

# **Aspects of Word Knowledge: An Investigation of the Explicit Exemplification of Aspects of Word Knowledge in a Global Textbook used in South Korea.**

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## **ABSTRACT**

The term ‘lexical item’ has proved useful in identifying pieces of language which operate as single units. The extent of knowledge required to master these items is more extensive than many teachers and learners may realise. This study aims to learn whether one specific textbook explicitly addresses the full depth of knowledge in activities for its selected lexical items. A framework was developed to analyse the textbook and each unit was examined with a primary focus on the vocabulary sections. Which knowledge aspects in each activity were being exemplified was determined and a count was taken for each. The results reveal that ‘form and meaning’ clearly dominate attention given in activities. A few other aspects (spoken form, written form, word parts) receive some attention but many receive very little or no attention at all. This study advises that the four learning partners (students, teachers, materials writers and researchers) need to be aware of the lexical impact in language and material writers should explicitly address the depth of lexical item knowledge in textbooks

## **INTRODUCTION**

### **1.1: Introduction and Attraction to the Area**

*“We feel comfortable when we are surrounded by friends and acquaintances, but anxious in unfamiliar situations when we are surrounded by strangers. We have friendships of different kinds – close, intense relationships, which, even if relatively infrequent, are the most important in our lives – loved ones who live abroad, for example. But we also have relationships which are frequent but unimportant [...]. The relationships between words closely resemble the relationships between people.” Lewis (2002, p.88).*

I rather like this analogy. Even in your native language you can relate the strength of your familiarity with words to different degrees. Lewis (2002) says learners may be able to understand this analogy well when thinking about words. Thornbury (2002, p.20), along similar analogous lines says “*learning a language is like moving to a new town, it takes time to establish connections and turn acquaintances into friends*”. My reason for investigating vocabulary relates to different degrees of knowing words, even native speakers may not know everything about every word in their language. I chose to research vocabulary because I wanted to better understand its role in second language learning. In the past I shrugged

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‘vocabulary’ off as ‘just words’, however I wanted to investigate it further to gain a deeper knowledge of what exactly it is.

While working in East Asia (Japan and South Korea), I would, on occasion, see teenagers studying English on the subway. I could clearly see on their notebooks English words and phrases populating one side and their native language ‘equivalent’ the other. According to Lewis (2002, p.60) ‘learners have a tendency to translate word for word.’ Although there was no way to really know what strategy these teenagers were employing to acquire these words and phrases, based on experience with these learners I knew they struggled with many parts of vocabulary; in meaning, form and use. I thought this widely adopted technique may not have been the most effective use of time to reach vocabulary goals. Nation (1990, p.127) points out that ‘learning words in lists is only the beginning of mastering new vocabulary, there is much more to learning a word than memorising translations.’ This led me to want to investigate vocabulary and better understand the ‘much more to learning a word’ part, as Nation put it.

For a long time, grammar teaching has dominated ESL (English as a Second Language) classrooms and textbooks; taking pedagogic precedence over vocabulary. However these aspects are not separate but intrinsically linked (Sinclair, 1991). The DIALANG tests (Alderson, 2005) have demonstrated the strong relationship between vocabulary knowledge and language proficiency, and the four learning partners (students, teachers, researchers and material writers [Nation, 2001]) agree that vocabulary is fundamental in mastering another language (Schmitt 2010, p.4). Therefore it is not difficult to recognise the importance of this area for ELT (English Language Teaching). Wilkins (1972, p.111) stated ‘without grammar very little can be conveyed, without vocabulary nothing can be conveyed.’ This means if a learner uttered ‘*Yesterday. Go disco. And friends. Dancing*’ they would very likely be able to convey their intended message. On the other hand if a learner said ‘*I wonder if you could lend me your...*’ it would be very difficult to communicate without the missing word, but if just ‘*calculator*’ was uttered, the speaker would stand more chance of being understood (Scrivener 2011, p.187). This shows words are basic components of language and integral in its development. Additionally, when we consider ‘grammar’ it can be understood that grammar levels off into adulthood, but vocabulary is able to continually grow (Richards 1976). ‘Vocabulary’ is not as simple as it may appear; this area has become an increasingly hot topic over the last few decades as its importance in SLA (Second Language Acquisition) has become better acknowledged. Issues in research have surrounded a ‘word’, what defines a ‘word’ and what it means to ‘know a word.’ Also, the broader term ‘lexis’ has been used more widely. ‘Vocabulary’ and ‘grammar’ are linked, but the lexical influence on language should not be dismissed in favour of grammar.

## **1.2: Value in Textbooks and Aims of Study**

My research into vocabulary concerns textbooks, in particular a textbook used in the context of a South Korean high school. In South Korea English has been seen in recent decades as an increasingly important and necessary element of the school curriculum, strongly promoted by the Ministry of Education (Lee & Macaro, 2013). As well as the government’s interest, many private institutions (or ‘Hagwons’) have been taking advantage of the growing demand for English language teaching. The Korean language is not similar to English, the languages do not share mutual features and in the case of English vocabulary not an easy transition as they

do not share a common origin. I would like to discover whether the manner in which vocabulary is dealt with in a textbook used in South Korea is satisfactory or not.

My focus is exclusively with the textbook and how it explicitly addresses its vocabulary, not with what the teachers or students may do in class. Sheldon (1988, p.237) says coursebooks can be seen as the ‘heart of an ELT program.’ A textbook is something which if made well, can be re-produced in large quantities and distributed, thereby hopefully impacting positively on teaching and learning. McDonough and Shaw (1993 cited in Brown 2011, p.85) state ‘textbooks undoubtedly have a considerable influence on classroom practice, forming the core of most teaching programs.’ Textbooks are highly respected learning tools and sometimes automatically accepted as being of high quality by students. Richards (2001, p.255) lists under advantages of textbooks – ‘they can save time, provide support and be effective language models and input for teachers who may lack experience or language ability.’ A textbook is a valuable piece of teaching material to investigate and it is thought to be the ‘route map’ of ELT programs by many (Sheldon, 1988). As textbooks are expected to be based on theories and principles of language acquisition, they are clearly vitally important and influential in the classroom. If a textbook can be viewed (by learners and teachers) as something interesting, motivating, attractive and inspiring, then it has the potential to make the discovery of another language a joy rather than an arduous task. The problem, as Lewis (2002, p.115) states is ‘even today many textbooks are produced which take a minimal view of vocabulary.’ Therefore because the way we think about language impacts textbooks that are produced, this is a relevant area of investigation to address. By analysing only the textbook, the way it directs learning can be revealed. Conversely by not empirically accounting for teachers or students, the manner in which vocabulary is tackled in class cannot be understood. Teachers and students vary in their actions, but what a textbook prescribes can say a lot about its potential impact on learning. I contend that researchers influence material writers who in turn influence teachers who finally influence students. This succession of influence highlights that if a good textbook is produced and used well, learning can be fruitful.

There have been studies on vocabulary in textbooks (Criado 2009; Brown 2011; Neary-Sundquist 2015; Nordlund 2016), however these studies have utilised multiple textbooks and have differed in their focus to varying extent. This study only analyses one textbook in an investigation of explicit vocabulary within activities. The aim of this analysis is to show the extent to which selected vocabulary items are given attention through ‘aspects of word knowledge’ (Nation 1990; 2001). By adding to studies on textbook analyses, further light can be shone on the quality of textbooks in current use.

The selected textbook is called ‘Pathways 1’, published by ‘HEINLE Cengage Learning’ (2013). It is used in a high-level science high school in South Korea and likely in other contexts also. The book presents itself as ‘the pathway to academic success’ and states ‘key academic and high frequency vocabulary is introduced, practiced and expanded.’ This means the book is academically orientated to some degree. The level for this book is A2, in line with the CEFR (Common European Framework of Reference, 2001), and the sub-title of the book is ‘listening speaking and critical thinking’, all of which, success in is to a degree reliant on learner’s vocabulary knowledge. It is a global textbook which means it has not been made specifically for Korean learners or a high school context. The book was selected purely on the basis that it is used in a high school. I wanted to analyse a book used in a high school because

I consider high school to be a pivotal stage in life and learning, and a subject's ease or difficulty and enjoyment can influence the decision to pursue it further into adulthood.

Many learners fail to reach certain goals in vocabulary, and as Schmitt (2008, p.332) says 'lexical items cannot be assumed to just be 'picked up' from exposure to language tasks.' It goes without saying that the more vocabulary you know the better, but it is the delusion of building vocabulary without fully knowing all there is to know about items that poses a problem. A more explicit means is required for learners to gain a richer lexical knowledge and textbooks play a big part in this.

In the following section I will address the following questions;

- 1) What is a 'word'?
- 2) What does 'lexis' mean and include?
- 3) What does it mean to 'know' a lexical item?
- 4) Is context important in learning vocabulary?
- 5) What have previous studies of vocabulary in textbooks revealed?

## REVIEW OF THE LITERATURE

### 2.1: Defining a 'Word'

'A description of language which takes the word as its starting point offers more powerful generalisations and is more accessible to learners than a structural description' (Willis 1990, p.27).

#### 2.1.1: Vocabulary Size

Reaching a figure for the total vocabulary size people have has not been easy for researchers. Attempts have been made to obtain this vocabulary size information and have produced varying results (Schmitt, 2008). Crystal (2003 cited in McCarthy *et al* 2010, p.7) arrived at 75,000 and 50,000 words that native speakers are able to comprehend and produce respectively, however many researchers (Goulden, Nation & Read 1990; Hirsh and Nation 1992; Nation & Waring 1997, Nation 2006) concerned with vocabulary size measurements tend to use the notion of 'word family' to reach a figure. A word family is a headword plus all its inflected and derived forms (Read 2000; Nation 2001). For example; 'walk' would be a headword with 'walks', 'walked' and 'walking' its inflected forms (Schmitt, 2000), and 'walker' or 'walkable' would be derivatives. This may mean that an educated native English speakers' vocabulary size would be somewhere between 16,000 and 20,000 word families (Schmitt 2010, p.7). Nation and Waring (1997) claim that learners should reach a vocabulary threshold of between 3000-5000 word families in order to be able to start reading authentic (for native speakers) texts. The gap between native speakers and non-native learners is usually substantial (McCarthy *et al* 1997, p.8) and it is evident that 20,000 word families is

not a realistic goal for many ESL learners. It is vital though that a learner has a solid understanding of the most frequent 2,000 – 3,000 words of English; by doing this their text comprehension would improve significantly (Nation & Waring 1997, p.10). Later as they expand their vocabulary there will be fewer unknown items to impede comprehension.

### **2.1.2: A ‘Lexical Item’**

Defining a ‘word’ has caused issues for researchers (Read 2000; Schmitt 2000; Nation 2001). Individual words usually come to mind when thinking about words and this seems quite understandable. On the contrary, as we see; are ‘big’ and ‘bigger’ the same word or two separate words? Is ‘won’t’ one word, even though we know it as the contraction of ‘will not’? What about ‘leg’, its most common core meaning being - a body part, but ‘leg’ could also refer to part of a chair or table, or even a race, extending our sense of ‘leg.’ It could be argued that they can all be considered ‘words’ as they operate as single items containing a meaning separate from others which appears similar or even the same in form. It is a challenging task to narrow down what counts as a ‘word’, for this reason the term ‘lexical item’ is more useful due to some units of meaning being larger than just one word or not quite the conventional idea of ‘word.’ A lexical item being - ‘a single meaning unit, regardless of the number of words it contains’ (Schmitt 2008, p.354). This adequately accounts for the variety in vocabulary items.

## **2.2: Lexis**

### **2.2.1: Introduction**

As vocabulary became better understood, the broader term ‘lexis’ began to be used by researchers to encompass the range of what could be included when discussing vocabulary items. Using the term ‘lexis’ rather than simply ‘vocabulary’ signifies a ‘radical change in the way we see and analyse language’ (Lewis 2002, p.89). Being aware that sequences of words operating as single meaning units stand somewhat separate from ‘grammar’ helps to recognise the lexical effect on language patterning. Evidence provided by large corpora (collections of texts) has revealed lexical patterning dictates language choice not the previously thought ‘grammar’ (Schmitt 2000, p.14).

Despite their linking research has discovered fluently produced language to be more lexical than grammatical in its operation. Our choice of words in particular sequences which can be recognised as ‘lexis’ greatly accounts for much English language construction. The term ‘lexical item’ refers to words but also MWUs (Multi Word Units) (Moon 1997; Schmitt 2000; Lewis 2002) which have varying degrees of fixedness. This ‘fixedness’ can range from a single item in which the form cannot be altered in any way, to items which allow changes to their form. Nattinger and DeCarrico (1992) emphasised the role that ‘lexis’ plays in the functions it performs, and the way (as they term) ‘lexical phrases’ are stored in memory which can be accessed automatically.

### **2.2.2: ‘Native-Like’**

In a frequently cited article, Pawley and Syder (1983) highlight an interesting point that there are a large number of grammatically acceptable possibilities that native speakers could construct, but they do not as they would seem odd. Pawley and Syder proposed – ‘native-like selection’ and ‘native-like fluency’ as two explanations for the automaticity in language use

by native speakers. Native-like ‘selection’ and ‘fluency’ mean the most appropriate thing to say is chosen and these appropriate pieces of language are produced fluently. The given explanation for this is that chunks of language (of differing size) are stored mentally and able to be used automatically and procedurally (Pawley & Syder, 1983). Pawley and Syder say ‘native speakers do not exercise the creative potential of syntactic rules to their full-extent’ (1983, p.193). This can be seen in the example; *‘I’m so glad you could bring Harry’* vs *‘That you could bring Harry gladdens me’*, both are grammatically correct, but only the first one would be understood as ‘normal’ speech. The implications are that ‘sounding native’ is not achieved by knowing grammar rules as such, but by being able to produce continuous stretches of spontaneous speech which are understood as native-like. Thus lexis can be seen to play a critical role in fluent language.

### **2.2.3: Collocation**

As previously mentioned, the most well-known lexical item is simply the ‘word.’ However, as Lewis (2002) explains there are a great deal of lexical items which come under the MWU bracket which operate as single items and there are also overlaps within MWUs types. According to Lewis (2002) ‘collocation’ and ‘institutionalised expressions’ are the two most important MWUs. Collocation - understood as ‘the way individual words co-occur with others’ (Lewis 2002, p.93). Collocation was first talked about by J.R. Firth in the 1950’s who took the view that ‘the meaning of many words could be equated with the sum of their linguistic environment’ (cited in Singleton 2000, p.20). Collocational knowledge is essential according to Pawley and Syder (1983) in order to use language fluently and appropriately. Nation (2001) states collocation can be grammatical (syntactic or colligational), or lexical (co-occurrence in linguistic environments). Grammatical collocations are usually a noun, verb or adjective plus a particle, such as *‘worried about’* or *‘come by’*, and lexical such as *‘hugs and kisses’*, *‘pick a fight’* or *‘play a game.’* However, determining what should be deemed collocation is the challenging part. Collocation can entail co-occurrences being right next to the item in question, or further away. Kennedy (1998 cited in Nation 2001, p.330) gives *‘silk’* as an example of a word collocating regularly with a ‘colour’ word but not next to it. What is important to recognise is that collocation as a lexical construct can reveal patterns in language use that exemplify MWUs as being available from memory for automatic usage in which grammar plays little part. Collocation is in line with Sinclair’s (1991, p.110-115) ‘idiom principal’ which argues that linguistic choices made are more restricted than once thought. Sinclair’s other proposed principal the ‘open choice principal’, views grammaticalness as the only factor affecting language choice (Sinclair 1991, p.109). However as we saw earlier in the sentences about ‘Harry’, even though stretches of languages are produced which are grammatically correct, this is just not accepted in social discourse. Therefore the ‘idiom principal’ can be observed in the lexical nature of chunks of language.

McCarthy *et al* (2010) point out less frequent words which combine regularly with specific words are noteworthy because the meaning carried is fixed in language, thus making it difficult to recognise. Moon (1987 cited in McCarthy *et al* 2010, p.31) found in the Bank of English corpus that 99% of the instances of *‘torrential’* collocated with *‘rain.’* McCarthy *et al* (2010, p.30) state words such as *‘the’* which combine with many words are ‘weak collocators’, whereas words such as *‘benignly’* would be considered ‘strong collocators’ Carter lists different types of restrictions collocation can have as;

- 1) Unrestricted collocation: This relates to items which can be found alongside a range of items such as 'take' e.g. 'take a look, a holiday, a rest, time.' Also 'run' with its 'managing sense', as in 'run a business, car, shop, football team.'
- 2) Semi-restricted collocation: With these there is less choice for slots, such as 'harbour doubt/uncertainty/suspicion.'
- 3) Familiar collocation: These would be words which are often seen together e.g. 'vicious circle, innocent bystander, lukewarm reception.'
- 4) Restricted collocation: There is no freedom of choice here, e.g. 'dead drunk', 'pretty sure', or 'pitch black.' (Carter 1987, p.63).

It is thus understood that there is a spectrum of collocation in which different degrees of restriction exist, and in terms of Sinclair's 'idiom principle' it can be acknowledged that words are produced in a socially predicable way, not completely restricted but certainly not completely creative. Howarth (1998) and Grainger (1998) (cited in McCarthy *et al* 2010, p.35) both concluded in their collocation studies that non-natives under-use native-like collocations and Laufer and Waldman (2011) suggest that productive mastery is the issue with collocation rather than merely recognition of correct collocations, indicating this strive to be native-like (as Pawley and Syder discussed) could be tackled at least partly by building collocational knowledge.

#### 2.2.4: Other MWUs

Several researchers such as Alexander (1984 cited in Schmitt 2000, p.102), Nattinger and DeCarrico (1992) and Moon (1997) have categorised MWUs. Moon (1997, p.43) defines MWUs as 'two or more words (a word being an orthographic unit) which semantically and/or syntactically form a meaningful and inseparable unit.' Moon suggests 'institutionalisation', 'fixedness' and 'non-compositionality' to be criteria to employ in defining MWUs. She also states that MWUs are due to fossilisation of language rather than the operation of grammatical rules - meaning any words formed grammatically (inflected, passive verb form etc.) would not be included as a MWU.

#### MWU examples;

MWU	Example
Compounds	'Blackmail', 'rainfall', 'greenhouse'
Phrasal verbs	'Mix up (confuse)', 'give up (quit)'
Fixed expressions	'Ladies and gentlemen', 'fish 'n chips'
Idioms	'Play it by ear', 'rock the boat'
Lexical phrases	'I know what you mean', 'that reminds me'

It is these kinds of lexical items which can be seen to dictate the automaticity of the English language. Wong-Fillmore (1976 cited in Schmitt 2010, p.138) in a study of Mexican children

in an English medium school found that such formulaic language is used as a quick means of communication, this means by using the correct lexical items in sequence second language learners could be 'accepted.' Wray (2002) also supports this assertion of the use of formulaic sequences by L2 learners, especially when they lack proficiency, this makes it seem like they know the language, even when this is not the case. The problem however has been in identification, as the amount of formulaic language is difficult to quantify, Wray (2002) found more than 50 terms to describe formulaic language.

The incorrect use of MWUs can expose learners' lack of proficiency (Low 1988, Kjellmer 1991 cited in Moon 1997, p.58). The identification of units of speech which are stored and ready for automatic use exemplifies the pedagogic importance of lexis and the range of lexical items in existence. Baker and McCarthy (1988 cited in Moon 1997, p.57) suggest if MWUs are embedded in a syllabus they will be less of a hurdle for learners.

### **2.2.5: Phrasal Verbs**

Dagut and Laufer (1985 cited in Schmitt 2000, p.99) found that learners of English tend to avoid phrasal verbs. Thornbury (2002) exemplified that knowing the meaning of 'put' and 'up' means an utterance such as; 'I put up a shelf' can be understood, unlike 'I put Luke up' or 'I put up with Luke' in these non-literal phrasal verb usages. Alejo (2008 cited in Littlemore 2011, p.48) found in his studies, avoidance of phrasal verbs by learners whose first language was 'verb framed' (using the verb to show the path of movement). Choi and Bowerman (1991) studied the differences in verbs of motion expressed by English and Korean children, as Korean is a verb framed language and English a satellite framed (movement expressed outside the verb). This highlights the difficulty with lexical items such as phrasal verbs.

## **2.3: The Mental Lexicon**

'The mind is not a machine we can open up and see how it works' (McCarthy *et al* 2010, p.101).

### **2.3.1: Connections in the Mind**

Vocabulary understanding and acquisition is predicated on mental representations of concepts in our minds. The 'mental lexicon' is our storage of lexis in our head. Often conceptualised as a network or web, the mental lexicon is never 'finished' so to speak. Connections are continually being reinforced (McCarthy *et al* 2010, p105). Despite the disheartening opening quote of this section, and that the lexical network in our heads is not easy to explain, research has concluded there does appear to be organisation to the way lexis is stored mentally (Schmitt 2000, 2014, McCarthy *et al* 2010, Littlemore 2011, Aitchison 2012). Aitchison (2012) explains – as there are so many words we can store which are able to be retrieved at such speed, this suggests structure. However, there is no overall understanding of vocabulary acquisition or the exact structure of the mental lexicon (Nation 1990). Meara (1996 cited in Schmitt 2010, p.247) and Nation (2001) have pointed out that knowledge of lexical items do not operate in isolation, but together with other items in the mental network. As Langacker (1987 cited in Littlemore 2011, p.8) states 'words and phrases act as access nodes within the network', tools that 'activate different areas of knowledge to different degrees and in different contexts of use.' Henriksen (1999) and Aitchison (2012) say the forming and restructuring of connections between lexical items in our head can be referred to as 'network



building.’ Naturally, when beginning to learn a language, building up a large vocabulary is crucial but this vocabulary needs to be organised as it grows so that a deeper knowledge of items and how they relate can be nurtured. Understanding how the lexicon is organised has received some research time and effort, but it has not been wholly conclusive.

### **2.3.2: *Word Association Studies***

‘Word association’ studies have most commonly been done in attempts to explore the structure of the mental lexicon. According to Schmitt (2000) these types of studies are beneficial as they provide clues to mental lexical relationships. They also assist in understanding a person’s encyclopedic knowledge (all information in our minds [Evans and Green 2006 cited in Littlemore 2011, p.65]) which can be seen both in comprehension and production (Littlemore 2011, p.74). Word association tests involve participants making a connection with a word usually referred to as the ‘prompt’ or ‘stimulus’ word. Many word association tests examine three types of response; ‘clang’ (similar in form to the prompt word), ‘syntagmatic’ (different word class response) and ‘paradigmatic’ (same word class response) (Schmitt 2000, 2014). Research has shown with age and proficiency, that associations move from ‘clang’ (mostly with younger participants) and from ‘syntagmatic’ to ‘paradigmatic’ as language develops (Woodrow & Lowell 1916, Ervin 1961 cited in Schmitt 2000, p.40). Meara (1983 cited in Schmitt 2000, p.41) found that although non-native English speakers’ vocabulary sizes are smaller than native speakers their association responses are much wider. This is likely to mean learners of English do not have the same lexical organisation as native speakers.

In 1997 Paul Meara and Norbert Schmitt conducted a study into word associations. The study involved two word association tests, one at the beginning and one at the end of an academic year, testing reception and production for 95 Japanese students of secondary or post-secondary level. Overall participants increased their vocabulary however results indicated that receptive and productive vocabulary did not develop in tandem due to participants only being able to make 50% native-like associations. Words checked as ‘known’ were only known in a traditional meaning-centred way (Schmitt & Meara 1997, p.29). Vocabulary appears to be in a ‘state of flux’ (Schmitt & Meara 1997, p.25), and Meara (1997) in a different publication stated the ‘receptive – productive continuum’ of vocabulary knowledge is actually not continuous but rather it appears words can move around to different degrees of receptive and productive mastery (complete lexical item knowledge) and even be forgotten. Schmitt (1998) also found no hierarchy of vocabulary development, making conclusions about vocabulary growth difficult to draw.

Researchers such as Fitzpatrick (2007) have pointed out flaws in word association studies, such as prompt words having too predictable responses and also as word frequency decreases native speaker responses become more varied. The mental lexicon is still unclear (Schmitt, 2010) and word association studies do have pitfalls, however despite the criticism the Schmitt and Meara study called for the learning of different aspects of word knowledge (discussed in section 2.4.2). Researchers agree that developing receptive knowledge is easier than productive, although it is still not clear why this is exactly, but it is accepted that receptive knowledge is usually larger than productive and also precedes it in acquisition. Melka (1997) and Laufer (2005 cited in Schmitt 2014, p.923) came to different conclusions about the gap in receptive and productive knowledge and Waring (1999 cited in Schmitt 2014, p.923) found

that the level of difficulty in receptive and productive tests has led to possibly unreliable measurements. Despite studies conducted into receptive and productive levels of vocabulary there is still a lack of conceptualisation about them exactly, with some researchers using terms like – ‘recognitional’ and ‘actual’, ‘understanding’ and ‘speaking’ or ‘passive’ and ‘active’ instead. Melka however says it is possible a distinction exists (Melka 1997, p.84-88). Studies such as Laufer and Goldstein (2004) and Milton and Hopkins (2006) have shown somewhat similar results indicating that as words become less frequent, the gap in knowledge widens.

## **2.4: Knowing a ‘Word’**

### **2.4.1: Introduction**

In classrooms and in research people talk about words they have ‘learnt’ and words they ‘know’, but how is it decided that someone has ‘learnt’ and therefore ‘knows’ a word? It certainly seems that people claiming to ‘know’ a word very likely do not have as deep a knowledge of it as they potentially could have. Read (1993, p.357) defined this depth as ‘the quality of the learner’s vocabulary knowledge.’ It must be made clear there is more to knowing a word than simply knowing form and meaning. Laufer and Goldstein (2004) found there to be a relationship between size and depth of vocabulary as testing size requires some demonstration of item knowledge. As we have already come to understand, the mental lexicon is a network of connections in our head, so if we take what Meara and Wolter said to be true - ‘vocabulary size is not a feature of individual words: rather it is a characteristic of the test takers entire vocabulary’ (2004, p.87), then we can acknowledge that adding to knowledge of lexical items is beneficial for overall vocabulary development and likely overall language ability.

### **2.4.2: To ‘Know’ a Word**

What is ‘word knowledge’ and how can we really know a word? To say you ‘know’ a word (or lexical item) has been traditionally seen as existing in two states, either ‘know’ or ‘don’t know’ with ‘knowing’ understood as form plus meaning. But as Haley (1995 cited in Henriksen 1999, p.307) states ‘learners do not know a word on an all or nothing basis, but go through phases of partial knowledge.’ As research has revealed (Richards 1976; Meara & Schmitt 1997; Schmitt 1998, Schmitt & Dunham 1999; Read 2000; Nation 2001; Meara 2002; Thornbury 2002; Laufer & Goldstein 2004) knowing any lexical item entails a much deeper knowledge than simply ‘know’ or ‘don’t know.’ However as there are a range of conceptions of depth of word knowledge theoretical approaches are difficult to understand. However to claim someone has a large vocabulary requires that they have a satisfactory knowledge of each vocabulary item.

Scales of vocabulary development have previously been produced. Paribakht and Wesche’s (1997) ‘Vocabulary Knowledge Scale’ (VKS) which contains five stages of knowledge in which learners can decide their level of knowledge of vocabulary items. On one end of the scale is ‘no knowledge’ and on the other is stating the ability to use the vocabulary item in a sentence. Schmitt and Zimmerman (2002) developed a similar scale consisting of four stages. Stage ‘A’ is ‘*I don’t know the word*’ and stage ‘D’ is ‘*I know this word and can use it in my own speaking and writing.*’ However a dimensions approach to vocabulary recognises that knowledge is likely not on a continuum as mentioned by Meara (section 2.3.2) and therefore

it is inadequate to choose a stage of knowledge when different aspects of knowledge may develop differently.

Richards (1976) and Nation (1990; 2001) are the two most notable researchers to have directed attention to the complexities of ‘word knowledge.’ Richards first explicitly detailed the different aspects of what it means to know a word;

Knowing a word;

- 1) Means knowing the degree of probability of encountering that word in speech or print.
- 2) Implies knowing the limitations on the use of the word according to variations of function and situation.
- 3) Knowing the syntactic behaviour associated with the word.
- 4) Entails knowledge of the network of associations between that word and other words in the language.
- 5) Means knowing the semantic value of the word.
- 6) Means knowing many of the different meanings associated with the word.

(Richards 1976, p.83)

Fourteen years later, Nation in 1990 and then revised in 2001, developed a chart of word knowledge aspects. This differed from Richards in that it was more detailed, but mainly because it made a distinction between ‘receptive’ and ‘productive’ knowledge.

<b>Form</b>	Spoken	R- What does the word sound like? P- How is the word pronounced?
	Written	R- What does the word look like? P- How is the word written and spelled?
	Word parts	R- What parts are recognisable in this word? P- What word parts are needed to express this meaning?
<b>Meaning</b>	Form and meaning	R- What meaning does this word form signal? P- What word form can be used to express this meaning?
	Concepts and referents	R- What is included in the concept? P- What items can the concept refer to?
	Associations	R- What other words does this make us think of? P- What other words could we use instead of this one?
<b>Use</b>	Grammatical functions	R- In what patterns does the word occur? P- In what patterns must we use this word?

	Collocation	R- What words or types of words occur with this one? P- What word or types of words must be used with this one?
	Constraints on use (register, frequency...)	R- Where, when and how often would we expect to meet this word? P- Where, when and how often can we use this word?

(Nation 2001, p.27)

Nation (2001) says that learners should become aware of what knowing a word (or lexical item as we can say) involves. This means that ‘mastery’ demands a person must have receptive and productive knowledge of all nine aspects. Of course, this does not mean every lexical item must be mastered but just highlights the task of mastering an item is more substantial than form plus meaning. For each individual item each of the different types of word knowledge is likely ‘known to different receptive and productive degrees’ (Schmitt 2010, p.225). An example of all that is needed to ‘master’ the word ‘underdeveloped’ can be found in appendix 5.

A word or lexical item which can have many different meaning senses is called ‘polysemous’ (Miller 1999, McCarthy *et al* 2010) like the previously mentioned senses of ‘leg.’ Polysemous words can pose problems for learners who are not aware of the differing meaning senses they can express (Foraker, S. & Murphy 2012). Unfortunately, most polysemous words are content words and thus most frequently used. Dictionaries can help as they distinguish between their usages (Sinclair, 2004) but they can also fail to provide adequate richness of data (Atkins 1998, p.193). Crossley, Salsbury and McNamara (2010) studied L2 learners’ (from an intensive English program) use of polysemous words over twelve months and concluded that vocabulary size correlates with increased use of polysemous words. It seems the only way to understand polysemy is to be aware of it and to be exposed to many instances of it in order to readjust conceptions. As Schmitt (2014, p.931) states ‘polysemous words can mean different things in different contexts.’ This suggests context is essential to fully grasp the meaning sense being used (this will be discussed in section 2.7).

## 2.5: General vs Academic Vocabulary

Some vocabulary studies have been concerned with corpus data and frequencies, however this textbook analysis is not focused on whether the words chosen are the right ones or not but only with how they are explicitly made a focus in activities. However as Pathways 1 is academically orientated to some degree, is used in a high-level science high school and contains academic vocabulary items, it is useful to mention what is different about more academic in nature vocabulary which differs from general vocabulary in that it is more frequent in academic texts (spoken and written). Academic vocabulary poses a challenge for learners as it is Graeco-Latin, contains morphologically complex words, sometimes nominalised parts of speech and conveys abstract ideas (Carson 1997; Nation 2001; Nagy & Townsend 2012). If learners have built up a solid understanding of the most common 2000 – 3000 words of English, then progressing to academic vocabulary may be appropriate.

## 2.6: The Learning Burden and L1

The relationship between the L1 (first language) and L2 (second language) is significant when discussing language learning. As researchers have discovered ‘L2 lexical processing (dissecting and understanding lexical items) is active from beginner to advanced level learners’ (Jiang 2002 cited in Schmitt 2008, p.337). The influence of the L1 is not always negative as many may think but it exists and is called ‘cross-linguistic influence’ (Schmitt 2010). The ‘learning burden’ of a word, as Nation (2001, p.23) puts it is ‘the amount of effort it takes to learn it.’ The burden is high if the L1 and L2 are not closely related, which is the case between English and Korean. Schmitt (2010, 2014) lists a range of factors influencing the learning burden related to the extent of similarity between the L1 and L2. These include phonemes - the suprasegmental system (pitch, stress, juncture and degree of sound-symbol correspondence), morphological aspects (inflections, derivations) and the representation of semantic space. Each culture’s semantic space (how the ‘real-world’ is represented) is usually uniform, but language evokes different conceptions and connections in each individuals mind (Evans and Green 2006 cited in Littlemore 2011, p.13). Imai (2000 cited in Littlemore 2011, p.28) showed the difference in the ways native English and Japanese speakers represent things in a categorisation study. The English subjects categorised according to count and non-count ability, whereas the Japanese subjects categorised according to shape. This means it can be acknowledged that the greater the distance between languages, the greater of a challenge it is to take on new ways of conceptualising things, as is the case between English and Korean. Korean is a verb framed language (previously mentioned in section 2.2.5) and Korean adjectives can come in continuous form highlighting differences in parts of speech (Swan, 1997) which differs from how English is expressed. De Groot (2006 cited in Schmitt 2014, p.71) states words are easier to learn if they have an L2 ‘cognate’ (orthographic and phonologic similarity) but this is not the case with English and Korean, and the effect of the learning burden appears high for Korean learners taking on English lexical items.

Lewis (2002) talks of learners’ tendency to translate word for word, also Forghal and Obiedar (1995 cited in McCarthy *et al* 2010, p.34) say learners rely on translations. Ellis and Beaton (1993) suggest that translation is the only link available in the early stages of language learning, however when the two languages differ so greatly the translation may not be precise. If learners struggle with the acquisition of lexical items, then they will not be ‘excited about their progress’ as Nation lists as a vocabulary learning goal (2001, p.398). It has already been seen that the notion of ‘word’ is not simple but despite the negatives flagged for the learning burden in relation to Korean as the L1, the L1 does have positives. It can aid initial meaning and Swan (1997) suggests teaching L1 – L2 background knowledge to compare languages.

## 2.7: Context and Recycling

‘In English the associations between a word and language in use is very much a feature of the way in which linguistic events are talked about in ordinary parlance’ (Singleton 2000, p.2).

### 2.7.1: Context

Collocation, which was mentioned in section 2.2.3, plays a big part in the patterning of language. The only way we can truly build knowledge of what words and lexical items occur

in the vicinity of each other is to see them as they are used in context, and not just once but many times. Sinclair (2004, p.160) emphasises ‘a word on its own has no starting point’, which is why a lexical item can only be built up through the examination of its use.

Nagy (1997, p.64) gives two reasons why context is important;

- 1) A word’s meaning is mediated by many contexts.
- 2) Context provides input for language users to pick-up large amounts of vocabulary knowledge.

Context cannot be emphasised enough. Hoey (1991) and Schmitt (2014) argue against learning words in isolation as decontextualizing lexis will likely restrict a deeper understanding of it. Sonaiya (1991 cited in Singleton 1999, p.145) explains that the primary task in vocabulary acquisition is the ‘readjustment of boundaries between lexical items’, hence context is critical for this to happen. By strengthening the mental lexical connections this can deepen our knowledge of items (such as polysemous ones) and by enabling learners to see lexical items in various contexts this should add to their knowledge of items. Bogaards (2001, p.325) says (about learners) ‘they learn a first sense here, something about its use there, and another somewhere else’, and a study by Fischer (1994) highlights context as crucial for meaning acquisition. Willis also emphasises the importance of context in learning. Willis (1990, p.80) argues for learners to be provided with patterns of language in order for them to see what words and how these words feature in patterns. Concordance lines can be useful for this; these are when large corpora are used to display an item (the node) in the middle of real contextualised example sentences allowing the surrounding linguistic environment (the context) to aid in gathering information. Miller (1999) argues for context to understand how words are used. Both Willis (1990) and Miller (1999) advocate for learners to get as many opportunities as possible to be exposed to forms otherwise knowledge of them will not be built upon. It is hard to deny the benefit of building vocabulary knowledge gradually through context and in terms of word knowledge mastering items would be impossible without context.

### **2.7.2: Recycling**

As mentioned, not only do we need a context but we need more than one so that stronger associations and a better understanding can be reached which is something integral cognitively (Littlemore 2011). Recycling of lexical items is also necessary in the quest to master them. Nation (2001, p.81) found after reviewing studies on repeated exposure that a range from five to twenty repetitions was needed to ‘learn’ words. Nation (1990, p.45) had earlier argued for consolidating previously studied words as more important than learning new words. Webb (2007) found that learning could be achieved after about ten item repetitions in context. Barcroft (2015) also advocates for frequent exposure and repetition of items, moreover research (Blachowitz & Fisher 2000 cited in Nagy & Townsend 2012, p.96) has shown multiple opportunities in multiple contexts can aid vocabulary learning. Learning without chances for repetition will likely lead to vocabulary attrition, diminishing lexical knowledge, after all as the saying goes ‘if you don’t use it you lose it.’ Graves (2011, p.541) who also emphasises context, says activities need to involve in-depth processing and have multiple exposures to words. He later (2014) promoted the term ‘transfer’ which he contends learners need. This is the ‘ability to extend what has been learned in one context to a new

context.’ This is a very autonomous goal for learners who are actively engaged in the learning process, but there is a danger of learners over-generalising.

### ***2.7.3: Extensive Reading***

Many researchers (Nation 2001; Horst 2005; Brown 2009; Macallistar 2010; Daskalovska, 2015) argue in favour of ‘extensive reading.’ Extensive reading is when students read many texts for enjoyment in order to make gains in L2 proficiency. Research has shown this to be beneficial for vocabulary development, however Webb and Chang (2015) suggest that gauging a students’ vocabulary knowledge prior to extensive reading would be useful as they found prior vocabulary knowledge to affect vocabulary learning through extensive reading. Research has found both explicit and incidental vocabulary learning to be of value, however Davis (1995 cited in Brown 2009, p.239) mentioned benefits of extensive reading do take time to become known. Additionally, there is no assurance of the amount of lexical knowledge that may be ‘picked-up’ (Paribakht & Wesche 1997, p.174). Paribakht and Wesche (1997) conducted a study investigating reading and instruction. They found that with only reading words were acquired but not to a productive level.

### ***2.7.4: Summary***

Textbooks must recognise the importance of context and the need to be exposed to items repeatedly as this will likely promote deeper processing and awareness (task dependent). Nation (1990, 2001) argues for repeated exposures but for some aspects of word knowledge to be acquired incidentally. As will become clear in the next section, I will make the case for all nine-word knowledge aspects to be addressed explicitly in textbooks. It is not necessary to know everything about every lexical item, but being aware of what it takes to truly ‘master’ an item is likely very useful.

## **2.8: Previous Studies on Vocabulary**

In this section I will report on three studies conducted in relation to vocabulary in textbooks. The three studies are similar yet varied, and all helped to clarify this study.

### ***2.8.1: Textbook Study One***

The first study looked at is an investigation by Craido (2009) which examined one specific textbook entitled ‘Valid Choice 2.’ The book is intended for B1 level (in reference with CEFR 2001) and aimed at Spanish learners; also the manual is adapted to the Spanish Bachillerato (equivalent to A Level/Highers) syllabus.

The study takes into account conditions for vocabulary acquisition from a psycholinguistic and neuro-linguistic perspective. This includes; opportunities for repetitive practice, communicative relevancy of lexical items related to frequency, the potential of vocabulary acquisition relating to the amount of lexical items introduced and the nature of activities in relation to explicit or incidental learning (Criado, 2009). This study does not solely analyse vocabulary for exemplification of word knowledge aspects but in its analysis of activities it finds a third of activities have an explicit focus on vocabulary (Criado 2009, p.55). Criado details that the explicit – incidental balance is addressed but due to issues of word frequency and lack of rehearsal and repetition states the book is inadequate. This study is relevant as it analysed a textbook in relation to vocabulary, it took a broad view and it advocates for context and repetition in aiding long term vocabulary retention.

### 2.8.2: Textbook Study Two

The next study is more in line with my study as it analysed textbooks in relation to aspects of word knowledge but differed in that the target language was German. Five beginner textbooks used in American universities were analysed and only conclusions about what was addressed in the textbook could be made as teachers and students were not accounted for. This investigation revealed some interesting findings; it revealed that within each part of word knowledge - form, meaning and use, the sub-aspects within each were unevenly focused on in activities (Neary-sundquist 2015, p.72-3). ‘Use’ was exemplified most in activities, making up 48.5% of representation across the five textbooks (2015, p.73); however, ‘grammatical functions’ dominated this and ‘collocation’ was severely underrepresented. ‘Meaning’ was next and ‘form’ least accounted for in attention given in activities. ‘Form’ did not get enough explicit attention at all, as all three aspects within form (written, spoken and word parts) were largely neglected. Overall ‘form and meaning’ and ‘grammatical functions’ made up the majority of vocabulary focus in activities, with much less attention to the others.

### 2.8.3: Textbook Study Three

The last study chosen to examine used a total of nine textbooks of general English which were of three levels – beginner, pre-intermediate and intermediate. The only selection criterion was to collate books from a range of publishers. In this analysis by Brown (2011), Nations (2001) aspects of word knowledge were used as a basis to adapt a framework to analyse the activities within the nine textbooks in an attempt to uncover the extent to which the aspects of word knowledge were explicitly focused on. Brown defines a vocabulary item as ‘a single word or any type of phrase or expression’, he also makes clear that an ‘activity’ is ‘anything that the learner is asked to do’ and a vocabulary activity ‘focuses on form, meaning or use of items’ (Brown 2011, p.86-7). The table below shows Brown’s adapted framework for analysis;

**Table X**

Spoken form	An activity that requires students to notice the spoken form of an item or to produce its features. An activity that involves matching the spoken form to the written form. Activities that include the spoken form of items (e.g. In a listening passage), but draw no special attention to the form are not included.
Written form	An activity that focuses students’ attention on the spelling of items. Activities that involve reading or writing the items as part of the process of doing something else are not included.
Word parts	An activity that focuses attention on the parts of a word, e.g. By comparing the different forms of a word. An activity that involves the parts of multi-word items.
Form and Meaning	An activity that involves matching form and meaning (expressed as, e.g. definitions or pictures). An activity that involves recalling forms from meanings or recalling meanings from forms. An activity that explains the meanings of items.
Concept and referents	An activity that involves considering what is and what is not included in a words meaning, e.g. by comparing similar items.



Associations	An activity that involves matching items with or producing synonyms or opposites or that asks students to group items under different categories.
Grammatical functions	An activity that requires students to manipulate a word in some way with respect to a sentence, e.g. by adding it to the sentence in the correct position. An activity that explains the patterns an item appears in or that asks learners to find these patterns. Activities that simply ask students to use the items in speech or writing are not included.
Collocations	An activity that involves matching the parts of a collocation or that requires the addition of one half of a collocation.
Constraints on use	An activity that involves matching items from different registers, or classifying items as belonging to different registers. An activity that explains the constraints of an item.

(Brown 2011, p.88)

Brown wanted to accurately determine which aspects of word knowledge the textbook writers intended learners to gain from activities. This meant if the exposure was only ‘implicit’ and not an ‘explicit’ aim of an activity then this was not seen as matching the ‘explicit focus on word knowledge aspects’ criteria (Brown 2011, p.87). Brown noted that it was difficult to determine the focus of an activity, but explained that by using his ‘activity-aspects definitions’ (table X) the focus could be pinned down well enough. Brown gives an example as an activity looking at ‘collocates’ of an item marked as ‘collocation’, however he explains that examining collocates also involves consideration of concepts connected with that item and so there is technically a cross-over with ‘concepts and referents’ (Brown 2011, p.87).

What was found in this study was that across all nine textbooks only ‘spoken form’ (14% overall), ‘form and meaning’ (51.8% overall) and ‘grammatical functions’ (29% overall) received consistent attention (Brown, 2011, p.88), with ‘form and meaning’ dominating. It was observed that ‘grammatical functions’ focus seems to decrease as the level of the textbook increases, however Brown suggests (as noted by Nation) that by about intermediate level it is assumed that grammatical knowledge is ‘picked-up’ incidentally by learners (Brown, 2011, p.90). The other six aspects of word knowledge were found to receive little to no attention throughout the nine books. Brown calls for all nine aspects to be clearly given attention in textbooks (2011, p.93), explaining that this would help raise awareness for teachers and learners debunking the prevalent notion that form and meaning is all it takes to ‘know a word.’ He argues that if learners ‘know’ items very well they will know the different aspects of knowledge thus being more able to use them automatically as long as they are stored in memory. Brown contends that effective materials would result from a more structured look at aspects of vocabulary knowledge (Brown 2011, p.93).

## 2.9: Summary and Research Questions

Throughout this review of literature into the area of lexis it has been seen that when we look at language from a more lexical point of view we can understand its patterning more concretely. Defining a word, understanding what lexis encompasses, recognising the depth of knowledge needed to fully master a ‘lexical item’ and acknowledging the importance of

repeated contexts has revealed much about ‘vocabulary’ that readers may not have known prior.

Of course, ‘incidental’ acquisition can occur, as Nation (2001) argues - some aspects of word knowledge such as ‘collocation’ are better left to ‘incidental’ learning, however when ‘words’ or ‘lexical items’ are ‘picked-up’, what does this mean exactly? I agree with Brown (2011) that explicitly drawing attention to all nine aspects of word knowledge when introducing and practicing lexical items is important. Nagy (2005 cited in Hierbert & Kamil 2005, p.28) says ‘intensive or rich vocabulary instruction requires giving students both definitional and contextual information (what a word means and how it is used) and providing them with opportunities to process this information deeply by applying it in ways that require creativity and connections with their existing knowledge.’

Throughout this literature review it has become clear that language is more lexicalised than might have been suspected and there is more to knowing a lexical item than it once seemed. The textbook should make aspects of fully ‘knowing’ a lexical item aware for students. Of course the acquisition process is incremental and each learner will develop individually however a person’s lexical item knowledge depth may say a lot about their language ability. I am uncertain what will be found in this analysis of the textbook in question, but I will see what emerges with results.

As such these questions will be answered by the end of this analysis;

- 1) To what extent do activities within Pathways 1 explicitly exemplify aspects of word (lexical) knowledge of the selected vocabulary items?
- 2) Do the lexical items get more receptive or productive attention?
- 3) Is context used effectively to exemplify the vocabulary items?
- 4) Are the selected items explicitly recycled to exemplify other aspects of lexical knowledge?

## **METHOD**

### **3.1: Introduction**

The vocabulary items explicitly selected in the book (appendix 2) were taken as data in an effort to be able to quantify the extent and depth of their explicit attention given in vocabulary activities. Just over 25% of the vocabulary items selected for explicit focus in Pathways 1 can be identified as ‘academic.’ This is known because it states in the book that they have been taken from the AWL (Academic Word List) (Coxhead, 2000). The AWL is a general service academic vocabulary list created by Averil Coxhead (2000) from a corpus of 3.5 million words. The AWL is still held in high regard and used widely today, in spite of some critics (Hyland & Tse 2007; Gardner & Davies 2014; Durrant 2014) who have noted its flaws. The extent to which item knowledge in the textbook is explicitly exploited was examined. In appendix 2 it can be seen that the selected vocabulary items are not solely ‘single words.’ Items such as – ‘in charge of’, ‘were made of’, ‘in contrast’ and ‘get rid of’

were included, meaning items made up of more than one word featured as selected vocabulary as well as compound words too.

As Schmitt (2008, p.339; 2010, p.27) emphasises ‘engagement is a crucial factor in vocabulary acquisition.’ My analysis aims to reveal the level of engagement within activities of these lexical items. I use ‘engagement’ to mean learners being asked to do something actively, requiring a level of concentration and focus in the attempt to develop knowledge vocabulary items. This means that if these items appeared in parts of the textbook but have no explicit attention drawn to them, then this was not considered engagement. Craik and Lockhart (1972 cited in Schmitt 2008, p.338) stated that the more attention given to an item the more chance it would have of being remembered.

### **3.2: Which Paradigm?**

The manner in which I analysed the textbook to obtain results was largely quantitative. I say ‘largely’ as it is important to view the paradigms of ‘quantitative’ and ‘qualitative’ research as on a continuum rather than binary states (Duff 2006 cited in Dörnyei 2007, p.20). Quantitative data is centred on the use of numbers (Dörnyei, 2007) and is intended to represent an ‘objective reality.’ Nowadays more research is being conducted using a ‘mixed-methodology’; this can be very valuable and produce more reliable results under the right circumstances. However, in the case of this study, in order to achieve results that could be understood objectively a more quantitative approach was preferable to accurately show the extent to which each knowledge aspect was represented overall in activities.

### **3.3: Validity and Reliability**

In order to answer my research questions, I needed to ensure I could produce valid and reliable results so that I could draw conclusions about the textbook. It is important for researchers and readers of research to determine how legitimate the results of research are. Validity and reliability come hand in hand but there also exists a tension in attempts to satisfy both of them (Hughes, 2003). If my research is ‘valid’ then my framework for analysis should answer my research questions, and the framework used needed to be ‘consistent in capturing the focus of investigation’ (Phakiti 2010, p.42). If my research was reliable and thus consistent then the results can be depended upon. I think my framework worked for this analysis and did what the research set out to do in a consistent manner.

### **3.4: Method of Data Analysis**

Lesson ‘A’ and ‘B’ of each unit were examined, mainly examining the ‘Building vocabulary’ and ‘Using vocabulary’ sections as these are the areas where items would be explicitly focused on. In each lesson of each unit there is a number of vocabulary activities - asking learners to do different things, which although were often related were counted as separate activities (see appendix 1). Additionally, pages in which selected vocabulary items reappeared explicitly were also taken into account but separate from the main vocabulary analysis. These were sections of the textbook under other sections such as ‘developing listening skills’ or ‘speaking’, but the selected vocabulary was explicitly addressed again in some way.

### 3.5: The Framework

Arriving at a framework for analysis was not straightforward; it consisted of a succession of adjustments until a suitable framework was finally reached. As this piece of research is concerned with aspects of lexical knowledge, Nation's (2001) comprehensive table (see section 2.4.2) of nine aspects of word knowledge was hugely useful for my study. However, I wondered how it could be used to fit my analysis. When I read through Brown's (2011) textbook analysis and examined his framework (section 2.8.3) used, I felt this was similar to what I could use for my framework. It just required some changes to better tailor it to answer my research questions.

Below is the framework used to analyse Pathways 1;

**Table Y**

Aspect of lexical knowledge	Receptive (R)	Productive (P)
Spoken form	An activity that requires students to focus on the sound of items.	An activity that requires students to produce the spoken form in some way.
Written form	An activity that focuses students' attention on what the item looks like.	An activity that requires students to write items.
Word parts	An activity that focuses students' attention on parts of items.	An activity that requires students to manipulate word parts in some way (e.g. parts of speech, prefixes, suffixes)
Form and Meaning	An activity that focuses students' attention on the meaning signalled by items.	An activity that requires students to produce the correct word forms to express meaning.
Concept and referents	An activity that focuses student's attention on the extent of an items meaning.	An activity that requires students to produce concepts with appropriate referents.
Associations	An activity that focuses students' attention on item associations.	An activity that requires students to produce synonyms, opposites or categorise items.
Grammatical functions	An activity that makes students aware of items patterns of use.	An activity that requires students to manipulate items in some way with respect to a sentence, e.g. by adding it to the sentence in the correct position. Activities relating to explicit patterns of use.
Collocations	An activity that focuses students' attention on the company items keep.	An activity that requires students to produce appropriate collocations for items.
Constraints on use	An activity that explains the constraints of items.	An activity that requires students to produce items from different registers in some way.

Recycling	An activity that explicitly repeats an item's focus through another aspect of lexical knowledge.
Context	An activity that presents items in meaningful ways.

As can be seen, this framework deals with each aspect of word knowledge, distinguishes between receptive and productive knowledge and accounts for context and recycling of items in activities. Therefore this framework was judged to be adequate for answering the research questions proposed. By totalling an amount of each aspect I could objectively talk about the extent that the book explicitly focuses on aspects of word knowledge. By differentiating between 'receptive' and 'productive' I could decide which received more attention. By checking the number of activities that contain meaningful contexts and counting the number of times items were focused on again through a different aspect, I could make conclusions about the use of both.

### 3.6: Clarity of Framework

I took Brown's definition of 'vocabulary activity' which; as mentioned when recounting his study, is 'anything that the learner is asked to do and focuses on form, meaning or use of items' (Brown 2011, p86-7). I looked at the activity instructions to decide the aspect(s) being given attention. If attention was drawn to an item explicitly and receptively or productively then it was accounted for. Each activity was analysed, the aspects being exemplified was determined and a count for each was taken. Supporting the framework above (table Y); it can be seen in appendix 3 and 4 in further detail how explicitness of aspects was decided upon. Also to reiterate section 2.7, if an activity was demonstrating the use of a lexical item in a contextualised way and not just matching a definition or as stand-alone sentences then this counted as 'meaningful', and if a vocabulary activity explicitly highlighted an item through another aspect after it has been introduced, this was considered 'recycling.'

In an attempt to maintain consistency, the framework was constantly referred to throughout the analysis, although determining the aspects being explicitly focused on was not initially an easy process but took time to refine. By maintaining a consistent analysis, I could be confident in my decision about which aspects were being exemplified in activities pertaining to vocabulary items. I feel that appendix 3 serves a purpose to support and clarify my framework further, and appendix 4 is necessary to help recognise how aspects were explicit in activities.

## ANALYSIS AND RESULTS

### 4.1: Overall Results

#### *Total aspect count table*

\*The numbers in (brackets) represent the count for selected items given explicit attention out-with the vocabulary sections of units.

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

Aspect of lexical knowledge	Receptive	Productive
Spoken form	35 (5)	15 (10)
Written form	9 (4)	36 (4)
Word parts	22	3
Form and Meaning	63 (2)	59 (2)
Concept and referents	0	11 (3)
Associations	0 (1)	0 (1)
Grammatical functions	0 (7)	0 (7)
Collocations	0	1
Constraints on use	0	0
Recycling	57 (9)	
Context	54 (8)	

Note: In the vocabulary sections there are 103 activities in total.

## 4.2: Unit by Unit

### *Unit 1 Results*

#### *Lesson A*

#### Building vocabulary

Activity description	<u>Aspects focused on explicitly</u>
<b>A:</b> In this activity learners must read and listen to the words and match the items with their definitions. The parts of speech are also provided next to each definition.	Form and meaning R, form and meaning P, Spoken form R, word parts R, written form R.
<b>B:</b> In this activity there is a story which provides a meaningful context and learners must read and listen to 'notice' the	Context, spoken form R, written form R.

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

highlighted items.	
<b>C:</b> Learners must write items to match with their definitions. The parts of speech are provided next to each definition.	Form and meaning R, form and meaning P, written form P, word parts R.
<b>D:</b> Learners must fill out a word part table comparing different forms of items.	Recycling, word parts R, word parts P, written form P.

### Using vocabulary

<b>A:</b> Learners must fill in blanks with items from a box then practice the conversation.	Recycling, context, form and meaning R, form and meaning P, written form P, spoken form P.
<b>B:</b> Learners must fill in blanks in context with items from a box and then they listen to check.	Context, form and meaning R, form and meaning P, spoken form R, written form P.

## ***Lesson B***

### Building vocabulary

<b>A:</b> In this activity there is a clear context - three interviews. Learners must read and listen to 'notice' the highlighted items.	Context, spoken form R, written form R.
<b>B:</b> In this activity learners must check items in a box that they 'already know' and/or understand from the previous context. Parts of speech are provided.  It tells learners to use a dictionary to help them, but it cannot be known if or how each learner would do this.	Recycling, word parts R.

### Using vocabulary

<b>A:</b> Learners must fill in the blanks of stand-alone sentences.	Recycling, form and meaning R, form and meaning P, written form P.
----------------------------------------------------------------------	--------------------------------------------------------------------

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

<b>B:</b> Learners must fill in blanks with items from a box.	Context, form and meaning R, form and meaning P, written form P.
<b>C:</b> In this role-play activity, learners must produce the spoken form of the item 'believe' in an interview role-play.	Recycling, context, spoken form P.
<b>D:</b> Learners must produce the spoken form of items and produce correct referents for concepts.	Recycling, context, spoken form P, concepts and referents P.

## ***Unit 2 Results***

### ***Lesson A***

#### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they 'already know.' The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must read and listen to 'notice' the highlighted items in a story.	Recycling, context, spoken form R, written form R.
<b>C:</b> Learners must match items with their definition. The parts of speech are provided next to each definition.	Recycling, form and meaning R, form and meaning P, written form P, word parts R.

#### Using vocabulary

<b>A:</b> Learners must fill in blanks with items in short dialogues.	Context, form and meaning R, form and meaning P, written form P.
<b>B:</b> Learners must discuss questions using their own ideas. Additionally learners must use different forms of the item 'laughter.'	Recycling, context, word parts R, word parts P, spoken form P, concepts and referents P.

### ***Lesson B***

#### Building vocabulary

<b>A:</b> Learners must read and listen to 'notice' highlighted items in context.	Context, spoken form R, written form R.
-----------------------------------------------------------------------------------	-----------------------------------------



Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

<b>B:</b> Learners must match previously encountered items with given definitions. The parts of speech are provided.	Recycling, form and meaning R, form and meaning P, word parts R.
----------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------

### Using vocabulary

<b>A:</b> Learners must fill in the blanks of a story with a previously encountered item.	Recycling, context, form and meaning R, form and meaning P, written form P.
<b>B:</b> Learners are required to discuss questions using their own ideas.	Recycling, context, spoken form P, concepts and referents P.

## **Unit 3 Results**

### **Lesson A**

#### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they ‘already know.’ The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must match items with their definitions.	Recycling, form and meaning R, form and meaning P.
<b>C:</b> Learners must read and listen to ‘notice’ the highlighted items. After that they must write each highlighted item next to its definition.	Recycling, context, written form R, written form P, spoken form R, word parts R, form and meaning R, form and meaning P.

### Using vocabulary

<b>A:</b> Learners must fill in blanks with items of three conversations.	Context, written form P, form and meaning R, form and meaning P.
<b>B:</b> Learners must compare answers from A then practice the conversations.	Recycling, form and meaning R, spoken form P.
<b>C:</b> Learners must discuss questions using their own ideas.	Recycling, context, spoken form P, concepts and referents P.

### **Lesson B**

#### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they ‘already know.’ The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must look at a map and choose T (True) or F (False) for three statements.	Recycling, context, form and meaning R.
<b>C:</b> Learners must circle the correct words in a story then listen to check their answers.	Recycling, context, form and meaning R, form and meaning P, spoken form R.

#### Using vocabulary

<b>A:</b> Learners must fill in blanks of a story with the lessons items then listen to check their answers.	Recycling, context, form and meaning R, form and meaning P, spoken form R, written form P.
<b>B:</b> Learners must discuss questions using their own ideas.	Recycling, context, spoken form P, concepts and referents P.

### ***Unit 4 Results***

#### ***Lesson A***

#### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they ‘already know.’ The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must circle the correct words in a story.	Recycling, context, form and meaning R, form and meaning P.
<b>C:</b> Learners must listen to check their answers from ‘B.’	Spoken form R.

#### Using vocabulary

<b>A:</b> Learners must fill in blanks of stand-alone sentences with items.	Recycling, written form P, form and meaning R, form and meaning P.
<b>B:</b> Learners must ask and answer questions using items.	Recycling, context, spoken form P, concepts and referents P.

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

<b>C:</b> Learners must match the items with a description.	Form and meaning R, form and meaning P.
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### ***Lesson B***

#### Building vocabulary

<b>A:</b> Learners must read and listen to ‘notice’ the highlighted items in a story.	Context, spoken form R, written form R.
<b>B:</b> Learners must write items next to their definition. The parts of speech are provided next to the definitions.	Recycling, written form P, form and meaning R, form and meaning P, word parts R.

#### Using vocabulary

<b>A:</b> Learners must fill in blanks of stand-alone sentences with their own ideas. The blanks are not highlighted items.	Recycling, form and meaning R, concepts and referents P.
<b>B:</b> Learners must fill in blanks of a story with vocabulary items.	Context, written form P, form and meaning R, form and meaning P.
<b>C:</b> Learners must discuss questions related to ‘B.’	Recycling, context, spoken form P.

### ***Unit 5 Results***

#### ***Lesson A***

#### Building vocabulary

<b>A:</b> Learners must read and listen to ‘notice’ items in sentences.	Context, spoken form R, written form R.
<b>B:</b> Learners must write items next to their definition. The parts of speech are given next to their definition.	Recycling, written form P, word parts R, form and meaning R, form and meaning P.

#### Using vocabulary

<b>A:</b> Learners must fill in blanks of a story	Context, form and meaning R, form and
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with items.	meaning P, written form P.
<b>B:</b> Learners must fill in the blanks of sentences with their own ideas. The blanks are not vocabulary items.	Recycling, collocations P, concepts and referents P.

### ***Lesson B***

#### Building vocabulary

Learners must read and listen to ‘notice’ the highlighted items in a story.	Context, spoken form R, written form R.
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#### Using vocabulary

<b>A:</b> Learners must fill in blanks of stand-alone sentences with items.	Recycling, context, form and meaning R, form and meaning P, written form P.
<b>B:</b> Learners must write vocabulary items into the correct word part box.	Recycling, word parts R, word parts P, written form P.
<b>C:</b> Learners must ask and answer questions using their own ideas.	Recycling, context, concepts and referents P, spoken form P.

### ***Unit 6 Results***

#### ***Lesson A (appendix 1)***

#### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they ‘already know.’ The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must fill in the blanks of stand-alone sentences with items.	Recycling, form and meaning R, form and meaning P, written form P.
<b>C:</b> Learners must fill in blanks of a story with items then listen to check their answers.	Context, form and meaning R, form and meaning P, written form P, spoken form R.

#### Using vocabulary

<b>A:</b> Learners must discuss questions using their own ideas using the items ‘buildings’ and ‘apartments.’	Recycling, context, concepts and referents P, spoken form P.
<b>B:</b> Learners must choose the correct word in a conversation.	Context, form and meaning R, form and meaning P.
<b>C:</b> Learners must practice the conversation from ‘B.’	Spoken form P.

### ***Lesson B (appendix 1)***

#### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they ‘already know.’ The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must write items next to their definitions.	Recycling, form and meaning R, form and meaning P, written form P.
<b>C:</b> Learners must have a discussion using vocabulary items in prompts.	Recycling, context, concepts and referents P, spoken form P.

#### Using vocabulary

Learners must fill in blanks in a story using items, then listen to check their answers.	Context, form and meaning R, form and meaning P, written form P, spoken form R.
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### ***Unit 7 Results***

#### ***Lesson A***

#### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they ‘already know.’ The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must read and listen to ‘notice’ items in a story.	Recycling, context, spoken form R, written form R.
<b>C:</b> Learners must explain about information in the story from ‘B.’	Recycling, context, spoken form P, form and meaning P.

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

### Using vocabulary

<b>A:</b> Learners must fill in the blanks of stand-alone sentences with items.	Recycling, form and meaning R, form and meaning P, written form P.
<b>B:</b> Learners must ask and answer questions using items.	Recycling, context, spoken form P, concepts and referents P.

### **Lesson B**

#### Building vocabulary

<b>A:</b> Learners must read and listen to ‘notice’ the highlighted items in a story.	Context, spoken form R, written form R.
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### Using vocabulary

<b>B:</b> Learners must write each item next to its definition. The parts of speech are provided next to each definition.	Recycling, form and meaning R, form and meaning P, written form P, word parts R.
<b>C:</b> Learners must choose the correct item from sentences.	Context, form and meaning R, form and meaning P.
<b>D:</b> Learners must ask and answer questions in a quiz.	Recycling, context, spoken form P.

### **Unit 8 Results**

#### **Lesson A**

#### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they ‘already know.’ The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must write each item next to its definition.	Recycling, form and meaning R, form and meaning P, written form P.
<b>C:</b> Learners must discuss questions using their own ideas.	Recycling, context, spoken form P, concepts and referents P.

### Using vocabulary

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

Learners must fill in blanks of a story with items then listen to check their answers.	Context, form and meaning R, form and meaning P, written form P, spoken form R.
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### **Lesson B**

#### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they ‘already know.’ The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must read to ‘notice’ the highlighted items. They must circle the correct word or phrase in brackets of stand-alone sentences, which are not vocabulary items.	Recycling, written form R, form and meaning R, form and meaning P.
<b>C:</b> Learners must listen to check their answers to ‘B.’	Form and meaning R.
<b>D:</b> Learners must discuss questions about pictures using the items ‘performing’ and ‘award.’	Recycling, context, spoken form P, concepts and referents P.

#### Using vocabulary

<b>A:</b> Learners must fill in blanks of three conversations with items from a box.	Recycling, context, written form P, form and meaning R, form and meaning P.
<b>B:</b> Learners must listen to check their answers to ‘A.’	Spoken form R.
<b>C:</b> Learners must practice the conversations from ‘A.’	Spoken form P.
<b>D:</b> Learners must circle the correct item in a story.	Context, form and meaning R, form and meaning P.

### **Unit 9 Results**

#### **Lesson A**

#### Building vocabulary

<b>A:</b> Learners must listen to items and check	Spoken form R, word parts R.
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the ones they ‘already know.’ The parts of speech are provided.	
<b>B:</b> Learners must fill in blanks of two stories with items from a box then listen to check their answers.	Recycling, context, form and meaning R, form and meaning P, written form P, spoken form R.

### Using vocabulary

<b>A:</b> Learners must discuss questions.	No explicit need to use any of the lessons vocabulary items.
<b>B:</b> Learners must fill in blanks of a story with items from a box.	Context, form and meaning R, form and meaning P, written form P, spoken form R.
<b>C:</b> Learners must discuss questions using their own ideas.	Recycling, context, spoken form R, concepts and referents P.

## ***Lesson B***

### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they ‘already know.’ The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must circle the correct item in three conversations then listen to check their answers.	Recycling, context, form and meaning R, form and meaning P, spoken form R.
<b>C:</b> Learners must practice the conversations from ‘B.’	Recycling, spoken form P.

### Using vocabulary

<b>A:</b> Learners must fill in blanks in a story with items.	Recycling, form and meaning R, form and meaning P, written form P.
<b>B:</b> Learners must discuss questions using the items ‘enjoy’ and ‘save.’	Recycling, spoken form P, concepts and referents P.
<b>C:</b> Learners must talk about facts.	No explicit need to use any of the lessons vocabulary items.



Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

### ***Unit 10 Results***

#### ***Lesson A***

##### Building vocabulary

<b>A:</b> Learners must listen to items and check the ones they ‘already know.’ The parts of speech are provided.	Spoken form R, word parts R.
<b>B:</b> Learners must write each item next to its definition.	Recycling, form and meaning R, form and meaning P, written form P.
<b>C:</b> Learners must circle the correct item in stand-alone sentences then listen to check their answers.	Form and meaning R, form and meaning P.

##### Using vocabulary

<b>A:</b> Learners must read three stories containing items and discuss questions using items.	Recycling, context, spoken form P, concepts and referents P, form and meaning R.
<b>B:</b> Learners must fill in blanks of a story with items from a box.	Context, form and meaning R, form and meaning P, written form P.

#### ***Lesson B***

##### Building vocabulary

<b>A:</b> Learners must read and listen to ‘notice’ highlighted items in a story.	Context, spoken form R, written form R.
<b>B:</b> Learners must write items next to their definitions. The parts of speech are provided next to each definition.	Recycling, written form P, word parts R, form and meaning R, form and meaning P.

##### Using vocabulary

<b>A:</b> Learners must enter other forms of words	Recycling, word parts R, word parts P,
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in a word part table.	written form P.
<b>B:</b> Learners must fill in blanks of stand-alone sentences with items from a box.	Form and meaning R, form and meaning P, written form P.
<b>C:</b> Learners must discuss questions using their own ideas.	Recycling, context, spoken form P, concepts and referents P.

***Vocabulary items in other sections***

<b>Unit: activity (section)</b>	<b>Item(s) exemplified</b>	<b>Aspect(s) exemplified</b>
1A: Grammar A (Exploring spoken English)	‘Help.’	Recycling, context, Form and meaning R, form and meaning P, grammatical functions R, grammatical functions P, written form P.
1A: Grammar B (Exploring spoken English)	‘Help.’	Context, form and meaning R, form and meaning P, grammatical functions R, grammatical functions P, written form P,
1A: Grammar C (Exploring spoken English)	‘Explore’, ‘communication’, ‘travel’, ‘help’, ‘skills.’	Recycling, context, spoken form P, concepts and referents P.
1A: Doing an interview A (Speaking)	‘Creative’, ‘travel’, ‘explore’, ‘dangerous’, ‘communication’, ‘help.’	Context, spoken form P, concepts and referents P.
1B: Pronunciation A (Developing listening skills)	‘Travel’, ‘creative’, ‘skills.’	Spoken form R, written form R.
1B: Pronunciation B (Developing listening skills)	‘Adventure’, ‘amazing.’	Spoken form R, written form R, written form P.
1B: Language function C (Exploring spoken English)	‘Dangerous’, ‘physical.’	Recycling, context, spoken form P, concepts and referents P.
3A: Pronunciation (Developing listening skills)	‘Explored’	Spoken form R, written form R.
4A: Grammar A (Exploring spoken English)	‘Flooding’, ‘drought.’	Recycling, written form P, associations R, associations

		P.
8B: Pronunciation A (Developing listening skills)	‘Lyrics’, ‘song’, ‘album.’	Spoken form R, written form R.
8B: Pronunciation B (Developing listening skills)	Lyrics’, ‘song’, ‘album.’	Spoken form P.
8B: Pronunciation C (Developing listening skills)	‘Award’, ‘popular’, ‘afford.’	Context, spoken form R, written form R.
8B: Pronunciation D (Developing listening skills)	‘Award’, ‘popular’, ‘afford.’	Spoken form P.
9A: Grammar A (Exploring spoken English)	‘Dangerous’, ‘delicious.’	Recycling, spoken form P, grammatical functions R, grammatical functions P.
9A: Comparing C (Speaking)	‘Amazing’, ‘unusual.’	Context, spoken form P, grammatical functions R, grammatical functions P.
9B: Pronunciation A (Developing listening skills)	‘Imagine’, ‘amazing.’	Recycling, spoken form R, written form R.
9B: Grammar A (Exploring spoken English)	‘Delicious.’	Recycling, spoken form P, grammatical functions R, grammatical functions P.
9B: Grammar B (Exploring spoken English)	‘Numerous.’	Recycling, context, spoken form P, grammatical functions R, grammatical functions P.
10A: Grammar (Exploring spoken English)	‘Travel.’	Recycling, spoken form P, grammatical functions R, grammatical functions P.

### 4.3: What the results show

From the ‘total aspect count table’ (section 4.1) the results for the whole textbook show the number of times each aspect was noted as receiving explicit attention in activities. All activities analysed were found to explicitly focus on more than one aspect.

As is evident from the table (section 4.1) ‘form and meaning’ dominate attention given to selected vocabulary items by a sizeable amount. Following ‘form and meaning’, ‘spoken form’, ‘written form’ and ‘word parts’ can be found. Each with a noticeable figure, both receptively and productively. However after these aspects the count for other aspects is

exceedingly low, with ‘constraints on use’ not accounted for at all. The most noticeable result pertaining to ‘receptive’ and ‘productive’ knowledge was the differences in ‘spoken’ and ‘written’ forms. The differences which can be seen were that ‘receptive spoken form’ was higher than its productive counterpart and this was opposite for ‘written form.’ Among a total of 103 activities found in the vocabulary sections of the textbook over half of them (54) had a meaningful context, and in regards to ‘recycling’ 57 times were counted in which items were explicitly focused on again but through a different aspect. However the number that each specific item was recycled was not calculated as the items for each unit almost always appeared together in activities. It can also be noted from the table (section 4.1) that the aspects ‘grammatical functions’ and ‘associations’ were unaccounted for until areas of the textbook separate from the vocabulary sections were analysed. However, overall the explicit focus of selected items is only really explicit in the vocabulary sections of the units. Items appear but very rarely explicitly in other sections.

## DISCUSSION

### 5.1: Interpretation

Overall from the results (section 4.1) gathered from the framework used (section 3.5), it is clear that there is not a fair representation across the nine aspects of lexical knowledge. Therefore it is concluded that this textbook does not adequately acknowledge the importance of drawing explicit attention to all that is involved in mastering a lexical item.

The results show similarities to Brown’s (2011) study in terms of ‘form and meaning’ and ‘spoken form’ taking a sizeable portion of explicit representation. Unit by unit the similarity in activities in vocabulary sections maintains a fairly consistent pattern for the amount and manner in which aspects are exemplified with slight variations in activity type. The format always begins with attempts to direct learners to make form-meaning connections, usually utilising parts of speech and definitions. Form and meaning R and P tended to appear together in activities by learners reading the activity a form and meaning connection could first be worked out and then produced after the connection had been decided. The extent to which ‘form and meaning’ are heavily favoured in vocabulary sections indicates that although making a form-meaning link is very important the amount that it dominates in the results perpetuates the idea that learning vocabulary equates to learning meanings. This way of thinking could be misguided in the sense that learners may be under the impression from the textbook that they ‘know’ and have ‘learnt’ particular items when in fact they may only have very partial knowledge of them. A view of vocabulary learning based mostly on making form-meaning connections neglects other aspects of lexical knowledge.

The implications for the prevalence of ‘spoken form R’ may be that it is seen as necessary to draw attention to the form-sound connection, as sometimes in English the pronunciation of an item is not easily pronounceable from its form. ‘Written form’ is represented much more substantially in this study, possibly due to having broad criteria as to what a focus on written form entailed. Anytime items were to be written this was counted as ‘written form P’, thus activities in which there was focus on other aspects such as ‘word part tables’ or ‘fill in the blank’ also required producing the written form of items. Activities had learners ‘notice’ items by reading but the written form R or P never involved the spelling of items. It may be thought that learners would automatize the items by seeing, hearing and writing them.

'Word parts' (22 R, 3 P) were given quite consistent attention however as seen in the framework and appendix 3 'part of speech' was included under 'word parts' criteria and this was what brought the 'word part' count up. Whenever the book gave the parts of speech for items this was counted under 'word parts R.' There were no activities where 'prefixes' or 'suffixes' were made explicit however and it is difficult to explain why.

Previous studies have shown 'grammatical functions' to receive explicit attention, but in this study only in non-vocabulary sections was this identified, possibly due to vocabulary as being understood as separate from grammar and thus items were exemplified within activities where grammar patterns were the focus.

There were some activities where learners answered questions and in doing so needed to produce referents for the vocabulary item concepts. The extent of an item's meaning was never focused on receptively however, leaving learners to judge the appropriateness of the referents for concepts they were producing. If their receptive knowledge had not reached a certain level it may not be practical to force production.

As for the remaining three aspects ('associations', 'collocations' and 'constraints on use') only one activity was identified in 20 vocabulary lesson sections explicitly involving production of 'collocations.' The reasons for the extremely low representation of collocation and the zero scores for 'associations' and 'constraints' on use can be explained in terms of researchers such as Nation (2001) who stated these aspects are likely better left to be picked up through exposure and Schmitt (2000) who says that explicit teaching and incidental learning can complement each other well. Laufer however (2005, cited in Schmitt 2008, p.341) cautions that 'learners who understand the overall message often do not pay attention to the precise meanings of individual words.'

Throughout Pathways 1 selected vocabulary items are introduced, recycled within vocabulary activities and also reappear within other activities. Some vocabulary items reappear within other units not only in the unit introduced. Interestingly some items seem to appear in units prior to their 'official' introduction so to speak. For example, '*free time*' appears on page 20 of unit 1 in the question '*what do you like to do in your free time?*' but '*free time*' is not introduced until unit 2B. Again '*enjoy*', '*discover*', '*amazing*', '*building*' and '*song*' also appear incidentally prior to their introduced unit. Aside from the fact that the constituent parts of the item 'free time' make it fairly transparent, the writers of this textbook likely assume prior knowledge of their vocabulary items. Schmitt says that 'explicit teaching can supply valuable first introductions' (2000, p.137) but for the items that appear before they are introduced unless learners have some prior knowledge of them they could have comprehension issues.

The total number of times items were recycled and the total number of times a meaningful context was counted within vocabulary sections were 57 and 54 respectively. It is not easy to accurately relate the number of recycles to the literature because this did not include incidental recycling. Isolated items, matching items to definitions and stand-alone sentences prevented more meaningful contexts, implying that there is still room for improving the level of contextualisation activities reach, especially considering how important the literature views context.

## 5.2: Research Questions Revisited

With respect to the first research question (section 2.9) it would appear from the dominance of certain aspects namely ‘form and meaning’ that the activities in Pathway 1 do not explicitly address all aspects of word knowledge to an adequate extent. The implications of this may be that learners might only understand the tip of the lexical item iceberg which they may mistake for the whole thing and in doing so deduce they have learnt certain lexical items. As Brown (2011) points out all aspects of lexical knowledge can benefit from intentional learning and this can make learners more aware as they build their vocabulary. In the country of the context I know this global textbook to be used (South Korea) learners do not have opportunities outside the classroom to be exposed to and thus pick-up English incidentally. This also applies to many other learners in countries around the world who could likely gain from an explicit and deeper understanding of lexical items. Schmitt (2000, p.121) mentions ‘lack of exposure’ as a very common problem for second language learners.

By looking at the results (section 4.1) for ‘receptive’ as opposed to ‘productive’ explicit attention, it is concluded that ‘receptive’ receives more attention but not by a significant amount by any means. Having examined each unit, lexical item meanings are receptively exemplified and contexts are used to further demonstrate this. Laufer and Paribakht (1998) have shown that learners usually have more receptive than productive knowledge; learners need chances to see how items can be used.

Pathways 1 is context rich in my opinion and therefore would conclude it to effectively exemplify the selected vocabulary items. The items for each unit relate to the topic of the unit and are contextualised through topic related content. In the vocabulary sections there is usually a story for receptive understanding of meaning in context followed by fill in the blank activities within some kind of context and ending with questions to use items in context (see appendix 1). This aligns with extensive literature (section 2.7.1) promoting ‘context’ as essential to vocabulary learning. However, with a total of 54 activities counted out of the textbooks 103 activities in vocabulary sections, a richer context could still be achieved.

In respect to question four (section 2.9), it can be understood that Pathways 1 fits in with much literature which argues for vocabulary learning to consist of a mixture of ‘intentional’ and ‘incidental.’ Therefore, when concentrating on the appearance of the selected vocabulary items it can be said items are recycled as they appear in other parts of the units they are introduced in and sometimes elsewhere in the book. However, their appearance out-with vocabulary sections is largely non-explicit. In vocabulary sections the items do appear in each activity but sometimes fail to focus on other aspects of lexical knowledge not already addressed. This means in connection with question one, items are recycled (57 count) but not to the extent that all nine-word knowledge aspects receive adequate attention.

I would say vocabulary items could be introduced through one aspect such as form-meaning in a context, and then further activities could direct learners to other aspects to build on knowledge. This would entail less vocabulary items and more explicit repetition through a wider range of word knowledge aspects. For recycling explicitly, if an item is introduced through ‘form and meaning’ for example then only met incidentally from then on it may be difficult for learners to cement their knowledge of this item unless further explicit attention is paid to it. I think when dealing with a level such as A2 and items which are more academic in nature, more of a focus on exemplifying such items in a textbook would aid overall

understanding when they reappear incidentally. ‘Engagement-rich explicit exposure’ appears to be the most favourable to learning however the drawback is that this kind of attention cannot be constant within material, clearly embedding lexical items incidentally can aid enhancing knowledge of words which have already been met’ (Schmitt 2008, p.348), but it is very valuable for learners to realise the nine aspects of word knowledge. There should of course be an onus on learners to become autonomous in their learning in every aspect, this is why I also support the view that learners need to be taught strategies (Schmitt, 2000) to help them deal with vocabulary on their own, therefore learners’ language ability would increase if proper word knowledge was acquired.

## **CONCLUSION**

### **6.1: Summary of Research**

This study began by giving a platform to the area of lexis, shining a light on the lexical patterning of language. It looked in particular at ‘lexical items’ and aspects of word knowledge in a global textbook (Pathways 1) used in a South Korean high school. The study found the textbook to give the vast majority of explicit attention in activities to ‘form and meaning.’ The textbook does contain explicit contexts and recycling of items predominantly in the vocabulary sections but it does not explicitly exemplify them in satisfactory depth to enable awareness of all aspects of word (lexical item) knowledge. Pathways 1 does provide explicitness to vocabulary items and aligns with research that advocates for the intentional plus incidental addressing of vocabulary, however it is concluded that the textbook fails to draw enough attention to all nine aspects of word knowledge required to master lexical items. Even though complete mastery of any such item is not essential, a conscious awareness of aspects of word knowledge by textbooks could help teachers deal with this area and also discourage many learners from concluding that they ‘knew’ an item after making its prototypical form-meaning connection.

### **6.2: Limitations**

Previous research into vocabulary in textbooks has examined multiple books, whereas this study only examined one book. For this reason it has to be stressed that the implications given in this study should be seen as narrow in scope. This study can only make comments in reference to one particular textbook and therefore is unable to say anything about other textbooks. It was felt due to time available and intent to produce quality over quantity that one textbook would suffice rather than attempting to compare a range of textbooks. The textbook was felt to be a variable in which objective statements could be made, but clearly nothing can be concluded about teachers or students in any such contexts.

### **6.3: Directions for Future Research**

It is hoped that more studies will examine textbooks with a similar intent and manner as this one to reveal and better understand the way in which lexical items are made a focus and dealt with by material writers. In the future, hopefully, textbooks used in similar schools or similar contexts can be compared. Also, if a book was found to be a healthy representation of lexical knowledge then a longitudinal study into teacher’s use of such a book and students’ development may be beneficial for this area of research.

In literature in this area it has been concluded that increased attention, intention, interaction and engagement with lexical items facilitate vocabulary learning (Schmitt, 2008). It is important for each 'learning partner' to be aware of the role lexis plays in language. If textbooks can adequately provide repeated opportunities to engage with lexical items, with each opportunity directing learning to a different aspect of knowledge, then this may lead to a more comprehensive appreciation of what a 'lexical item' is and the true depth of knowledge available that can be acquired, which could enhance language skills overall.

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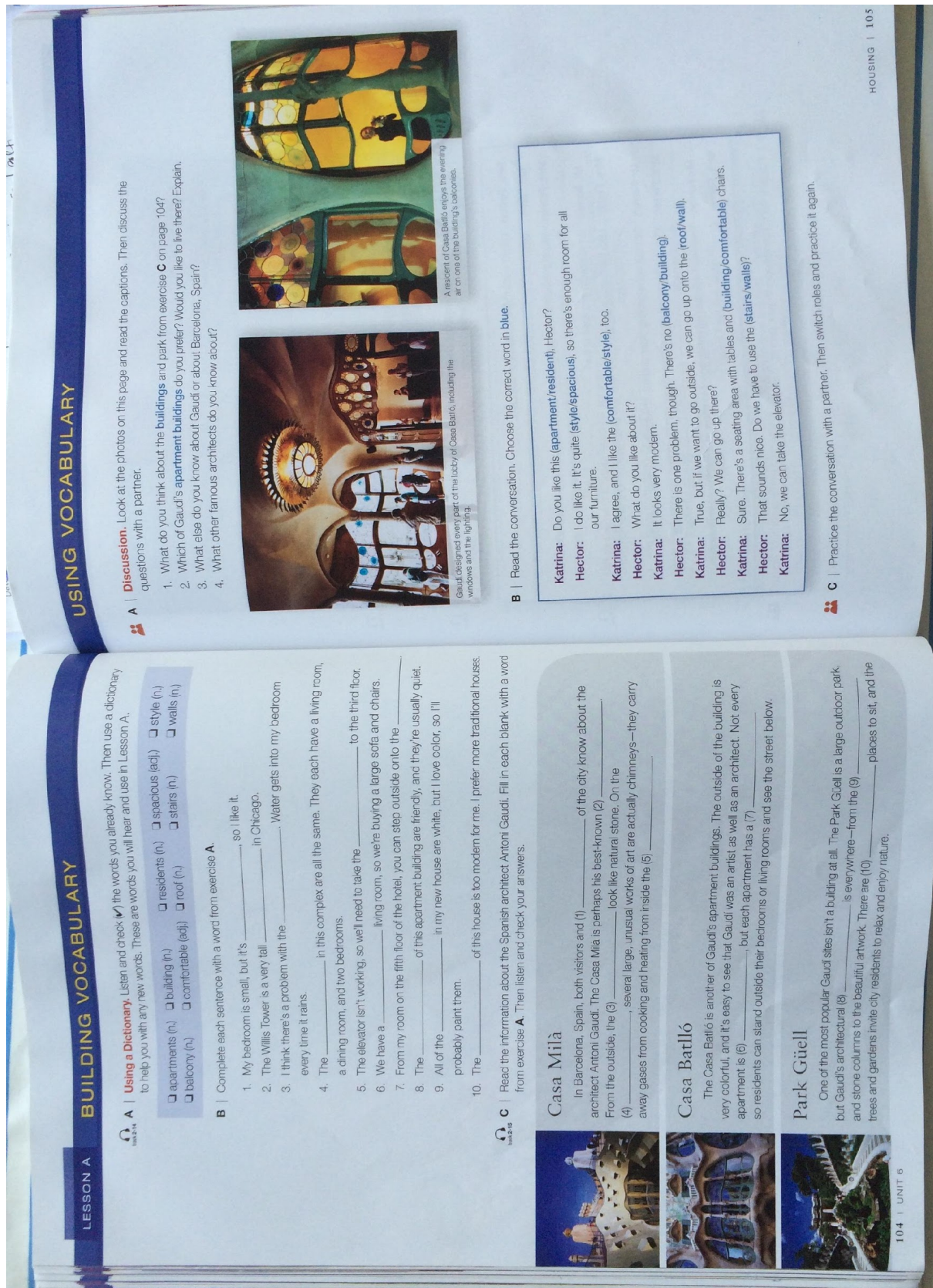
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Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

*Appendix 1: Unit 6 (Sample unit)*



**BUILDING VOCABULARY**

**A** | **Using a Dictionary.** Listen and check  the words you already know. Then use a dictionary to help you with any new words. These are words you will hear and use in Lesson A.

- apartments (n.)     building (n.)     residents (n.)     spacious (adj.)     style (n.)
- balcony (n.)     comfortable (adj.)     roof (n.)     stairs (n.)     walls (n.)

**B** | Complete each sentence with a word from exercise A.

1. My bedroom is small, but it's \_\_\_\_\_, so I like it.
2. The Willis Tower is a very tall \_\_\_\_\_ in Chicago.
3. I think there's a problem with the \_\_\_\_\_. Water gets into my bedroom every time it rains.
4. The \_\_\_\_\_ in this complex are all the same. They each have a living room, a dining room, and two bedrooms.
5. The elevator isn't working, so we'll need to take the \_\_\_\_\_ to the third floor.
6. We have a \_\_\_\_\_ living room, so we're buying a large sofa and chairs.
7. From my room on the fifth floor of the hotel, you can step outside onto the \_\_\_\_\_.
8. The \_\_\_\_\_ of this apartment building are friendly, and they're usually quiet.
9. All of the \_\_\_\_\_ in my new house are white, but I love color, so I'll probably paint them.
10. The \_\_\_\_\_ of this house is too modern for me. I prefer more traditional houses.

**C** | Read the information about the Spanish architect Antoni Gaudí. Fill in each blank with a word from exercise A. Then listen and check your answers.



**Casa Milà**

In Barcelona, Spain, both visitors and (1) \_\_\_\_\_ of the city know about the architect Antoni Gaudí. The Casa Milà is perhaps his best-known (2) \_\_\_\_\_. From the outside, the (3) \_\_\_\_\_ look like natural stone. On the (4) \_\_\_\_\_ several large, unusual works of art are actually chimneys—they carry away gases from cooking and heating from inside the (5) \_\_\_\_\_.



**Casa Batlló**

The Casa Batlló is another of Gaudí's apartment buildings. The outside of the building is very colorful, and it's easy to see that Gaudí was an artist as well as an architect. Not every apartment is (6) \_\_\_\_\_, but each apartment has a (7) \_\_\_\_\_. So residents can stand outside their bedrooms or living rooms and see the street below.



**Park Güell**

One of the most popular Gaudí sites isn't a building at all. The Park Güell is a large outdoor park, but Gaudí's architectural (8) \_\_\_\_\_ is everywhere—from the (9) \_\_\_\_\_ and stone columns to the beautiful artwork. There are (10) \_\_\_\_\_ places to sit, and the trees and gardens invite city residents to relax and enjoy nature.

**USING VOCABULARY**

**A** | **Discussion.** Look at the photos on this page and read the captions. Then discuss the questions with a partner.

1. What do you think about the buildings and park from exercise C on page 104?
2. Which of Gaudí's apartment buildings do you prefer? Would you like to live there? Explain.
3. What else do you know about Gaudí or about Barcelona, Spain?
4. What other famous architects do you know about?



Gaudí designed every part of this lobby of Casa Batlló, including the windows and the lighting.



A resident of Casa Batlló enjoys the evening air on one of the building's balconies.

**B** | Read the conversation. Choose the correct word in blue.

**Katrina:** Do you like this (apartment/resident), Hector?

**Hector:** I do like it. It's quite (style/spacious), so there's enough room for all our furniture.

**Katrina:** I agree, and I like the (comfortable/style), too.

**Hector:** What do you like about it?

**Katrina:** It looks very modern.

**Hector:** There is one problem, though. There's no (balcony/building).

**Katrina:** True, but if we want to go outside, we can go up onto the (roof/wall).

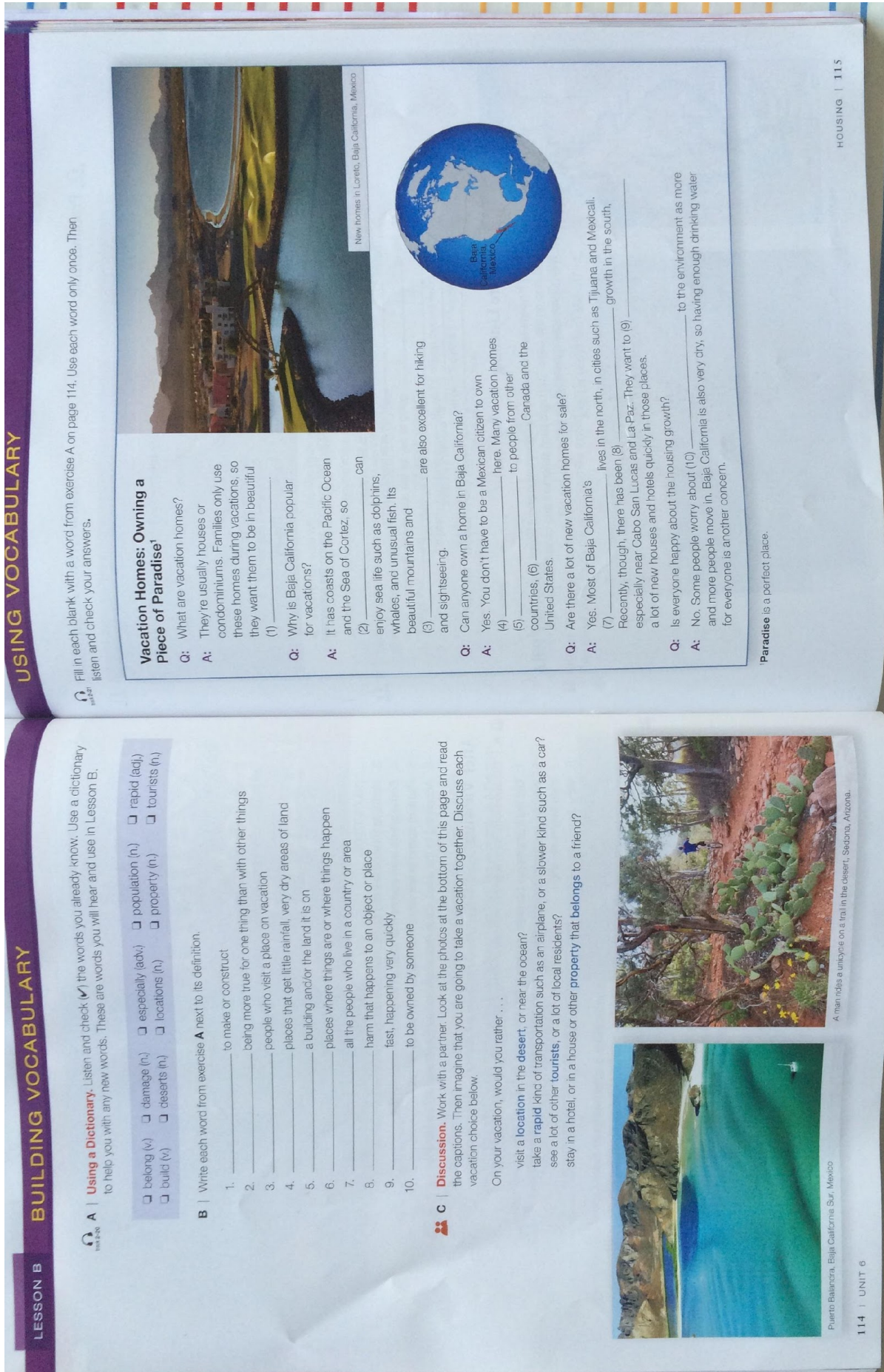
**Hector:** Really? We can go up there?

**Katrina:** Sure. There's a seating area with tables and (building/comfortable) chairs.

**Hector:** That sounds nice. Do we have to use the (stairs/walls)?

**Katrina:** No, we can take the elevator.

**C** | Practice the conversation with a partner. Then switch roles and practice it again.





**Appendix 2: Pathways 1 vocabulary item list**

Unit	Selected vocabulary items
1	<p>Lesson A: Travel (v), opportunity (n), experience (n), skills (n), dangerous (adj), <i>creative</i> (adj), explore (v), adventure (n), communicate (v), help (v).</p> <p>Lesson B: Organised (adj), in charge of (phrase), effect (n), <i>physical</i> (adj), although (con), graduate (v), search (v), presentation (n), managers (n), believe (v).</p>
2	<p>Lesson A: Funny (adj), joy (n), led (n), recorded (v), situations (n), joke (n), laughter (n), noise (n), researchers (n), <i>unique</i> (adj),</p> <p>Lesson B: Free time (n), <i>benefits</i> (n), enjoy (v), outdoors (adv), exercise (n), healthy (adj), common (adj), together (adv), <i>relax</i> (v), drawback (n).</p>
3	<p>Lesson A: Dishes (n), find (v), looked like (v), objects (n), ruled (v), <i>exhibit</i> (n), <i>image</i> (n), nearby (adj), recently (adv), tools (n).</p> <p>Lesson B: Were made of (v), everyday (adj), <i>route</i> (n), ship (n), traded (v), carry (v), goods (n), sailed (v), silk (n), valuable (adj).</p>
4	<p>Lesson A: Amount (n), drought (n), forecast (n), <i>predict</i> (v), storm (n), destroy (v), flooding (n), measure (v), rainfall (n), temperature (n).</p> <p>Lesson B: Patterns (n), average (adj), heat (n), grow (v), melting (v), instead of (prep), <i>somewhat</i> (adv), exist (v), rise (v), coast (n).</p>
5	<p>Lesson A: Allow (v), only (adj), nutritious (adj), imagine (v), local (adj), raw (adj), taste (n), unusual (adj), touch (v), delicious (adj).</p> <p>Lesson B: Liquid (n), order (v), quickly (adv), popular (adj), meet (v), treats (n), neighbourhood (n), numerous (adj), serve (v), beverage (n).</p>
6	<p>Lesson A: Apartments (n), buildings (n), residents (n), spacious (adj), <i>style</i> (n), balcony (n), comfortable (adj), roof (n), stairs (n), walls (n).</p> <p>Lesson B: Belong (v), damage (n), especially (adv), population (n), rapid (adj), build (v), deserts (n), <i>locations</i> (n), property (n), tourists (n).</p>
7	<p>Lesson A: Ago (adv), appears (v), become (v), gas (n), <i>in contrast</i> (phrase), amazing (adj), atmosphere (n), even (adv), gravity (n), lasted (v).</p> <p>Lesson B: Observe (v), invented (v), reflect (v),</p>

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

	necessary (adj), discovered (v), among (prep), size (n), completely (adv), reach (v), view (v).
8	<b>Lesson A:</b> Conscious of (phrase), copies (n), huge (adj), repeat (v), solid (adj), <i>constantly</i> (adv), forever (adv), public (adj), sculptures (n), <i>temporary</i> (adj). <b>Lesson B:</b> Afford (v), appeal (v), <i>interpret</i> (v), lyrics (n), simple (adj), album (n), award (n), lively (adj), perform (v), song (n).
9	<b>Lesson A:</b> Ahead (adv), hunt (v), relationship (n), responsibility (n), value (v), depend (v), raise (v), respect (n), share (v), within (prep). <b>Lesson B:</b> Aggressive (adj), avoid (v), is worth (phrase), reserve (n), scenery (n), attack (v), <i>conflict</i> (n), limited (adj), save (v), wildlife (n).
10	<b>Lesson A:</b> <i>Access</i> (v), connect (v), <i>device</i> (n), message (n), speed (n), basic (adj), contact (v), <i>involved</i> (adj), represent (v), unfortunately (adv). <b>Lesson B:</b> Realised (v), collision (n), probable (adj), metal (n), garbage (n), <i>response</i> (n), reduce (v), sensible (adj), prevent (v), get rid of (phrase).

**Note:** Items in *italics* are from the AWL (Academic Word List) by Coxhead (2000).

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

### *Appendix 3: Framework aspects*

<b>Aspect of lexical knowledge</b>	<b>Receptive</b>	<b>Productive</b>
	From the textbook not from a learner.	Produced by a learner.
Spoken form	If learners hear the spoken form of the item from the textbooks CD by being told to 'notice' it by 'listening.'  Spoken form of item, stress or intonation of items.	If learners must produce the item in speaking or writing.
Written form	If the instructions tell the learner to 'notice' items by 'reading.' If learners need to focus on the form of an item.	If learners must write the item.
Word parts	If learners' attention is focused on prefixes, suffixes, roots or parts of speech of an item.	If learners must produce a different form of an item.
Form and Meaning	If learners must 'read' or 'listen', and meaning.	If learners must produce form and meaning connections.
Concept and referents	If learners are explained what referents concepts relate to.	If learners must produce referents for concepts.
Associations	If learners are made aware of similarly associated items.	If learners must produce similarly associated items.
Grammatical functions	If learners are clearly directed to patterns items appear in.	If learners must produce patterns the item appears in. By altering the form of the item depending on the grammatical point.
Collocations	If learners are clearly directed to	If learners must produce common collocations

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

common collocations for items. for items.

Constraints on use	If learners are clearly directed to how an item should be used.	If learners must produce items in different registers.
Context	If items are made explicit in a context where meaning can be seen, this does not include isolated items or stand-alone sentences which are unrelated.	
Recycling	If items are explicitly focused on again by drawing attention to a different aspects of word knowledge.	

*Appendix 4: Examples of activities*

Aspect	Page	Lesson and activity	Activity description
Spoken form R	4	1A: Building vocabulary A	<b>Instructions:</b> ‘Read and listen to the words then match each word with its definition’ <b>Rationale:</b> Learners must listen to each word therefore they hear the spoken form of it.
Spoken form P	45	3A: Using vocabulary C	‘With your partner, discuss the questions below.’ Learners must discuss questions with the highlighted items ‘ruled’, ‘look like’, ‘object’ and ‘exhibits’ in them. E.g. ‘What kind of museum <b>exhibits</b> do you enjoy? Explain.’
Written form R	124	7A: Building vocabulary B	‘Read and listen to the article about stars. <b>Notice</b> the words in blue.’ Learners must <b>notice</b> highlighted words when reading.
Written form P	85	5A: Using vocabulary A	‘Read the article. Fill in each blank with a word in <b>blue</b> from exercise <b>A</b> on page 84.’ Learners must write items in blanks.
Word parts R	195	10B: Using vocabulary A	‘Use your dictionary to find other forms of the vocabulary words.’ Learners’ attention is focused on different forms of items.
Word parts P	4	1A: Building vocabulary D	‘Complete the chart with other forms of the words from exercises <b>A</b> and <b>B</b> .’ Learners must write the correct forms of items

			according to their part of speech.
Form and meaning R	44	3A: Building vocabulary A	‘Match each word with its definition.’ Learners’ attention is on the meaning of items.
Form and meaning P	104	6A: Building vocabulary B	‘Complete each sentence with a word from exercise A.’ Learners must produce the correct word to make meaning.
Concepts and referents P	95	5B: Using vocabulary C	‘Take turns asking and answering the questions with your partner.’ E.g. ‘What’s the name of a <b>popular</b> restaurant or cafe you know about? What do they <b>serve</b> there?’ Learners must answer questions using items and connect them with appropriate referents.
Associations R	69	4A: Exploring spoken English; Grammar A	‘Look for information about your list of words in your dictionary.’ Learners’ attention is focused on items ‘countability.’
Associations P	69	4A: Exploring spoken English; Grammar A	‘Complete the chart’ Learners must classify items under ‘count’, ‘noncount’ and ‘both count and noncount.’ This means they are producing classifications.
Grammatical functions R	168	9A: Exploring spoken English, Grammar A	‘Take turns saying the sentences below with the comparative or superlative form of the adjective in parentheses.’ E.g. ‘Fishing is (dangerous) job in my country.’
Grammatical functions P	171	9A: Speaking, comparing C	‘Compare the attractions using the comparative and

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

			superlative form of the adjectives in the box.’ Learners produce items in sentence patterns.
Collocations P	85	5A: Using vocabulary B	‘Complete each sentence with your own ideas.’ Learners fill in a blank next to or near an item. E.g. ‘I love to eat <b>raw</b> .’
Recycling	5	1A: Using vocabulary A	In this activity ‘spoken form P’ is explicitly instructed for the first time with these items and so this is recycling items through a different aspect.
Context	5	1A: Using vocabulary B	This activity contains an ‘article’ and thus provides a ‘meaningful context.’

### *Appendix 5: Mastering the word ‘underdeveloped’*

Receptive knowledge of ‘underdeveloped’ entails;

- Recognising the word when it is heard.
- Being familiar with its written form so that it is recognised when met in reading.
- Recognising its parts ‘*under-*’, ‘*develop-*’ and ‘*-ed*’ so enabling relating parts and meaning.
- Knowing a words meaning in a particular context which it has just occurred.
- Knowing the words concept allowing understanding in a variety of contexts.
- Knowing there are related words; ‘*overdeveloped*’, ‘*backward*’ and ‘*challenged*.’
- Recognising correct sentence use in which it has occurred.

Aspects of word knowledge: An investigation of the explicit exemplification of aspects of word knowledge in a global textbook used in South Korea.

- Recognising typical collocations such as; '*territories*' and '*areas.*'

(Nation 2001:26)

Productive knowledge of underdeveloped entails;

- Being able to say it with correct pronunciation and stress.
- Being able to write it with the correct spelling.
- Being able to construct it using the right word parts in their appropriate forms.
- Being able to produce the word to express the meaning of '*underdeveloped.*'
- Being able to produce synonyms and opposites.
- Being able to use it correctly in an original sentence.
- Being able to produce it with commonly occurring words.

(Nation 2001:28)