inferences = 1 Partially successful inferences = 2 Unsuccessful inferences = 7</p>
Number of strategies	25	Number of inferences 10

Subject 2

Think-aloud protocol	Type of strategy	Comments and degree of inferential success
Sewage: “Eh... por lo que puedo deducir (EVWC), aunque no tengo una idea muy clara (M), es que... debe ser la característica de un olor <u>¿desagradable?</u> (ES)”	-Evaluating: Verifying, wider context -Monitoring -Evaluating: Self-inquiry	The learner uses the wider context to deduce the meaning of the unknown word. The learner asks herself about the meaning of the word.
		Degree of inferential success: Partially successful
Waver: “Me imagino que puede ser como dice (EVIC), que su creencia... supongo que puede ser que <u>se hacen más fuertes o se forman una opinión más justificada.</u> ”	-Evaluating: Verifying, immediate context	The learner contrasts the meaning of the word with the immediate context in which the word appears.
		Degree of inferential success: Unsuccessful
Assessing: “Eh... <u>examinar</u> la medicina ¿moderna? (EVIC , ES)”	-Evaluating: Verifying, immediate context	The learner asks a question about the meaning of the word.
		Degree of inferential success: Partially successful

	-Evaluating: Self-inquiry	
Come down with: “Por qué <u>no se interesan</u> o <u>no se sienten atraídos hacia algo (EVIC).</u> ”	-Evaluating: Verifying, immediate context	The learner uses the immediate context to guess the meaning of the word.
		Degree of inferential success: Unsuccessful
Squalor: “Esa no la pude deducir (EVWC), traté (M), pero... lo asocio con algo negativo. Un problema, pero no sabría decir qué problema (M).”	-Evaluating: Verifying, wider context -Monitoring -Monitoring	The learner uses the wider context to provide the meaning of the word.
		Degree of inferential success: Unsuccessful
Healing: “Ah, esa yo la sabía... que es como <u>sanación.</u> ”	No strategies were used	The learner knows the meaning of the word, so she says: “ah, <u>esa yo la sabía...</u> ”
		No inference was made

<p>Affluence: “<i>Affluence</i> no sé lo que es, pero supongo (M) que es la <u>causa de una enfermedad</u>, algo negativo, pero no sé que es (EVIC).”</p>	<p>-Monitoring -Evaluating: Verifying, immediate context</p>	<p>The learner supposes she knows the meaning of the word; she also contrasts the meaning of the word with its immediate context.</p> <hr/> <p>Degree of inferential success: Unsuccessful</p>
<p>Unfathomable: “Esa supongo (M) que se refiere a algo <u>desconocido</u>, y en cierta forma <u>¿oscura?</u> (EVIC, ES)”</p>	<p>-Monitoring -Evaluating: Verifying, immediate context -Evaluating: Self-inquiry</p>	<p>The learner judges the meaning of the word by using its immediate context. The learner provides a meaning but is not sure about it.</p> <hr/> <p>Degree of inferential success: Partially successful</p>
<p>Hazards: “No sé. Imagino que (M) puede ser alguna enfermedad causada por cosas modernas, por... por... por problemas modernos (EVIC), no</p>	<p>-Monitoring -Evaluating: Verifying, immediate</p>	<p>The immediate context helps the learner guess the meaning of the word. The learner examines the appropriateness of the inferred meaning by checking it against the</p>

sé, como <u>contaminación</u> , me imagino.”	context	immediate context.
		Degree of inferential success: Unsuccessful
Permeated: “Infiriendo por el hecho ... porque se parece al español, que cada célula se <u>¿permea?</u> (EVIC, ES)”	-Evaluating: Verifying, immediate context -Evaluating: Self-inquiry	The learner infers the meaning of the word from analogy with a word in the L1. The learner translates the word into Spanish. The learner also uses the immediate context of the word.
		Degree of inferential success: Successful
EVIC = 7 EVWC = 2 ES = 4 M = 6		Successful inferences = 1 Partially successful inferences = 3 Unsuccessful inferences = 5
Number of strategies	19	Number of inferences 9

Subject 3

Think-aloud protocol	Type of strategy	Comments and degree of inferential success
<p>Sewage: “O sea por el contexto (EVWC) sé que es algo negativo. Que habla como de los... de lo que distingue a los países pobres de... pero, como que no se me ocurre que puede ser específicamente (M).”</p>	<p>-Evaluating: Verifying, wider context -Monitoring</p>	<p>The learner provides an examination of the meaning of the word. The learner uses the wider context to check this meaning.</p>
		<p>Degree of inferential success: Unsuccessful</p>
<p>Waver: “Por <i>wave</i> (IWA) como que me suena a... como que fuera <u>en aumento</u> la... también lo asimilo (IWA) con lo de <i>wave</i>.”</p>	<p>-Identifying: Word analysis -Identifying: Word analysis</p>	<p>The learner analyses the root of the word to provide its meaning.</p>
		<p>Degree of inferential success: Unsuccessful</p>
<p>Assessing: “Como cuando, no sé en realidad. Como cuando se refieren, como cuando <u>¿hablan de la medicina moderna?</u></p>	<p>-Evaluating: Verifying, immediate context</p>	<p>The learner uses the immediate context to provide an approximation of the meaning of the word but she fails to do so.</p>

<p>(EVIC) (ES) No se me ocurre (M) otra cosa así como según el contexto.”</p>	<p>-Evaluating: Self-inquiry -Monitoring</p>	<p>Degree of inferential success: Unsuccessful</p>
<p>Come down with: “Como por lo que saco de ahí (EVIC), como que ellos <u>no se contagian</u>, como que <u>no les llegan</u> otras enfermedades o algo así.”</p>	<p>-Evaluating: Verifying, immediate context</p>	<p>The learner uses the immediate context to guess the meaning of the word. Degree of inferential success: Successful</p>
<p>Squalor: “Eso eh, traté de ver qué es, porque como la falta de comida, dinero (EVIC) y... como queda en punto final, y siento que no puedo sacar mucho (M) del contexto sobre</p>	<p>-Evaluating: Verifying, immediate context -Monitoring</p>	<p>The learner shows a conscious awareness of the problem by judging its difficulty. The learner uses the immediate context to guess the meaning of the word.</p>

<p>todo al final, porque no dice nada más después de esa palabra. Yo creo que es algo negativo. Que habla como también de la falta de comida y de dinero.”</p>		<p>Degree of inferential success:</p> <p>Partially successful</p>
<p>Healing: “Como de sanar de <i>heal</i>. (IWA)”</p>	<p>-Identifying: Word analysis</p>	<p>The learner attempts to figure out the meaning of the word based the root of the word <i>heal</i>.</p> <hr/> <p>Degree of inferential success:</p> <p>Partially successful</p>
<p>Affluence: “Eso es como cuando hay <u>afluencia</u> de, <u>mucha cantidad</u> de. Dice: están lejos de ser misteriosas (EVIC) y... esa palabra rara, como desconocida (M), claro.”</p>	<p>-Evaluating: Verifying, immediate context</p> <p>-Monitoring</p>	<p>The learner examines the immediate context to provide the meaning of the word. The learner translates the word into Spanish.</p> <hr/> <p>Degree of inferential success:</p> <p>Unsuccessful</p>
<p>Unfathomable: “Será que es como <u>incómodo</u>, no sé (M).</p>	<p>-Monitoring</p>	<p>The learner tries to guess the meaning of the word by referring to</p>

<p>Como dice: están lejos de ser misteriosas y esa palabra rara (EVIC).”</p>	<p>-Evaluating: Verifying, immediate context</p>	<p>the context.</p> <hr/> <p>Degree of inferential success: Unsuccessful</p>
<p>Hazards: “Me suena, pero no. Es que me suena a un... No lo asocio con nada (M). El contexto ayuda un poco, pero no sé exactamente decirlo. Sé que es algo como que está en el ambiente, pero lo siento como algo favorable (EVIC).”</p>	<p>-Monitoring -Evaluating: Verifying, immediate context</p>	<p>The learner gives information about the little help she can obtain from the immediate context. She shows awareness of the problem by judging its difficulty.</p> <p>Although the context helps very little, the learner uses the immediate context to provide the meaning of the word.</p> <hr/> <p>Degree of inferential success: Unsuccessful</p>
<p>Permeated: “Como que está en contacto (EVIC).”</p>	<p>-Evaluating: Verifying, immediate</p>	<p>The learner examines the appropriateness of the inferred meaning by checking it against the</p>

	context	immediate context.
		Degree of inferential success: Partially successful
	IWA = 3 EVIC = 7 EVWC = 1 ES = 1 M = 6	Successful inferences = 1 Partially successful inferences = 3 Unsuccessful inferences = 6
Number of strategies	18	Number of inferences 10
Total number of strategies intermediate-level students	IR = 2 IWA = 3 EVIC = 19 EVWC = 7 ES = 5 M = 26 62	Total number of inferences intermediate-level students Successful = 3 Partially successful = 8 Unsuccessful = 18 29

Advanced level subjects

Subject 4

Think-aloud protocol	Type of strategy	Comments and degree of inferential success
<p>Grinds: “La primera palabra es <i>grinds</i>. Yo creo que, bueno entiendo que es un sustantivo (IWA). Lo que me ayudó, yo creo es la palabra <i>dull</i>... y aparte por el contexto (EVIC) están hablando de los <i>nerds</i> me imagino que es un sustantivo que denota algo no muy agraciado, o algo que es más bien <u>fome</u>. Debe ser alguna entidad que yo creo que denota eso. Literalmente, no sé lo que significa (M). Pero en realidad creo que no es... no es imperativo saber lo que significa porque con el adjetivo (IWA)”</p>	<p>-Identifying: Word analysis</p> <p>-Evaluating: Verifying, immediate context</p> <p>-Monitoring</p> <p>-Identifying: Word analysis</p>	<p>The learner uses the category of the word and the context in which the word appears in order to guess its meaning. The words surrounding the target word help the learner clarify the meaning.</p> <hr/> <p>Degree of inferential success: Unsuccessful</p>

<p>está bien explicado. Se entiende la idea.”</p>		
<p>Klutzes: “<i>Klutzes</i> me imagino que es la palabra... también se entiende por el contexto (EVIC). Porque dice: <i>they are klutzes for...</i> (IR) y eso me imagino que son personas nulas en los deportes. Alguien nulo, alguien que no sabe.”</p>	<p>-Evaluating: Verifying, immediate context -Identifying: Repeating</p>	<p>The learner repeats the word and other portions of the text to try to guess the meaning of the word. The learner also uses the context to guess the meaning of the word.</p> <hr/> <p>Degree of inferential success: Partially successful</p>
<p>Dweeb: “<i>Dweeb</i> debe ser lo mismo. Es una persona que es torpe, que no tiene el manejo de algo, pero de nuevo literalmente</p>	<p>-Monitoring -Evaluating:</p>	<p>The learner also examines the appropriateness of the inferred meaning because he says the context helps him a lot to infer this meaning.</p>

<p>no sé (M) cuál es la traducción y no se me viene ningún equivalente a la cabeza ¿ya? Pero ahí el contexto sí me ayuda mucho (EVIC).”</p>	<p>Verifying, immediate context</p>	<p>Degree of inferential success: Partially successful</p>
<p>Ensemble: “En <i>ensemble</i>, también porque dice: canta en un <i>choral ensemble</i> (IR, EVIC); se me imagina que debe ser algo así como un grupo coral. Aparte que después dice que: <i>student’s council</i> y después <i>mathematics society</i> (EVIC). De nuevo no sé qué significa (M) literalmente ni cuáles son la peculiaridades de la palabra.”</p>	<p>-Identifying: Repeating -Evaluating: Verifying, immediate context -Evaluating: Verifying, immediate context -Monitoring</p>	<p>The learner repeats the word and also the portion of the text where the word appears. He also examines the appropriateness of the inference he makes because he says “...porque dice canta en un <i>choral ensemble</i>...”</p> <p>Degree of inferential success: Successful</p>

<p>Student-body: “<i>Student- body</i>, yo... lo que menos recomiendan..., pero aquí me valgo del español; es algo así como el <u>cuerpo de estudiantes</u>. Como los estudiantes en general porque dice que es el presidente del <i>student-body</i> (EVIC) Yo me imagino que es eso (M), yo lo traduje.”</p>	<p>-Evaluating: Verifying, immediate context</p> <p>-Monitoring</p>	<p>The learner reads the expression twice. Then he examines the appropriateness of this inference.</p>
<p>Varsity: “La otra palabra, <i>varsity</i>, se me hace que es una categoría porque dice: <i>he plays varsity soccer</i> (IR, EVIC) y después <i>junior varsity basketball</i> y entonces cuando</p>	<p>-Identifying Repeating</p> <p>-Evaluating: Verifying, immediate context</p>	<p>The learner repeats the word and the section of the text surrounding the word.</p> <p>The learner uses the immediate context to guess the meaning of the word.</p>

<p>combinan junior con <i>varsity</i> (EVIC) se me imagina algo como, no sé, cuando como a uno le dicen cadete. Algo así como las categorías, como de los deportes se me imagina que es algo así. Y siempre, bueno debe ser como lo que viene después del junior (EVIC).”</p>	<p>-Evaluating: Verifying, immediate context</p> <p>-Evaluating: Verifying, immediate context</p>	<p>Degree of inferential success: Partially successful</p>
<p>Valedictorian: “<i>Valedictorian</i> es una palabra muy complicada (M). No sé lo que significa y están hablando de alguien que sabe mucho. <i>Valedictorian</i> (IR, EVIC) tiene que ser algo me</p>	<p>-Monitoring -Identifying: Repeating</p> <p>-Evaluating: Verifying, immediate</p>	<p>The learner shows consciousness of the problem by judging its difficulty.</p> <p>The learner repeats the word once. Then he uses the immediate context to guess the meaning of the unknown word.</p>

<p>imagino que sabe mucho o que es el número uno. Se nota que hace referencia a algo muy positivo (EVIC) y la palabra también es como súper glamorosa, porque tiene algo especial en ese sentido. (EVIC).”</p>	<p>context</p> <p>-Evaluating: Verifying, immediate context</p> <p>-Evaluating: Verifying, immediate context</p>	<p>Degree of inferential success:</p> <p>Partially successful</p>
<p>Innate: “<i>Innate</i> es totalmente cognado.”</p>	<p>No strategies were used</p>	<p>The learner reads the word and provides its meaning suggesting that the target word is a cognate with an L1 word. The learner attempts to figure out the meaning using word similarity with an L1 word.</p>
<p>Buckle down: “Con <i>buckle down</i> fue más complicado (M)”</p>	<p>-Monitoring</p>	<p>The learner shows awareness of the difficulty of the problem. Then he</p>
		<p>No inference was made.</p>

<p>entender lo que significa, porque dice que los alumnos son muy aventajados (EVIC); dice: <i>for them it comes too easily they never find out how to buckle down</i> (IR). Eso me imagino (M) que es, aunque trato de verlo del contexto. Lo ven muy fácil, pero nunca saben cómo. No sé (M), pero realmente creo que no. Por el contexto como que no hay mucha ayuda.”</p>	<p>-Evaluating: Verifying, immediate context -Identifying: Repeating -Monitoring -Monitoring</p>	<p>uses the immediate context to guess the meaning of the unknown word. He also repeats the word and the section of the text where the word appears.</p>
<p>Readily: “<i>Readily</i>, literal así, creo que esa la sabía (M), <u>con prestancia</u>. A mí se me viene esa palabra del español, pero sé que... como que es muy rebuscada.”</p>	<p>-Monitoring</p>	<p>The learner tries to provide the literal meaning of the unknown word. The learner uses translation.</p>
	<p>IR = 5 IWA= 2 EVIC= 13 M = 9</p>	<p>Degree of inferential success: Unsuccessful</p> <p>Successful inferences= 1 Partially successful inferences = 5 Unsuccessful inferences = 3</p>

Number of strategies	29	Number of inferences	9
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Subject 5

Think -aloud protocol	Type of strategy	Comments and degree of inferential Success
<p>Grinds: “La primera palabra que sale aquí es <i>grinds</i>. Yo creo que tiene que ver más bien con..., es..., me imagino que es como <i>geek</i> en inglés; <i>nerd</i> como una persona que siempre ha estado leyendo libros (EVIC).”</p>	<p>-Evaluating: Verifying, immediate context</p>	<p>The learner provides two synonyms in English to explain the meaning of the unknown word.</p>
		<p>Degree of inferential success: Partially successful</p>
<p>Klutzes: “La segunda me imagino que es una <u>persona torpe</u> en español, como no muy hábil con los deportes (EVIC).”</p>	<p>-Evaluating: Verifying, immediate context</p>	<p>The learner examines the meaning of the word and uses the immediate context to guess its meaning.</p>
		<p>Degree of inferential success: Successful</p>

<p>Dweeb: “<i>Dweeb</i> es como <u>pavo</u> en realidad. Es que en realidad con este párrafo (EVIC) como <u>altiro...</u>, como que te predispone a la idea típica del <i>nerd</i>.”</p>	<p>-Evaluating: Verifying, immediate context</p>	<p>The learner examines the appropriateness of the inference by checking it against the immediate context of the word. He uses the word <i>nerd</i> as a synonym of the target word.</p>
<p>Ensemble: “La otra palabra es <i>ensemble</i>. Si no me equivoco <i>ensemble</i> es cuando hay muchos músicos (EVIC) o diferentes instrumentos. Se juntan a tocar música. En general que yo sepa, yo creo que sería, eh..., no sé (M), como <u>grupo itinerante</u>.”</p>	<p>-Evaluating: Verifying, immediate context -Monitoring</p>	<p>The learner uses the immediate context to provide the meaning of the target word.</p>
<p>Student-body: “La otra palabra es <i>student-body</i>, y me imagino</p>	<p>-Evaluating: Verifying,</p>	<p>The learner examines the immediate context to try to guess the meaning</p>
		<p>Degree of inferential success: Partially successful</p>
		<p>Degree of inferential success: Successful</p>

<p>que es como una especie de,... como alguien que está en el centro de alumnos (EVIC) y es la persona que es del centro de alumnos; que forma parte del cuerpo de estudiantes de la universidad (EVIC).”</p>	<p>immediate context</p> <p>-Evaluating: Verifying, immediate context</p>	<p>of the word.</p> <hr/> <p>Degree of inferential success: Successful</p>
<p>Varsity: “<i>Varsity</i> me imagino que es como una división de la competición de los deportes, la categoría como infantil, juvenil (EVIC). Eso creo que es, una categoría. No sé exactamente cuál, pero es una jerarquía.”</p>	<p>-Evaluating: Verifying, immediate context</p>	<p>He uses the word and the immediate context to guess its meaning.</p> <hr/> <p>Degree of inferential success: Partially successful</p>
<p>Valedictorian: “<i>Valedictorian</i> yo creo que es,... tiene que ver como</p>	<p>-Evaluating: Verifying,</p>	<p>The learner uses the immediate context to guess the meaning of the</p>

<p>con,... es como un <u>orador</u>. En realidad me imagino que es alguien que se para frente a un público a hablar de un tema y se pone a debatir con otra persona, me imagino (EVIC).”</p>	<p>immediate context</p>	<p>word.</p>
<p>Innate: “<i>Innate</i>, bueno las habilidades internas, como <i>innate</i> (IWF) en inglés.”</p>	<p>-Identifying: Word-form analogy</p>	<p>The learner uses direct translation to provide the meaning of the word.</p>
<p>Buckle down: “<i>Buckle down</i> me imagino que es como <u>decantar</u>. Es como aquí el párrafo dice</p>	<p>-Evaluating: Verifying, immediate</p>	<p>The learner uses the immediate context to infer the meaning of the word.</p>
		<p>Degree of inferential success: Partially successful</p>
		<p>Degree of inferential success: Partially successful</p>

<p>(EVIC). Acá lo que está diciendo es que en el fondo los estudiantes son menos..., en el fondo hay estudiantes... hay casos en que los estudiantes con menos CI son más..., digamos proficientes, no. Tienen más habilidades que los alumnos con mayor CI, entonces como los estudiantes con más CI no aprenden tan..., no necesitan tanto esfuerzo para..., no alcanzan como a decantarse con los conocimientos. Esa es la idea. El contexto ayuda; no conozco el <i>idiom</i>, pero me ayudó mucho (EVIC).”</p>	<p>context</p> <p>-Evaluating: Verifying, immediate context</p>	<p>Degree of inferential success:</p> <p>Unsuccessful</p>
<p>Readily: “<i>Readily</i> en el fondo es como <u>rápido</u>. Es como en el fondo, no,... la idea es que los</p>	<p>-Evaluating: Verifying, immediate</p>	<p>The learner uses the immediate context to guess the meaning of the word.</p>

Subject 6

Think -aloud protocol	Type of strategy	Comments and degree of inferential Success
<p>Grinds: “<i>Grinds</i> como que la he escuchado, pero no sé lo que significa (M), pero dice (EVIC) que son... que consiguen buenas notas y todo, pero sólo por ser medios <i>nerds</i>. Así, claro, porque después dice que tienen siempre los libros, como que son medios <u>ñoños</u>.”</p>	<p>-Monitoring</p> <p>-Evaluating: Verifying, immediate context</p>	<p>The learner uses the immediate context and the word <i>nerd</i> to provide an equivalent of the unknown word.</p> <hr/> <p>Degree of inferential success: Partially successful</p>
<p>Klutzes: “Esta palabra nunca en mi vida la había visto (M) pero me imagino que es... que son <u>ñurdos</u> para el ¿deporte? (EVIC, ES).”</p>	<p>-Monitoring</p> <p>-Evaluating: Verifying, immediate context</p> <p>-Evaluating:</p>	<p>The learner uses the immediate context and asks himself about the inferred meaning.</p> <hr/> <p>Degree of inferential success: Successful</p>

	Self-inquiry	
<p>Dweeb: “Me imagino que es... no sé <u>poco delicados</u>... como que no saben tratar con las niñas (EVIC), pero no sé qué palabra puede ser (M). Se me ocurre <u>ñurdo</u> no más. <u>Ñurdo</u>, <u>pavo</u> así como...”</p>	<p>-Evaluating: Verifying, immediate context</p> <p>-Monitoring</p>	<p>The learner uses the immediate context to guess the meaning of the target word.</p>
		<p>Degree of inferential success: Partially successful</p>
<p>Ensemble: “Por <i>choral</i>, del coro, pero no me suena esa palabra (M), es un sustantivo (IWA), pero no sé. Como... o sea porque antes está con un adjetivo <i>choral</i> (EVIC), pero no sé. <u>Grupo</u>, no sé (M).”</p>	<p>-Monitoring</p> <p>-Identifying: Word analysis</p> <p>-Evaluating: Verifying, immediate context</p> <p>-Monitoring</p>	<p>The learner uses a grammatical category to help her guess the meaning of the target word. The learner also uses the immediate context to guess the meaning of the target word.</p>
		<p>Degree of inferential success: Successful</p>

<p>Student-body: “<i>Student body</i> es como... no sé como un cuerpo de estudiantes (EVIC), pero sí, es muy literal.”</p>	<p>Evaluating: Verifying, immediate context</p>	<p>The learner uses the immediate context to guess the meaning of the target word.</p>
		<p>Degree of inferential success: Partially successful</p>
<p>Varsity: “No se me ocurre (M), me imagino que puede ser algo de... cuantos jugadores. Tiene que ser, no sé. Algo... está futbol y futbolito, por ejemplo, que tiene que ver con cuántos jugadores (EVIC), que es como <i>soccer</i>, que son 7 por lado.”</p>	<p>-Monitoring -Evaluating: Verifying, immediate context</p>	<p>The immediate context helps the learner identify the meaning of the word.</p>
		<p>Degree of inferential success: Unsuccessful</p>
<p>Valedictorian: “<i>Valedictorian</i> me suena como... de alto grado en la clase, como muy inteligente</p>	<p>-Evaluating: Verifying, immediate</p>	<p>The learner uses the immediate context to give an explanation of the word.</p>

<p>muy... sobre todo porque después demuestran con números que tuvo una gran puntuación (EVIC).”</p>	<p>context</p>	<p>Degree of inferential success: Successful</p>
<p>Innate: “Esta <i>innate</i> me suena a <i>natural abilities</i> (EVIC).”</p>	<p>Evaluating Verifying, immediate context</p>	<p>The learner uses the immediate context of the word to guess its meaning.</p>
		<p>Degree of inferential success: Partially successful</p>
<p>Buckle down: “<i>Buckle down</i> me imagino que es como... ellos pueden aprender, pero no pueden canalizar todo ese conocimiento (EVIC), me imagino, creo yo. Bueno por lo menos es un adjetivo (IWA), pero no sé lo que significa (M).”</p>	<p>-Evaluating: Verifying, immediate context -Identifying: Word analysis -Monitoring</p>	<p>The learner also uses the wider context to guess the meaning of the target word.</p>
		<p>Degree of inferential success: Unsuccessful</p>

<p>Readily: “<i>Readily</i> me suena a <i>easily</i> (IWC), no sé, por ser un adverbio (IWA) yo creo. No sé yo creo que sobre todo por el contexto (EVIC). Hay algunos que pueden, o sea... hay otros que pueden aprender más fácil, por eso me suena.”</p>	<p>-Identifying: Word class</p>	<p>The learner uses another expression that helps him identify the meaning.</p>
	<p>-Word analysis -Evaluating: Verifying, immediate context</p>	<p>The learner also uses the immediate context to guess the meaning of the target word.</p>
		<p>Degree of inferential success: Successful</p>
	<p>IWC = 1 IWA = 3 EVIC = 10 ES = 1 M = 7</p>	<p>Successful inferences = 4 Partially successful inferences = 4 Unsuccessful inferences = 2</p>
<p>Number of strategies</p>	<p>22</p>	<p>Number of inferences</p>
<p>Total number of strategies advanced-level students</p>	<p>IR = 5 IWA = 5 IWF = 1 IWC = 1 EVIC = 34 ES = 1 M = 17 64</p>	<p>Total number of inferences advanced-level students</p> <p>Successful = 9 Partially successful = 14 Unsuccessful = 6 29</p>

APPENDIX G

Word Associates Test

Instructions:

This is a test of how well you know the meaning of adjectives that are commonly used in English. Each item looks like this:

sudden

<input type="checkbox"/> beautiful	<input type="checkbox"/> quick	<input type="checkbox"/> surprising	<input type="checkbox"/> change	<input type="checkbox"/> doctor	<input type="checkbox"/> noise
<input type="checkbox"/> thirsty			<input type="checkbox"/> school		

There are eight words in the two boxes (left & right boxes).

<p>The words here on the left side may help to explain the meaning of "sudden".</p>	<p>The words here on the right side are nouns that may come after "sudden" in a phrase or a sentence.</p>
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<p>"Sudden" means "happening quickly and unexpectedly", so the correct answers on the left side are "quick" and "surprising".</p>	<p>We do not normally say "a sudden doctor" or "a sudden school", but we often say "a sudden change" and "a sudden noise", so "change" and "noise" are the correct answers on this side.</p>
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From the two boxes, select four words that you think are relevant to the stimulus word (i.e. 'sudden' in this example), according to the criteria mentioned above.

Use your computer's mouse to check the answers like this:

sudden

<input type="checkbox"/> beautiful <input type="checkbox"/> thirsty	<input type="checkbox"/> quick	<input type="checkbox"/> surprising	<input type="checkbox"/> change <input type="checkbox"/> school	<input type="checkbox"/> doctor	<input type="checkbox"/> noise
--	--------------------------------	-------------------------------------	--	---------------------------------	--------------------------------

Note: In this example, there are two correct answers on the left and two on the right, but this is just an example. Do not assume there is a consistent number of correct answers on the left or on the right. Just remember: try to find four related words for each item.

Word Associates Test – 40 items – choose four per set (both boxes)

1. beautiful

<input type="checkbox"/> enjoyable	<input type="checkbox"/> expensive	<input type="checkbox"/> loud	<input type="checkbox"/> education	<input type="checkbox"/> face	<input type="checkbox"/> music
<input type="checkbox"/> free			<input type="checkbox"/> weather		

2. bright

<input type="checkbox"/> clever	<input type="checkbox"/> famous	<input type="checkbox"/> shining	<input type="checkbox"/> colour	<input type="checkbox"/> hand	<input type="checkbox"/> poem
<input type="checkbox"/> happy			<input type="checkbox"/> taste		

3. calm

<input type="checkbox"/> open	<input type="checkbox"/> quiet	<input type="checkbox"/> tired	<input type="checkbox"/> cloth	<input type="checkbox"/> day	<input type="checkbox"/> light
<input type="checkbox"/> smooth			<input type="checkbox"/> person		

4. natural

<input type="checkbox"/> expected	<input type="checkbox"/> real	<input type="checkbox"/> short	<input type="checkbox"/> foods	<input type="checkbox"/> neighbours	<input type="checkbox"/> parents
<input type="checkbox"/> helpful			<input type="checkbox"/> songs		

5. fresh

<input type="checkbox"/> another	<input type="checkbox"/> cool	<input type="checkbox"/> raw	<input type="checkbox"/> cotton	<input type="checkbox"/> heat	<input type="checkbox"/> language
<input type="checkbox"/> easy			<input type="checkbox"/> water		

6. general

<input type="checkbox"/> closed	<input type="checkbox"/> different	<input type="checkbox"/> whole	<input type="checkbox"/> country	<input type="checkbox"/> idea	<input type="checkbox"/> reader
<input type="checkbox"/> usual			<input type="checkbox"/> street		

7. bare

<input type="checkbox"/> empty	<input type="checkbox"/> uncovered	<input type="checkbox"/> useful	<input type="checkbox"/> cupboard	<input type="checkbox"/> feet	<input type="checkbox"/> school
<input type="checkbox"/> heavy			<input type="checkbox"/> tool		

8. acute

<input type="checkbox"/> hidden	<input type="checkbox"/> often	<input type="checkbox"/> sharp	<input type="checkbox"/> angle	<input type="checkbox"/> hearing	<input type="checkbox"/> illness
<input type="checkbox"/> rich			<input type="checkbox"/> stones		

9. common

<input type="checkbox"/> complete	<input type="checkbox"/> light	<input type="checkbox"/> ordinary	<input type="checkbox"/> boundary	<input type="checkbox"/> circle	<input type="checkbox"/> name
<input type="checkbox"/> shared			<input type="checkbox"/> party		

10. complex

<input type="checkbox"/> angry	<input type="checkbox"/> difficult	<input type="checkbox"/> sudden	<input type="checkbox"/> argument	<input type="checkbox"/> passengers	<input type="checkbox"/> problem
<input type="checkbox"/> necessary			<input type="checkbox"/> patterns		

11. broad

<input type="checkbox"/> full	<input type="checkbox"/> moving	<input type="checkbox"/> wide	<input type="checkbox"/> night	<input type="checkbox"/> river	<input type="checkbox"/> shoulders
<input type="checkbox"/> quiet			<input type="checkbox"/> smile		

12. conscious

<input type="checkbox"/> awake	<input type="checkbox"/> healthy	<input type="checkbox"/> laughing	<input type="checkbox"/> face	<input type="checkbox"/> decision	<input type="checkbox"/> effort
<input type="checkbox"/> knowing			<input type="checkbox"/> student		

13. convenient

<input type="checkbox"/> easy	<input type="checkbox"/> near	<input type="checkbox"/> fresh	<input type="checkbox"/> experience	<input type="checkbox"/> sound	<input type="checkbox"/> time
<input type="checkbox"/> suitable			<input type="checkbox"/> vegetable		

14. dense

<input type="checkbox"/> crowded	<input type="checkbox"/> noisy	<input type="checkbox"/> thick	<input type="checkbox"/> forest	<input type="checkbox"/> handle	<input type="checkbox"/> smoke
<input type="checkbox"/> hot			<input type="checkbox"/> weather		

15. curious

<input type="checkbox"/> helpful	<input type="checkbox"/> interested	<input type="checkbox"/> missing	<input type="checkbox"/> accident	<input type="checkbox"/> child	<input type="checkbox"/> computer
<input type="checkbox"/> strange			<input type="checkbox"/> steel		

16. distinct

<input type="checkbox"/> clear	<input type="checkbox"/> famous	<input type="checkbox"/> true	<input type="checkbox"/> advantage	<input type="checkbox"/> meanings	<input type="checkbox"/> news
<input type="checkbox"/> separate			<input type="checkbox"/> parents		

17. dull

<input type="checkbox"/> cloudy	<input type="checkbox"/> nice	<input type="checkbox"/> secret	<input type="checkbox"/> colour	<input type="checkbox"/> knife	<input type="checkbox"/> place
<input type="checkbox"/> loud			<input type="checkbox"/> rock		

18. direct

<input type="checkbox"/> honest	<input type="checkbox"/> main	<input type="checkbox"/> wide	<input type="checkbox"/> fence	<input type="checkbox"/> flight	<input type="checkbox"/> heat
<input type="checkbox"/> straight			<input type="checkbox"/> river		

19. favorable

<input type="checkbox"/> helpful	<input type="checkbox"/> legal	<input type="checkbox"/> positive	<input type="checkbox"/> habit	<input type="checkbox"/> response	<input type="checkbox"/> teacher
<input type="checkbox"/> possible			<input type="checkbox"/> weather		

20. secure

<input type="checkbox"/> confident	<input type="checkbox"/> enjoyable	<input type="checkbox"/> safe	<input type="checkbox"/> game	<input type="checkbox"/> job	<input type="checkbox"/> meal
<input type="checkbox"/> fixed			<input type="checkbox"/> visitor		

21. tight

<input type="checkbox"/> close	<input type="checkbox"/> uncomfortable	<input type="checkbox"/> wet	<input type="checkbox"/> bend	<input type="checkbox"/> pants	<input type="checkbox"/> surface
<input type="checkbox"/> rough			<input type="checkbox"/> wood		

22. violent

<input type="checkbox"/> expected	<input type="checkbox"/> strong	<input type="checkbox"/> unlucky	<input type="checkbox"/> anger	<input type="checkbox"/> death	<input type="checkbox"/> rubbish
<input type="checkbox"/> smelly			<input type="checkbox"/> storm		

23. chronic

<input type="checkbox"/> continuing	<input type="checkbox"/> local	<input type="checkbox"/> unplanned	<input type="checkbox"/> accident	<input type="checkbox"/> examination	<input type="checkbox"/> shortage
<input type="checkbox"/> serious			<input type="checkbox"/> illness		

24. compact

<input type="checkbox"/> effective	<input type="checkbox"/> solid	<input type="checkbox"/> useful	<input type="checkbox"/> group	<input type="checkbox"/> kitchen	<input type="checkbox"/> medicine
<input type="checkbox"/> small			<input type="checkbox"/> string		

25. crude

<input type="checkbox"/> clever	<input type="checkbox"/> fair	<input type="checkbox"/> valuable	<input type="checkbox"/> behaviour	<input type="checkbox"/> drawing	<input type="checkbox"/> oil
<input type="checkbox"/> rough			<input type="checkbox"/> trade		

26. domestic

<input type="checkbox"/> home	<input type="checkbox"/> national	<input type="checkbox"/> smooth	<input type="checkbox"/> animal	<input type="checkbox"/> speed	<input type="checkbox"/> policy
<input type="checkbox"/> regular			<input type="checkbox"/> movement		

27. profound

<input type="checkbox"/> bright	<input type="checkbox"/> exact	<input type="checkbox"/> deep	<input type="checkbox"/> effect	<input type="checkbox"/> machine	<input type="checkbox"/> taste
<input type="checkbox"/> great			<input type="checkbox"/> thought		

28. fertile

<input type="checkbox"/> dark	<input type="checkbox"/> growing	<input type="checkbox"/> special	<input type="checkbox"/> business	<input type="checkbox"/> egg	<input type="checkbox"/> mind
<input type="checkbox"/> private			<input type="checkbox"/> soil		

29. formal

<input type="checkbox"/> fast	<input type="checkbox"/> loud	<input type="checkbox"/> serious	<input type="checkbox"/> bomb	<input type="checkbox"/> education	<input type="checkbox"/> growth
<input type="checkbox"/> organised			<input type="checkbox"/> statement		

30. independent

<input type="checkbox"/> changed	<input type="checkbox"/> important	<input type="checkbox"/> separate	<input type="checkbox"/> child	<input type="checkbox"/> country	<input type="checkbox"/> ideas
<input type="checkbox"/> equal			<input type="checkbox"/> prices		

31. original

<input type="checkbox"/> careful	<input type="checkbox"/> closed	<input type="checkbox"/> proud	<input type="checkbox"/> condition	<input type="checkbox"/> mind	<input type="checkbox"/> plan
<input type="checkbox"/> first			<input type="checkbox"/> sister		

32. sensitive

<input type="checkbox"/> feeling	<input type="checkbox"/> interesting	<input type="checkbox"/> thick	<input type="checkbox"/> topic	<input type="checkbox"/> instrument	<input type="checkbox"/> skin
<input type="checkbox"/> sharp			<input type="checkbox"/> clothes		

33. professional

<input type="checkbox"/> paid <input type="checkbox"/> regular <input type="checkbox"/> public	<input type="checkbox"/> advice <input type="checkbox"/> manner <input type="checkbox"/> musician
<input type="checkbox"/> religious	<input type="checkbox"/> transport

34. critical

<input type="checkbox"/> clear <input type="checkbox"/> dangerous <input type="checkbox"/> important	<input type="checkbox"/> festival <input type="checkbox"/> illness <input type="checkbox"/> time
<input type="checkbox"/> rough	<input type="checkbox"/> water

35. synthetic

<input type="checkbox"/> artificial <input type="checkbox"/> electronic <input type="checkbox"/> expensive	<input type="checkbox"/> drug <input type="checkbox"/> meal <input type="checkbox"/> radio
<input type="checkbox"/> simple	<input type="checkbox"/> sound

36. liberal

<input type="checkbox"/> free <input type="checkbox"/> moderate <input type="checkbox"/> valuable	<input type="checkbox"/> crops <input type="checkbox"/> furniture <input type="checkbox"/> parents
<input type="checkbox"/> plenty	<input type="checkbox"/> transport

37. dramatic

<input type="checkbox"/> exciting <input type="checkbox"/> worried <input type="checkbox"/> surprising	<input type="checkbox"/> adventure <input type="checkbox"/> change <input type="checkbox"/> patient
<input type="checkbox"/> official	<input type="checkbox"/> salary

38. conservative

<input type="checkbox"/> cautious <input type="checkbox"/> traditional <input type="checkbox"/> hopeful	<input type="checkbox"/> clothes <input type="checkbox"/> estimate <input type="checkbox"/> meeting
<input type="checkbox"/> warm	<input type="checkbox"/> signal

39. coherent

<input type="checkbox"/> clear <input type="checkbox"/> together <input type="checkbox"/> normal	<input type="checkbox"/> crime <input type="checkbox"/> health <input type="checkbox"/> speech
<input type="checkbox"/> recent	<input type="checkbox"/> theory

40. ample

<input type="checkbox"/> clear <input type="checkbox"/> together <input type="checkbox"/> normal	<input type="checkbox"/> crime <input type="checkbox"/> health <input type="checkbox"/> speech
<input type="checkbox"/> recent	<input type="checkbox"/> theory