

An Investigation into the Use of Word Lists in University Foundation Programs
in the United Arab Emirates

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Abstract

There has been increasing interest in research on creating word lists in the past decade with more than 60 separate lists being published along with Nation's (2016) timely *Making and Using Word Lists for Language Learning and Testing*. However, this focus on word lists has primarily been on creating them and has not necessarily extended to looking at how they are actually used. In order to help answer the question of how these lists are utilized in practice, this exploratory, interpretive study based on interviews with teachers and assessment/curriculum developers looks at how word lists are used at five tertiary English foundation programs in the United Arab Emirates.

The main findings include the following. Insufficient vocabulary knowledge was deemed one of the most significant problems that students faced. Additionally, word lists played a role in all five of the institutions represented in the study, and the Common European Framework (CEFR) was used in conjunction with vocabulary frequency lists to help set expected vocabulary learning in some programs. Furthermore, teacher intuition was used to modify lists in three of the five programs and online applications were used in all five programs.

The thesis explores a number of areas in depth including: how vocabulary lists are being used in the programs, the use of the AWL in this context and potential problems related to this, the role of teacher intuition in the customization of lists, the role of CEFR related frameworks in these programs, the use of computer applications to assist with list vocabulary acquisition, what the selected

vocabulary acquisition activities tell us about beliefs about vocabulary teaching and learning, and some final comments about utilizing a list.

One of the key findings was the development of a novel framework for categorizing the use of word lists into four general areas: course planning, teaching and learning, assessment and materials development with sub-categories for each. This framework and the related examples could be utilized to evaluate the suitability of specific lists and to help set developmental targets for the process of adopting a new list and transforming it into something that could be used to direct and support vocabulary teaching and learning. It could also be developed further as more examples of practice emerge in different contexts and hopefully set the stage for more development about how vocabulary lists are used.

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Definitions

corpus – (plural: corpora) a collection of written works, often one based on a specific subject

coverage – the percentage of a frequency list to cover a corpora; the higher the coverage, generally the better a list functions as it represents more of the list

derived form – words that are related to the headword but are of a different part of speech (e.g. “writer” and “writing” (n) from the headword “write”)

flemma – Unlike pure lemmas, a flemma is a word family that consists of a headword and inflected forms of different parts of speech. Typically flemmas include more members than pure lemmas. The flemma for the headword walk would include: walk, walks (3rd person singular and plural noun), walking (all parts of speech) and walked (past tense and past participle) (Nation, 2016).

headword – (or root word) – the most basic, simplest form of a word (e.g. the verb “write”)

homofoms - words that have the same forms but unrelated meanings. These can be divided into homonyms (words with the same written and spoken forms, but with unrelated meanings), homographs (words with the same written forms but different spoken forms) and homophones (words with the same spoken forms, but with different written forms) (Nation, 2016).

lemma– a group of word forms with the same word stem that belongs to the same word class, for example, a lemma with the headword *direct* (verb) would include *directs*, *directed*, and *directing* but not *direct* (adj), *direction* (n), *director* (n) or *directly* (adv).

lexemes - a group of word forms that share the same basic meaning (apart from that associated with the inflections that distinguish them) and belong to the same class (Gardner, 2007)

tokens – also known as running words; each individual word in a text; typically used for counting purposes to show the size of a text or a corpus

word family – a group of word forms with the same word stem, for example, using *direct* again, it would include all of the forms mentioned above as well as those with inflectional and derivational affixes like *indirect* and *directionless*.

word frequency list - a sorted lists of word types, lemmas or word families together with their frequency in a given corpus. The words in the list are usually ranked from most frequent to least frequent.

word type – based on the graphic form of a word. Each graphically different form would count as a different word type.

Abbreviations

English language tests

CEPA – Common Educational Proficiency Assessment

EmSAT – Emirates Standardized Test

IELTS- International English Language Testing System

TOEFL – Test of English as a Foreign Language

Vocabulary Lists (see Appendix C)

AVL – Academic Vocabulary List

AWL – Academic Word List

GSL – General Service List

NGSL – New General Service List

Other

IEP – Intensive English Program

EAP – English for Academic Purposes

GPA – Grade Point Average

Chapter 1: Introduction

Ever since I started teaching English as a Foreign Language (EFL) to university students some 20 years ago in Istanbul, Turkey, insufficient vocabulary knowledge has represented one of the biggest challenges for my students. Judging by the amount of time spent in class directly teaching lexical items or helping explain them as they came up in reading passages, lectures, essay questions and in a variety of other items, my experience has shown me that a very significant percentage of students would agree that vocabulary forms the biggest part of the meaning of any language, and vocabulary is the biggest problem for most learners (McCarthy, 2001). A number of studies also help demonstrate the difficulties that university students whose first language is not English face with vocabulary. Berman and Chang (2001) found that understanding vocabulary in the subject area was one of the three perceived language difficulties that was shown to affect undergraduate nonnative English speaking students' GPAs. In a study of undergraduate students studying in an English medium university in Hong Kong, Evans and Green (2007) found that students' receptive and productive vocabularies were generally inadequate, especially in regards to both general and specialist vocabulary in reading and understanding key vocabulary in listening, along with speaking and writing. They found that "inadequate receptive and productive vocabulary in English is the main problem confronting the almost 5000 students who participated in the survey" (p.14). One of their key pedagogical findings was that EAP program design should "place a great deal of stress on the teaching and learning of subject-specific and common core lexis" (p.14).

Early in my career, I pondered why certain words were selected to be taught in coursebooks and whether the vocabulary that was introduced in the coursebooks, taught, and tested really was the vocabulary that students would need for their academic and professional lives. If not, what was the most important vocabulary for university students? This planted the seed of a personal inquiry: Is there a core set of academic vocabulary that is common across a range of academic disciplines? And if so, what needs to be done to help transform this list into a suitable resource for the teaching and learning of this vocabulary?

The use of vocabulary lists, especially those involving frequency, in English language teaching and learning has been an area of continued research for roughly the past 170 years. There has been a considerable amount of progress in the creation of these lists over the last 25 years, with a number of new and revised lists being developed and several potentially highly influential lists being released in the past few years alone. It seems clear from the beginning why word frequency is a primary focus on the majority of word lists. If learners gain a working use of the 1,000 most frequent word families, they will find that these cover about 74% of the words in almost any type of text (Nation, 2013). While this may seem impressive, we must remember that words like *the*, *and*, *of* and *to* can make up more than 10% of some corpora. This also means that almost one out of every four words is unknown, and those are the words that carry most of the message, which makes reading and listening exceptionally difficult if not

impossible. After the first thousand words, this coverage diminishes rapidly, and when dealing with different specialized subjects, the vocabulary may be very different from one topic to another.

I made one early effort to create a list by compiling a number of the resources that were available at the time and created an extensive series of quizzes to help ensure that the students “knew” all of this vocabulary. However, even though this was a small step forward and at least prioritized some important vocabulary, it was clear that even if there was an ideal, this was far, far from it.

Nation (2015) claims that “the major use of word lists is for research purposes, and this research can inform language teaching and learning” (p. 576).

When I moved to the United Arab Emirates some seven years ago and started teaching, I started working at an institution that had taken vocabulary learning to a new level by taking the research on word lists and using it to do just this: to help inform language teaching and learning. They had utilized thousands of teacher hours following some of the research behind frequency word lists and implemented it through the creation of a program-wide, stand-alone, independent, intensive vocabulary strand. It was a truly impressive feat, but as I began to use it and see how it was used, it became apparent that even this was not an ideal solution partially because of the vocabulary list that the project was based on.

Two years later when I started my EdD, my first study was on how different university foundation/intensive English programs used word lists (Burkett, 2015) a subject that continued to interest me as I was curious to see just what was being done in other programs around the world. Around this time, I also became involved in a new institutional effort to create a new vocabulary learning platform, one that would better suit the context.

Since that time, research on word lists continues to advance, with at least 15 new lists published in the past five years. Just last year, Nation (2016), one of the most prolific and imminent vocabulary researchers, published what appears to be the first book specifically on word lists- *Making and Using Word Lists for Language Learning and Testing*. Interestingly, the majority of this text focuses on making word lists, while only two of the 16 chapters focus on using word lists- the introductory chapter on the uses of word lists and the summative 12-page chapter on how to use word lists.

In the introduction of his new book. Nation assumes that the primary reason why word lists are made and used is to help “guide the design of a teaching and learning program aiming initially at receptive knowledge of vocabulary,” but that they can also be used for productive purposes and for the analysis of texts and vocabulary test construction (Introduction, p. x). In his last chapter, he says that word lists lie at the heart of good vocabulary course design, the development of graded materials for extensive listening and extensive reading, research on vocabulary load, and vocabulary test development (Nation, 2016).

However, despite all of this, there has been little published on specifically what lists are used in practice and perhaps more importantly, what pedagogical practices are put in place in order to effectively make use of these lists.

As such, this study aims to examine two areas:

- 1) the perceptions of teachers and curriculum and assessment coordinators in regards to the teaching and learning of vocabulary in English foundation programs in the UAE, and
- 2) how English vocabulary frequency lists are used in this specific context.

In order to do this, an exploratory, interpretive study was conducted to look in detail at how vocabulary is taught and how vocabulary lists are utilized in intensive English programs in a number of higher education institutions in the United Arab Emirates. In this context, while English is not the official language, it is commonly used as the primary language of instruction in tertiary institutions, but in many cases, the students' level of proficiency is not high enough to start university without some time in an intensive English program. Insufficient knowledge of academic vocabulary plays a substantial role in this.

This study will provide specific details and concerns about the teaching and learning of vocabulary in this context, illustrate how word lists are being used in some fashion at each of the five institutions, provide details about how teacher intuition was used to customize several of the lists, discuss the roles of the

Common European Framework(CEFR) and the Academic Word List (AWL) in this context, and look at how computer applications are being used to support vocabulary learning.

It will also present a novel framework for categorizing the use of word lists into four general areas that could be used to evaluate the appropriateness of individual lists and help transform a list into something that could be used to direct and support vocabulary teaching and learning. It could also potentially serve as a starting pedagogic guide on how to use these lists. As such, it will hopefully help develop the discussion on this very pragmatic area and contribute to better use of frequency vocabulary lists in a range of contexts.

After the introduction, the rest of the thesis is organized as follows. Chapter 2 presents a review of the literature. Chapter 3 describes the context of the study. Chapter 4 details the methodology used in the study. Chapter 5 describes the findings, and Chapter 6 presents a discussion of these findings. Chapter 7 is the conclusion for the research.

Chapter 2: Literature Review

While the topic of the use of word lists in English language teaching is a broad one that could easily expand to chapters of books (Nation & Webb, 2011; Coxhead, 2018) or entire books (Nation, 2016), this section aims to provide an overview of the key areas underlying the use of frequency and other word lists in university English language teaching. As such, it will address the following areas:

- the importance of vocabulary development in second language acquisition,
- breadth, depth and how many words learners need,
- word lists, corpora and units utilized in word lists,
- the principles of constructing word lists,
- grouping lexis by frequency,
- a brief history of frequency-based vocabulary lists,
- types and examples of word lists,
- uses of word lists in English language teaching and learning,
- critical questions about word lists, and
- new developments in word lists.

2.1 The importance of vocabulary development in second language acquisition

Learning a second language is a multi-faceted endeavor involving a wide array of cultural, linguistic and paralinguistic factors including vocabulary, grammar, reading, writing, listening, pronunciation, intonation, and body language, among

others. While most or all of these are necessary to function effectively in a second language, it can certainly be argued that vocabulary has a unique place of its own. As Wilkins (1972) put it, “while without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (p.111).

The importance of vocabulary acquisition in both native and foreign language learning has long been an area of research as lexis is essential for both language comprehension and language production. As Milton and Daller (2013) highlight about L1 vocabulary, “there is considerable evidence that vocabulary size in infancy is a strong predictor of linguistic and cognitive ability at four years and even at eight years.” As such, it is obvious that the importance of vocabulary development cannot be overemphasized.

Milton (2013, p.58) tells us that

in academic circles, the place of vocabulary in language learning has been significantly revised over the last decade and current academic thinking is very much at odds with much classroom and textbook practice. Far from being an element which is merely incidental to language learning, current thinking advocates that vocabulary may be crucial to the development of language performance overall.

Indeed, the size of an individual’s vocabulary is associated with almost all areas of language and academic study. General language proficiency (Nation, 2006; Staehr, 2008; Laufer & Ravenhorst-Kalovski, 2010; Milton, 2013), academic success (Milton & Treffers-Daller, 2013), reading comprehension (Beglar & Hunt, 1999; Staehr, 2008; Zimmerman, 2004), writing ability (Beglar & Hunt, 1999, Milton, 2013; Staehr, 2008; Zimmerman, 2004), listening comprehension, (Beglar

& Hunt, 1999; Milton, 2013 ; Staehr, 2008; Zimmerman, 2004), speaking proficiency (Zimmerman, 2004), grammatical ability (Bates & Goodman, 1999; Zimmerman, 2004), and even general intelligence (Anderson & Freebody, 1979) have all been correlated with vocabulary size. This is not to suggest that vocabulary knowledge is the primary factor in any of these, as motivation and experience may also drive many of these factors, but it clearly seems to have a significant role.

Specifically in regards to success at university, in a study of overseas students from China, Daller and Xue (2009) showed that lexical sophistication, or the use of low frequency or “difficult” vocabulary, was a more significant predictor of academic success in university studies in the U.K., than recognized international English exams like IELTS and TOEFL. Thus, helping learners improve their vocabulary breadth is clearly an area of importance, and not just for success in their English courses.

However, because English language learners are highly unlikely to learn more than a small fraction of the words in the language, there is a need to prioritize the acquisition of the most important vocabulary. Because of this, a goal of second language learning researchers and teachers is to devise strategies to make the vocabulary-learning load as manageable as possible. Schmitt (2008, p.329) points out that this is not just a job for teachers as “all four learning partners (curriculum designers, material writers, teachers and learners)...need to acknowledge the incremental nature of vocabulary learning, and to develop

learning programs which are principled, long-term and which recognize the richness and scope of lexical knowledge that needs to be mastered.”

2.2 Breadth, depth and how many words learners need

Vocabulary breadth, the number of words of which a learner has at least superficial knowledge of the meaning of, is perhaps the most common way of looking at vocabulary knowledge. It is also known as vocabulary size. However, before discussing this subject, it is important to acknowledge that there is no clearly agreed upon definition of what constitutes a “word.” Gardner (2007) goes so far as to say that determining what constitutes a word for counting and analysis purposes is “perhaps the greatest challenge” confronting corpus-based vocabulary research (p. 241). This is because of a number of issues including morphological relations between words, homonymy and polysemy and multiword items (Gardner, 2007).

While there are a number of different approaches to how words can and should be itemized that will be discussed more fully later in the chapter, perhaps the most common counting unit for calculating vocabulary size is that of the word family. A word family includes the base form of a word and any word that can be derived from that base form with the exception of ones that are compounded with other morphemes. For example, an example for the word family for *develop* (Bauer & Nation, 1993) would include: develop (verb), develops (verb), developed (verb and adjective), developing (verb and adjective), developable (adjective), undevelopable (adjective), developments (noun), developmentally

(adverb), developmentwise (adjective and adverb), semideveloped, (adjective), antidevelopment (noun and adjective), redevelop (verb), predevelopment (noun or adjective) and many additional words.

Therefore, when looking at vocabulary breadth, it is helpful to consider several key statistics including how many words or word families are in the English language, how many words an educated native speaker knows, and how many words an English language learner needs to know in order to be able to (1) communicate effectively and (2) study successfully at university, an area where insufficient vocabulary presents significant problems.

The number of words and word families in English has historically been a rather contentious subject (Schmitt, 2000) because of the question of what exactly should be counted as a word. While there are a number of areas where disagreement may occur, including archaic forms, slang, abbreviations, proper nouns, foreign words used in English, swear words, highly technical vocabulary, compound nouns and newly coined words, the key area of debate is the unit of counting and whether this should be based on word families or lemmas. While word families are the most popular unit for counting, lemmas are also used.

Francis and Kucera (1982, p.1) define a lemma as “a set of lexical forms having the same stem and belonging to the same major word class, differing only in inflection and/or spelling.” It also includes irregular verb forms in the same class, so that *teach*, along with the inflected forms *teaches*, *teaching* and *taught* would

all be included under the same lemma, with the verb form being specified. This point is discussed in detail later in this chapter.

The Oxford English Dictionary provides an example of a breakdown of this with full entries for 171,476 words in current use, and 47,156 obsolete words.

“However, this doesn’t take into account words with different word classes or derivations (such as noun and adjectives). This suggests that there are, at the very least, a quarter of a million distinct English words, excluding inflections, and words from technical and regional vocabulary not covered by the OED” (OUP, n.d.). Two recent efforts seem to have found at least some degree of agreement in the number of words in English. According to the Global Language Monitor, as of January 1st, 2014, (Global Language Monitor, 2014) there were 1,025,109 words in the English language while a study by Google reported in the same source around the same time based on its 15 billion-word Google corpus, put the number at 1,019,729, both questionably precise numbers.

If we count according to word families, then the number of base word families in English, excluding proper nouns, is around 54,000, based on a word count from Webster’s Third New International Dictionary, one of the largest non-historical dictionaries (Nation, 2013). Results on the number of words in printed school English, not including proper nouns, abbreviations, foreign words, etc. came up with a range of 54,000 to 88,500 word families (Nagy & Anderson, 1984). These are enormous numbers when one considers that word families, when expressed in affixed forms, could easily be increased by a multiple of four, as affixed forms

outnumber base forms four to one (Cunningham, 1998). Therefore, while there is no definitive answer as to how many words or word families there are in English, it is unlikely that even the most educated native speaker would know all of them because of the wide range of historical and technical words included in these counts.

The breadth of vocabulary of an average “educated” native speaker is another statistic that is exceedingly difficult to pin down because of the wide range of variables involved, including the lack of a standard method for calculating breadth, the question of how “educated native speakers” are defined and where they were educated, the units of measurement - words, word families, separate meanings, etc. - that are utilized, and of course, the question of how word knowledge is defined (Milton & Treffers-Daller, 2013). However, Schmitt (2010) points out that there have been several well-designed studies that provide reliable estimates. He identifies one by Goulden, Nation & Reed (1990), which found that New Zealand undergraduate university students knew about 17,000 word families, and one by D’Anna, Zechmeister & Hall (1995) that found that their students knew slightly less than 17,000 of the headwords in the 1980 Oxford American Dictionary. From this, Schmitt suggested that a range of 16,000 to 20,000 word families seems to be a reasonable estimate for an educated native speaker. This seems to be in line with Nation and Waring (1997) who suggest that a native speaker of English adds roughly 1,000 words a year throughout their education. However, another study (Milton & Treffers-

Daller, 2013) claims that this growth may be as much as 3,000 words per year, so these figures are by no means set in stone.

Clearly, second language learners do not have the time and opportunity to learn the same quantity of vocabulary in the same way that native speakers do (Laufer, 2014). More than 15 years earlier, Laufer (1998) also pointed out that lexical competence is the main difference between language learners and native speakers of the target language. While the question of what vocabulary is most important may vary to some degree from learner to learner depending on their specific language needs (e.g. general, academic, business, technical), as mentioned previously, one of the key principles behind prioritizing the selection of certain lexis is the cost-benefit principle, which states that learners should get the maximum result for the vocabulary they spend time to learn. This means that they should learn the words that they are most likely to encounter and use most often.

The most obvious criteria for the selection of this lexis is frequency, given that the most frequent words in English, in most general texts, are the ones that are encountered most often. Nation (2003, p.24) suggests “the time spent on them is well justified by their frequency, coverage, and range, and by the relative smallness of the group of words.” Thus, a question that naturally follows is what level of lexical knowledge is necessary for second language learners to be able to function effectively in English, and once again, this is a difficult statistic to

determine for a variety of reasons including the specific needs of the learner, the skills being utilized, and the context.

In the following discussion regarding frequency, there are two essential terms that will be used repeatedly through this section that need to be defined and discussed briefly, and these are *corpus* and *word frequency*. A corpus (plural: corpora) is a collection of texts. For corpus linguistics and for this research, a more specific definition is “a collection of sampled texts, written or spoken, in machine readable form which may be annotated with various forms of linguistic information” (McEnery, Xiao, & Tono, 2006, p. 6). Understanding the basics of corpora is essential for this topic because frequency lists are typically constructed on an individual corpus (or a combination of several corpora); therefore, any study or comparison of frequency lists must also take the corpora into consideration. Corpora can vary dramatically in age, size, topic, intended outcome and composition (the types and balance of texts utilized) and so two lists constructed using the same methodology could be very different if they are based on different corpora. For example, corpora that are tailored for English for specific purposes courses (ESP) should be selected from the students’ specific field of study. How corpora are constructed is a research topic in itself and with the advent of modern computational technology, one that has transformed the study of how language is used in a wide range of areas with practical applications for language learning, teaching and research.

Word frequency refers to how often a specific word or word family occurs in a specific corpus and lies at the heart of the focus of this research – the use of frequency-based lists in vocabulary teaching and learning. Depending on the type of corpus, there may be noticeable differences in which words are most frequent, so it must be acknowledged that any word frequency statistics relate to a specific corpus as specific words or word families may be more or less frequent in any given corpus.

When discussing the vocabulary size required for a second language learner to function in different contexts, a common discussion point is *text coverage* or *lexical coverage*. Coverage refers to the proportion of running words in a text that is accounted for by a particular frequency list. This is particularly relevant as it is also used to examine the percentage of vocabulary in a stretch of spoken or written discourse that needs to be known by a learner in order for him or her to be able to understand it. The lexical needs for different types of tasks vary considerably; for example, far greater vocabulary is needed to read an academic article as opposed to making daily conversation with friends or colleagues. A number of studies have been done on the lexical requirements needed for reading in particular, but there have also been studies for writing, speaking, and listening.

A relatively early study (Laufer, 1989) indicated that in order to have adequate reading comprehension of a text, one would need to know 95% of the lexis in a text, representing knowledge of 5,000 word families so that learners would be

able to guess the remaining unknown words from context. However, a study done by Hu & Nation (2000) roughly a decade later indicated that 98% lexical coverage was necessary for sufficient comprehension of a text, and one would need 6,000-7,000 word families to achieve this (Nation, 2006). Laufer & Ravenhorst-Kalovski (2010) go so far as to suggest two thresholds: an optimal one, representing the knowledge of 8,000 word families and a coverage of 98%, and a minimal one of 4,000 to 5,000 word families or 95% coverage. Schmitt, Jiang and Grabe (2011) analyzed each percentage point of coverage from 90 to 100%, attempting to describe the relationship between coverage and comprehension, and revealed a linear relationship between the two. According to their findings, if 60% comprehension is the target, 98% lexical coverage is needed.

Clearly, however, these are not universal figures, and the specific context may have a significant effect on these numbers. For example, Kaneko (2013) found that to achieve 98% coverage of the readings on the Tokyo University entrance examination, one would need to know between 4000 - 5000 word families. At any rate, even though there is no clear agreement on numbers, it is obvious that the greater a learner's vocabulary, the fewer cognitive demands will be placed on them for reading.

Writing is a completely different skill where productive lexical demands may vary wildly depending on the genre and type of task, especially in regards to academic writing, one of the mainstays of foundation programs the focus of this study. For

writing, Paquot (2007) points out a number of reasons why some lists like Coxhead's Academic Word List (2000), one of the most widely utilized academic word lists, are not ideally suitable for productive EAP purposes. These include the focus on word families, which may include extremely infrequent members of the family, which might seemingly carry just as much importance on the list as very common members, and the fact that as the list is based on word forms, it does not differentiate on meanings and parts of speech. A productively oriented academic word list should allow second language (L2) learners to do the things that academic writers do, e.g. evaluating, hypothesizing, contrasting, exemplifying, etc.

For speaking, like writing, the productive requirements vary dramatically depending on the task at hand. On one end, one of the first studies of oral English requirements (Schonell, Meddleton, & I. Shaw, 1956), conducted in the days prior to computers on Australian semi-skilled and unskilled workers with a roughly half-million word corpus, found that 2,000 word families covered almost 99% of the vocabulary used in their speech. On the other end, this could easily rise to the thousands or possibly tens of thousands of words required to teach specialized subjects like English literature or medicine.

For listening, a relatively recent study by van Zeeland & Schmitt (2012) suggests that 95% may be sufficient for comprehension of listening to first person anecdotes about people getting into unusual situations, which could be reached by knowledge of 2000-3000 word families. However, Schmitt et al. (2015)

acknowledge that due to their chronological structure, narratives are typically an easier type of listening than lectures or detailed explanations and that listeners rely more on top-down processing than readers. Additionally, length is another major factor as concentrating on a two-minute story is substantially different from listening to a 30-minute lecture. The suggested knowledge of 2000-3000 word families would clearly not be sufficient for academic or technical listening passages.

While breadth is clearly a key concern, it is important to emphasize that it is also necessary to discuss the depth of word knowledge - a multi-faceted construct that goes far beyond a count of individual words that are “known.” Milton (2013) tells us that the ancient Greeks identified three elements of word knowledge: knowledge of aural and written forms and knowledge of the meaning of a word. Clearly, our understanding of this has deepened considerably since then and varies dramatically depending on the audience. Richards’ (1976) vocabulary knowledge framework identified a number of aspects of word knowledge (syntactic behavior, associations, semantic value, different meanings, underlying form and derivations). Schmitt (2010) points out that most laymen “might consider a lexical item “learned” if the spoken/written form and meaning are known” (p.15); however, there is certainly far greater depth involved in lexical knowledge. For language learners, Folse (2004) offers a simplified version that includes single words, set phrases, variable phrases, and idioms. Schmitt (2010) also puts forth that another way to conceptualize this is by looking at overall proficiency with a word on some sort of scale, such as the 5-step scale used in

Paribakht and Wesche's Vocabulary Knowledge Scale (1997) where a deeper understanding of the word moves one further along the scale. For a more descriptive explanation, Anderson and Freebody (1981) explain that "we shall assume that, for most purposes, a person has a sufficiently deep understanding of a word if it conveys to him all of the distinction that would be understood by an ordinary adult under normal circumstances" (p.92-93). However, this explanation lacks the precision necessary to help inform acquiring a depth of knowledge of a word.

Nation (2013) gives perhaps the most thorough explanation of what is involved in knowing a word (Table 1), breaking this down into three separate areas, each with three sub-categories with both a receptive and productive focus. By looking at the three general areas of form, meaning and use, he offers a more effective understanding of depth of knowledge that can help guide vocabulary awareness or instruction. While this chart may be the most comprehensive one available, it still lacks precise definition of some areas. Milton (2013) lists the questions of how frequently a word must co-occur with another word for a collocation to be created and how to determine at what point the additions and changes to a word will form a new word rather than just being a derived form of an existing one.

Table 1 What is involved in knowing a word (Nation, 2013, p.49)

Form	Spoken	R	What does the word sound like?
		P	How is the word pronounced?
	Written	R	What does the word look like?
		P	How is the word written and spelled?
	Word parts	R	What parts are recognizable in this word?
		P	What word parts are needed to express the meaning?
Meaning	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concept and referents	R	What is included in this concept?
		P	What items can the concept refer to?
	Associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?
Use	Grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must we use this word?
	Collocations	R	What words or types of words occur with this one?
		P	What words or types of words must we use with this one?
	Constraints on use (register, frequency . . .)	R	Where, when, and how often would we expect to meet this word?
		P	Where, when, and how often can we use this word?

Looking at all of these, it is quite clear that when a language learner declares that they know a word, this provides little information about the depth of knowledge of that specific term. It also means that the sheer load of information associated with a single word can be overwhelming when presented in detail to English language learners. Likewise, it is apparent that it would be exceptionally difficult, if not impossible, to design an assessment instrument that can capture knowledge of all this diverse information. Schmitt (1998) made what is perhaps one of the best attempts at this by tracking the acquisition of just 11 words by three adult learners over the course of an academic year. While this did show improvement in the knowledge of meaning senses, it did not provide evidence of a developmental hierarchy for word types.

It must also be said, that vocabulary breadth and depth are by no means independent. If we look specifically at the areas of associations, collocations and use on Table 1, we find references to alternate vocabulary or lexis that is associated with the original item. Thus, we can see that, to some degree, it is necessary to develop vocabulary breadth in order to develop vocabulary depth. These are also not the only dimensions of vocabulary knowledge. Meara (1996) details another area of vocabulary knowledge that he calls “automaticity”, which refers to the ease with which the words a person knows can be recognized, processed or accessed for use in language.

2.3 Word lists: A general introduction

As a general introduction to the topic of word lists, it should be noted that there has been a veritable explosion of word lists in the last decade, with more than 35 being released since 2007 (see Appendix C) and the recent and timely publication of *Making and Using Word Lists for Language Learning and Testing* (2016) by Nation, one of the preeminent researchers in the field. The majority of vocabulary lists seems to be based on frequency due to the cost/benefit principle. In this context, the “cost” is the actual time spent learning the vocabulary, and the “benefit” is how frequently the learner will be able to encounter or use it. Therefore, it is more worthwhile to learn vocabulary that will be encountered more frequently instead of more esoteric vocabulary with more limited use whether this be in general English, general academic English or in a specific field.

There are a wide array of practical and critical concerns involved in the development of frequency-based word lists. These range from considerations about the intended purpose of the list to technical questions about how the lists themselves are compiled.

In this section, we will look in more detail about the practicalities and principles behind the construction of word lists. To begin with, while there may be a great deal of variation in the construction of individual frequency-based word lists, there do seem to be some common factors that are involved in the construction of such lists. Nation & Webb (2011) provide a six-step list to help guide the construction of word lists. These include (p.135):

1. Decide on the research question the list will be used to answer, or the reason for making the list.
2. Decide on the unit of counting you will use – word type, lemma, or word family. The decision should relate closely to your reason for making the list.
3. Choose or create a suitable corpus. The makeup of the corpus should reflect the needs of the people who will benefit from the use of the list. For example, if you are designing a list for very young learners, the corpus should include the typical uses of language that young learners would meet and use. The size of the corpus will also depend on the nature of the word list. Brysbaert and New (2009) present data suggesting that for high frequency words, a one million word corpus is sufficient. For low-frequency words, a corpus of over 30 million tokens is needed.
4. Make decisions about what will be counted as words and what will be put into separate lists. For example, will proper nouns be a part of the list, or will they be separated in the counting?
5. Decide on the criteria that will be used to order the words in the list. These could include range, frequency and dispersion or some summative value like the standard frequency index (Carroll, Davies and Richman, 1971).

6. Crosscheck the resulting list on another corpus or against another list to see if there are any notable omissions or unusual inclusions or placements.

While this provides a good general guide of many of the key steps in constructing a word list, the key issues of corpora and what is counted as a word bear further discussion. Additionally, a further discussion of a number of practical considerations in regards to constructing word lists follows.

2.4 Corpora

As mentioned earlier in this chapter, one of the key starting points for the construction of any frequency based word list is the source sub-corpus, corpus or corpora utilized. Corpora may vary drastically based on the source and genre of the texts, the age of the texts, and the country of origin among other factors.

While there are many potential examples of this, the most obvious can probably be seen in the General Service List (West, 1953), which is based on texts from around the 1920s. As was pointed out, even back as far as the mid 1970's (Richards, 1974), the GSL contained no "modern" words that were common even then like helicopter, astronaut or television, much less any vocabulary like computer, internet, digital or video. Therefore, if a focus on contemporary English is desired a more modern corpus should be utilized.

Corpora used to make word lists may range dramatically in size, from just thousands or hundreds of thousands of words (See Appendix C) for technical or specialized word lists to those used for more general word lists that may cover millions or even billions of words. Indeed, the larger end seems to expand every

year. One corpus constructed using Google's project to digitize all books in 2012 purported to contain 500 billion words, or 4% of all books ever published on Earth.

2.5 Units utilized in word lists

Perhaps one of the most important decisions in constructing a word list is how to determine what constitutes a "word" as this has an impact not only on how the calculation of how extensive the coverage of any text might be, but also for the theory of the pedagogy of vocabulary teaching and its practical applications in the classroom and beyond. Nation & Webb (2011) identify three main options for the units utilized in word lists: word types, lemmas, and word families. As Schmitt notes, "Different ways of counting lexical items will lead to vastly different results" (2010, p.188). While these three choices may be the most frequent options, there are indeed other units to use such as combinations of two of these three units, flemmas, lexemes or multiword units, each of which present difficulties of their own. Other options will be discussed below after a discussion of some of the advantages and limitations of each of the three main types.

Word types provide the most basic unit for classifying words beyond individual tokens with lemmas and word families being increasingly more encompassing. Individual word types have neither inflections nor derivations, so technically "animal" and "animals" would be counted as separate word types. Ward (2009), points out that for many weaker learners, like those in his context at a university of technology in Thailand who have a basic knowledge of roughly half of the

words of the General Service List, one of the most widely used frequency lists from the 1950's, the expectation that they are familiar with all inflected and derived forms of headwords is unrealistic. He notes that the 2000 headwords included in the General Service List, a word family based list, actually represent some 8000 word types. As might be expected, word lists involving word types have the highest number of individual items on them. Possibly because of this, they seem to be the least common of the three main options for units for constructing words lists.

Lemmas, and flemmas, are the second and third common units utilized for word frequency lists and ones that have seemingly increased in popularity in recent years with Gardner & Davies' Academic Vocabulary List (2013) utilizing the lemma and McLean's 2017 article encouraging the adoption of the flemma as a more appropriate counting unit. As mentioned earlier, Francis and Kucera (1982, p.1) define a lemma as "a set of lexical forms having the same stem and belonging to the same major word class, differing only in inflection and/or spelling." It also includes irregular verb forms in the same class, so that *teach*, along with the inflected forms *teaches*, *teaching* and *taught* would all be included under the same lemma, with the verb form being specified. *Teacher*, *teachers*, *teaching*, *teachings* and possibly *teacher's* and *teachers'* would be included in the noun form of the lemma. *Teaching*, used as an adjective (e.g. teaching assistant), would be yet another lemma. Unlike pure lemmas, a flemma is a word family that consists of a headword and inflected forms of different parts of speech. Typically flemmas include more members than pure lemmas. The

flemma for the headword walk would include walk, walks (3rd person + plural noun), walking (all parts of speech) and walked (V2 and V3) (Nation, 2016).

Gardner (2007) raises several points about why using lemmas as a counting unit may be problematic. First, he points out that irregular forms of verbs may pose quandaries (e.g. eat, ate; be, was/were) as to the psychological validity of such family relationships and cause more learning problems than their more transparent counterparts. This may especially be true for lower level learners who have not mastered the past tense. Second, he points out that there is an argument within corpus linguistics about how to deal with alternate definitions of the same word, or polysemy. Some argue that lemmas with separate meanings should be counted individually which clearly presents problems as this requires more than a simple counting of word forms and likely needs human analysis to code the specific meaning, as a computer frequency counter might easily mistake verb forms like *part* and *parts* with noun forms of the same (e.g. “They part at 10 pm every night.” “We need new parts for the car.”). Because of these, there is an increased chance of error in calculating different lemmas. McLean (2017) also points out that in cases where a word family approach covers 98% coverage of text, “the flemma only provides 85% coverage of the same text”(p.1).

Word family based lists are the most common type of list, and the most well-known lists are based on word families. Word family based lists have numerous advantages in that they are often the easiest to utilize for corpus-based research because there is no need to determine word forms of individual tokens: *enthused*

can be either a past tense verb or an adjective. However, Bauer and Nation's (1993, p. 253) relatively early assertion that "once the base word or even a derived word is known, the recognition of other members of the family requires little or no extra effort" is highly questionable, as members of word families including prefixes and/or suffixes may not be easily recognizable (e.g. use/reusability; constitute/unconstitutionally). In 2006, Nation clarified this to a more acceptable "when reading and listening, a learner who knows at least one of the members of a family well could understand other family members by using knowledge of the most common and regular of the word building devices" (p.67).

Clearly, while some members of the same word family like *sad* and *sadly* are quite easily recognizable, simply assuming that a student who knows one member of the word family knows all of the others is unrealistic. For example, if a student knows the word "please", can we presume that they would connect this with the word "unpleasantly"? Ward (2009) also points out initially feeling incredulous about Schmitt and Meara's (1997) claim that a quarter of their Japanese English majors did not recognize the existence of -ing forms of various verbs, but then revealed that his own research indicated that 44 out of 72 students in their sample seemed unable to associate the word type "using" with that of "use", illustrating a very limited knowledge of inflections (p.176). He points out that understanding the inflected-ed and-ing forms often necessitates a considerable knowledge of English grammar, which lower level students often lack. According to the Oxford English Dictionary, there are 167 different prefixes and close to 100 suffixes, with 60 forming nouns, 26 forming adjectives, five

forming verbs and three forming adverbs.

An added area of difficulty is word polysemy or homography, where the same word form may have more than one different meaning. In a word list as well-known as Coxhead's Academic Word List (AWL), 10% of the 570 word families were found to have multiple meanings (Wang & Nation, 2004), and if learners are expected to know multiple meanings and do not, this may also greatly inflate the presumed comprehension.

Clearly, the choice of counting unit involved in word lists can cause dramatic differences in what might be expected to be "known" to learn a word (see Gardner (2007) for more on this subject).

2.6 Principles involved in the construction of word lists

Aside from the basic unit of counting used for any word list, there are a number of principles that need to be considered when constructing a frequency based word list, the most common type of word list (other types will be discussed later in this section). Nation and Waring (1997, p.18) add the following five:

- 1) **representativeness** – including both written and spoken corpora as well as a sample of representative text types in the corpora;
- 2) **frequency and range** - including not just overall frequency in the corpus, but also range across a variety of text types and genres;
- 3) **idioms and set expressions** – phrases like "good morning" and "set out" might need to be included as separate entries;

4) **range of information** - deals with just how much information is provided along with the word on the list, e.g. are collocations, alternate word forms, variations in meanings, all included with the list; and

5) **other criteria** – like ease or difficulty of learning, necessity, cover, stylistic level and emotional words.

Representativeness is relevant because spoken and written corpora can vary greatly, with spoken corpora generally having a more restricted sample.

Additionally, a more limited sample of text types will not provide a representative sample. For example, a sample containing just language from newspapers would be considerably different from one that also contained textbooks. Most existing word lists cover this with a broad range of samples, although more specific lists may not, so it is an important factor to evaluate.

The frequency of vocabulary across a corpus and the range of parts of the corpus that it might appear in highlight the reality that in some types of texts, such as business English, some terms might be overrepresented compared to a more general sample and thus would not be suitable for a more general list. For example, Mungra and Canziani's (2013) *Academic Word List for clinical case histories* included only base words that ranged across at least 50% of the 24 medical areas that the journals used for the corpus were selected from. A more meaningful way of looking at this is called dispersion, or how “evenly” the word is spread across the corpus (i.e. a low dispersion rate would mean that the word only appeared in a small part of the corpus and a high dispersion rate meant it was represented throughout the corpus) (Gardner & Davies, 2013). To give a specific example, it would be desirable to have the vocabulary appearing across

a variety of text types rather than just one type (e.g. journal articles) as this might provide a more accurate sample of the range of academic language.

Idioms and set expressions can certainly be expanded on with multiword expressions (Martinez & Murphy, 2011), phrasal expressions (Martinez & Schmitt, 2012) spoken collocations (Shin & Nation, 2008), academic formulas (Vlach & Ellis, 2010) and academic collocations (Durrant, 2009, Ackermann & Chen, 2013), and it is fair to say that none of the major lists deal with this more than cursorily.

West's Word Family Framework (2012) also helps shine a light on the range of additional information that might be included with a list, like part of speech, common word forms, alternate definitions, etc. and how this information goes far beyond a discrete list. This also raises the question of what materials might be provided to teachers or to learners along with the list.

Item 5, other criteria, is perhaps the one that has been dealt with the least as there are a wide range of considerations that might only apply in specific contexts (e.g. inappropriate related terms in Islamic contexts, the focus of formal language in academic writing, etc.). Some other criteria that may be involved in the construction of lists are keyness (Paquot, 2007), opaqueness (Todd, 2017), technicality (Ho & Hyland, 2017) and adding “new” words to help adjust for older corpora (Brezina & Gablasova, 2015).

2.7 Grouping lexis by frequency

Using frequency as an underlying criterion, lexis can be divided into three general categories the borders of which are by no means agreed upon. These categories are high frequency words, medium frequency words and low frequency words (Nation, 2013), and following descriptions of these, some alternative suggestions for how to group lexis will be discussed.

The first of these categories is high frequency words, which most researchers put at ranging from 2000-3000 word families. This number is likely due, in part, to West's *General Service List* (1953), which contains roughly 2000 headwords. There are newer lists, like the two New General Service Lists (Browne, Culligan, & Phillips, 2013; Brezina & Gablasova, 2015) with 2,800 and 2,494 (2802 lemmas) words respectively. These will be discussed later.

Research on spoken English seems to support this figure, with Schonell, Meddleton & Shaw's (1956) previously mentioned research on the speech of Australian workers finding that roughly 2000 word families covered around 99% of their discourse (Schmitt & Schmitt, 2012). However, perhaps due to the age of this research and the relatively recent increase in vocabulary research, others, including Schmitt & Schmitt (2012), the Oxford 3000, and the Longman Communicator 3000 (2007), prefer a 3000 word family list. This number, together with proper nouns, can provide coverage of around 85% of non-specialized texts.

The most frequent vocabulary for most texts is actually contained in the first 1000 words, as exemplified by Nation (2013) who found that just the first 1000 most frequent words represent between 78 and 81% of the British National Corpus. After the first thousand most frequent words, as seen in the table below which represents text coverage over nine spoken and written corpora, the coverage seems to drop off noticeably.

The next category is mid-frequency word families, which Nation totals at 6000-7000 (depending on the number of high frequency words chosen) – ending with word family 9000. Nation (2013, p.26) claims that 9000 word families (plus proper nouns) provides 98% coverage of novels, and 8000 word families provides 98% coverage of newspapers.

Table 2 Vocabulary size and text coverage (written and spoken) across nine spoken and written corpora (Nation, 2006, p.79)

Word families	Approximate written coverage (%)	Approximate spoken coverage (%)
1st 1,000	78–81 ⁵	81–84 ⁵
2nd 1,000	8–9	5–6
3rd 1,000	3–5	2–3
4th–5th 1,000	3	1.5–3
6th–9th 1,000	2	0.75–1
10th–14th 1,000	<1	0.5
Proper nouns	2–4	1–1.5
14,000+	1–3	1

The final category is low-frequency words, the remaining 2%, includes those beyond the first 9000 word families (Nation, 2013). These may include more

specialized, technical or historical forms of words. These words are encountered very infrequently in general texts. While these words may be very frequent for some people or in some text types, they are less likely to be emphasized for a very general audience, though they may certainly be necessary for a specific text or for a specific career.

While not included because of frequency, it is nonetheless important to mention that Nation (2013) adds another category: specialized vocabulary. This general category may have numerous sub-categories like academic words and a variety of technical words, which in turn lend themselves to construction of specialized word lists, an area that will be dealt with later.

2.8 Frequency-based vocabulary lists: A brief historical background

Work on frequency-based vocabulary lists in English of some form or another has been going on for around 170 years (McArthur, 1998). Far earlier lists, such as Mulcaster's 8000 word list published in 1582 in his *Elementarie*, were more focused on the pedagogy of spelling than establishing a frequency per se (Good, 1928). The earliest frequency lists were developed for stenographers.

The first attempt at a frequency-based list in English seems to be that by Thomas Prendergast, in his "*The Mastery of Languages, or the art of speaking foreign language idiomatically*", a text expounding his method of learning foreign languages, which was published in 1864 (Howatt, 1984). In the latter portion of this text, Prendergast compiled a list of 214 words, not including nouns and

adjectives, which were “the commonest English words.” As Howatt details (p.158),

although it is based entirely on his intuitions, it is remarkably similar to the frequency-based lists used by twentieth century applied linguists. Altogether, out of a total of 214 words, 82% are among the first 500 most-frequent words on the Thorndike – Lodge (1944) list and another 14% in the second 500 words.

Furthermore, long before extensive work was done in the 1920’s and 1930’s on creating true frequency based word- lists, Prendergast also realized the value of “utility” and “frequency” as essential characteristics in word selection (Tickoo, 1986). However, as Espinosa (2003) notes, despite challenges like Prendergast’s list of the most common English words put forth as objections to the archaic vocabulary lists, no real changes were made, and the Grammar Translation Method remained the dominant method in foreign language instruction in the Western world, which meant that the focus on the most frequent and useful vocabulary in English would wait another 40-50 years.

The first frequency-based list “with a rigor and scale that would give it a serious objective value” (McArthur, 1998, p. 52) was in German and created in 1898 by F.W. Kaeding, once again for stenographers. Many other earlier attempts at frequency lists were based more on intuition than textual analysis, but even early on, many educational writers and researchers recognized the importance of the use of these lists.

The first truly influential, large scale, frequency-based list in English seems to be with Columbia University psychologist, Edward Thorndike’s, *The Teacher’s Book*

of Words, published in 1921. As early as 1911, after noticing that language teachers in Germany and Russia were using word counts to match texts with students, Thorndike began to count the frequency of words in English texts. In the first edition of his text, Thorndike included the most frequent 10,000 words. In 1932, he revised the list and expanded it to 20,000 words, and in 1944 with Irving Lorge, he again revised the existing list and came out with *A Teacher's Word Book of 30,000 Words*. The 1944 text was based on a hand-analyzed corpus of 18,000,000 written words and had 30,000 lemmas with 13,000 word families (Goulden, Nation, and Read, 1990).

Thorndike's lists provided an objective means for measuring readability and provided a basis for readability research that followed (DuBay, 2006). The question as to whether or not this type of list was suitable for different populations was raised as early as 1937 with McKee raising questions about the suitability of the list for writing/analyzing books for elementary school children. Despite these concerns, he along with many others pointed out the value of these lists for working with first or second language learners. However, as Nation (1997) indicates, the age of Thorndike's lists and the change in language reduce its efficacy.

An important list that was formulated using a different technique was the Dale Chall Word List, first created in 1948, and revised in 1995 (DuBay, 2006). This list, primarily composed of lemmas, was first constructed by identifying words that 80% of 4th graders knew and then used to calculate readability formulas.

The next, and perhaps still most well-known milestone in frequency lists, was Michael West's *General Service List of English Words* (the GSL), which was finally published in 1953 after almost 20 years in construction. West noted early in his career that vocabulary in reading texts could be made more accessible to children by replacing old-fashioned literary words with more common modern equivalents and by decreasing the frequency at which new words appeared in reading primers (Howatt, 1984). He had plans to design a full reading development program based on the slow, systematic introduction of about 1500 words. While this never actualized, in 1934, West organized a conference of specialists including Thorndike with a grant from the Carnegie corporation. The outcome of this was the *Interim Report on Vocabulary Selection for English as a Foreign Language* (1936), usually referred to as "The Carnegie Report", which after about 18 years developed into the roughly 2,000 word family GSL. It was noted quite early on that this list was focused on written English and did not represent spoken English in the same fashion (Richards, 1974). Furthermore, Howatt stresses that it is not strictly a word-frequency list as it has other components including the elimination of specialist items, potentially offensive and slang words, among others. As Espinosa (2003) emphasizes, the GSL list remained the predominate word-frequency list for almost 50 years and was used as the basis for computer programs such as VocabProfile on the *Compleat Lexical Tutor* (Cobb, 2017) that reference it to carry out lexical analysis including frequency studies.

The advent of modern corpus linguistics was the next major step with Kucera and Francis's *Computational Analysis of Present-Day American English* in 1967. This was based on the Brown Corpus of about 1 million words selected from a selection of then current American English sources. This revolutionized the field and made it manageable to analyze much larger corpora with much less effort.

Two studies after this (Campion & Elley, 1971; Praninskas, 1972) looked at the vocabulary required for academic study and assumed that students already knew the high frequency vocabulary (Nation, 2013). They also looked at academic language across a range of disciplines and texts. Their two lists were combined with two others by Ghadesy (1979) and Lynn (1973) to create the University Word List (Xue & Nation, 1984), which contained over 800 word families and gave an 8.5% coverage of academic texts, but just 3.9% coverage of newspapers and 1.7% of fiction.

The next most influential development, which will be dealt with in further detail below and is the last that will be mentioned in this brief history, is Averil Coxhead's Academic Word List (2000), often shortened to the AWL. This list is built on top of the GSL, and assumes that learners know the most frequent 2000 words in English. It acknowledges that students of English for Academic Purposes have far different needs than those studying general English and that academic corpora vary noticeably from non-academic ones.

2.9 Types and examples of frequency based word lists

While the exact number of word lists that utilize frequency as an underlying component in English is difficult to determine, there are well over 90 lists of one variety or another (see Appendix C for details on available lists). Categorizing word lists presents its own problems as many questions as to how the lists are compiled come into play. Issues as varied as corpus size and age, the type of texts included in a corpus, the counting unit (word type, lemma or word family), whether the lists are single or multiword, the size and scope of lists, the purpose of the list, and how old it is all have major importance in the usefulness and validity of a frequency-based list. To illustrate, a smaller, older corpus may not be as relevant for modern contexts as many technology-based terms may not be included. Likewise, a corpus assembled from introductory university textbooks will vary considerably from one compiled from novels or newspapers, while both may be useful for different groups of learners. Lists that are lemma based will have far less coverage than those that are word-family based, but they might be more suitable for use with lower level learners who have limited skills with word formation (see Ward (2009) for a discussion on this).

Beyond general English, there is specialized vocabulary, which includes both academic words and technical words (Nation, 2013), and word lists have been developed for both these categories. Word lists based on these three categories (general, academic, and technical) will be described in the section below, and some relevant examples will be provided.

2.9.1 General English lists

General English lists look at the use of English over a wide swath of non-specialized text sources. As such, they are typically based on very large corpora and look broadly at the language used. There are several uses of general English lists beyond using them in day-to-day teaching and learning. They can be used to help inform the assessment of the vocabulary size of language learners by looking at what words an individual knows from different frequency bands. This technique has been questioned as frequency may not be related to the actual difficulty in learning a word (Hashimoto, 2016). However, it remains in popular use (see www.lextutor.ca/tests or www.testyourvocab.com for an example of this).

Another important use of general English lists is to serve as a baseline to help identify more specialist academic or technical language. This is done by comparing the most frequent words from a more specialized corpus with those from a general corpus. As mentioned previously, West's *General Service List* (1953) served as the baseline for Coxhead's *Academic Word List* as well as other lists (See Appendix C). A more modern example of this is how Browne et al.'s *New General Service List* was used to create a *New Academic Word List* (Browne, Culligan, & Phillips, 2013), a *Business Service List* (Browne & Culligan, The Business Service List 1.01, 2016), and a *TOEIC Word List* (Browne & Culligan, The TOEIC Service List, 2016).

2.9.2 Academic/sub-technical word lists

General academic word lists aim to target vocabulary often used in higher education. Gardner and Davies (2013) claim that “control of academic vocabulary... may be the single most important discriminator in the “gate-keeping” tests of education” (p.1) in many English speaking countries around the world. A number of studies, including one of a diverse group of middle school students (Townsend, Filippini, Collins, & Biancarosa, 2012) in the U.S. reveal that insufficient knowledge of academic English is associated with a gap in academic achievement from groups of English language learners and economically disadvantaged students.

As mentioned in the brief history of word lists, academic word lists have been around since at least the early 1970's (Campion & Elley, 1971; Praninskas J. , 1972). As might be surmised, this type of list focuses on corpora made up of reading materials found in general academic contexts- that is, areas that cover a wide degree of academic fields rather than a specialized field like law or engineering, for example. As in the case of the American University Word List, this may just represent materials from a certain group of ten university textbooks (Yorkley, 1976). Later academic lists like the *University World List* (UWL) (Xue & Nation, 1984) and the most well-known academic word list of all, the *Academic Word List* (AWL) (Coxhead, 2000) were created from much larger corpora, as is the case with even newer academic word lists (Browne, Culligan, & Phillips, 2013; Gardner & Davies, 2013). There are a number of limitations and

arguments against using general academic word lists, which will be discussed briefly later in this section.

An important feature of many of these academic word lists (not including Gardner and Davies' lemma based *Academic Vocabulary List* or Paquot's (2010) *Academic Keyword List*) is that they are built on top of existing general English lists, typically a list such as West's GSL. Words appearing on the more general list and their derivatives are expunged in order to come up with a list that is more representative of the vocabulary in academic texts instead of those in general texts. This means that the academic list is limited by the quality of the general list upon which it is built, one of the arguments against some of the academic and technical lists.

Coxhead's AWL, as the apparent dominant word list in university English Foundation programs (Burkett, 2015), deserves some greater examination here. It was an attempt to improve upon Xue's and Nation's *University Word List* (1984); according to Coxhead (2000), the UWL was inherently flawed because it was an amalgamation of four existing lists that were based on smaller corpora and did not contain a broad enough range of topics. Taking these issues into consideration and using the basic principles of corpus linguistics, Coxhead constructed an Academic Corpus based on 3.5 million words and used it to identify lexical items that occurred frequently and uniformly across a wide range of academic material but that were not included in West's 2000 word GSL. A balanced number of short and longer texts were taken from four general

academic divisions of Arts, Commerce, Law and Science with seven subdivisions of each. It looked to identify word families as defined by a stem plus a closely related affix form where the stems could stand as free forms.

A total of 570 word families were identified for inclusion in the AWL, including frequent word families such as analyze, concept, data and research and less frequent ones like convince, notwithstanding and ongoing. The AWL covers about 10% of the Academic Corpus, and together with the GSL, they account for more than 86% of Coxhead's Academic Corpus (Coxhead A. , 2000). When compared to another non-academic corpus of 3.7 million words based on fiction texts, also collected by Coxhead, these words represented only 1.4% of the coverage. Compared to the UWL, the AWL had slightly higher coverage and was more than 300 words shorter.

The AWL has been enormously influential both in terms of its adoption by academic programs like intensive English/Foundation programs and for research purposes. It has been used as a basis to analyze academic vocabulary in a number of technical areas like medical research articles (Chen & Ge, 2007), agriculture (Martinez, Beck, & Panza, 2009), applied linguistics articles (Vongpumvitch, Huang, & Chang, 2009), finance (Li & Qian, 2010), and chemistry research articles (Valipouri & Nassaji, 2013).

It should be noted that there have been significant challenges to the concept of a general academic vocabulary list, and specifically to the AWL, the best-known

example of this type of list. Hyland and Tse (2007) point out that one word list cannot possibly serve students of different disciplines equally well because different disciplines use patterns of words in different ways in terms of meaning, grammar and form. They state that general academic word lists like the AWL fail “to engage with current conceptions of literacy and EAP, ignore important differences in the collocational and semantic behavior of words, and do not correspond with the ways language is actually used in academic writing” (p.236-237), and that there is a danger that these lists could mislead students into thinking they know more than they actually do. Durrant (2014) further details that “the vocabulary used by university students is strikingly diverse” (p.25) and that less than half of the content that was designed for specific student groups was generic academic vocabulary.

2.9.3 Technical word lists

For learners with more specific and often technical requirements, specialized lists have been developed to focus on a specific academic (or other) discipline. These lists have generally been developed with greater frequency in the years after the creation of both general vocabulary lists like the *General Service List* (1953) and academic word lists like Coxhead’s *AWL* (2000) as a response to the specific needs of students studying in more specialized programs. At this point in time, due to the increasing specialization in fields and the specific nature of these lists, there are probably more technical word lists than any other category, with some categories like engineering, business and medicine having a larger number of lists (See Appendix C). One general observation, due to the more specialized

nature of these lists, is that they are often based on far smaller corpora than others are.

Baker (1988) was one of the first to produce a specialized, technical vocabulary list using frequency and distribution criteria when she compared a general corpus to her corpus of medical journal articles. Other studies have produced (or attempted to produce) English word lists for various fields, such as business (Chujo & Utiyama, 2006; Konstantanis, 2006), computer science (Minshall, 2013), economics (Sutrsyah, Nation & Kennedy, 1994), electronics (Farrell, 1990), engineering (Ward, 1999; Mudraya, 2006; Ward, 2009; Hsu W. , 2013), medical journal papers (Wang, Liang, & Ge, 2008), medicine (Salager, 1983), (Hsu, 2013), pharmacology (Fraser S. , 2007), and science (Coxhead & Hirsch, 2007) (See Appendix C for a more thorough list).

As with many academic lists which remove frequent general vocabulary to focus on the academic domain, these technical lists often expunge either just the most frequent general vocabulary (typically 2000 -3000 words) or both general and academic lexis, or compare the coverage, especially with the AWL, with the most frequent remaining words characterizing the domain.

2.9.4 Combined approaches

Yet another approach is to combine two or more of these approaches (e.g. general and academic or academic and technical) or to add another category in order to compile a list that covers areas deemed important.

The *Billuroğlu-Neufeld List* (BNL) (Billuroglu & Neufeld, 2007) is a prime example of this and combines general vocabulary lists with the AWL to come up with a list of 2709 word families first published along with a dictionary with additional activities and an accompanying CD. This list was designed because the authors felt students needed both general high frequency and academic vocabulary to be able to succeed and that the distinction between general and academic vocabulary was unnecessary. It raises the question of whether the expectation that students know the most frequent 2000 word families is actually realistic. This list combines seven different sources including the GSL, AWL, and most frequent words from the BNC and Brown corpora among others, creating a combined list designed for academic settings (Gardner & Davies, 2013). By compiling the general and academic lists together, this approach works to amalgamate the lists so that a single construct can be created (Hancioglu, Neufeld, & Eldridge, 2008).

The Burkett list, an unpublished in-house list created by the author and used at a post-secondary institution in the United Arab Emirates, is another example of this. It combines current academic and general word lists to form a list of 2720 restricted word families. More information on this list can be found in the findings section.

The Oxford 3000 is a list that combines frequency and words that are very familiar to most users of English, including vocabulary for parts of the body,

words used for travel and, and words that might not be as common in a corpus, like Tuesday and Wednesday (Phillips, n.d.). This list was designed for the needs of English language learners and ties into Oxford's English coursebooks and graded readers. It takes frequency, range and familiarity into account and it employed at least 70 experts to provide input (Phillips, n.d.). This approach helps broaden out the list so that it also includes common, general vocabulary that might not be frequent, but which would typically be expected to be learned at an early stage. However, there are some unusual characteristics of this list. While frequency is supposedly a major element of this list, no frequency data is included in this large list, which means there is no apparent way to prioritize the more frequent vocabulary out of this longer resource. Additionally, it is neither strictly lemma nor word family based and combines adjectives and adverbs together under a single headword and includes words with the prefix "un-" under the base lemma of the word, seemingly focusing on very transparent relationships.

Another example of this might be context-specific word lists developed for a specific purpose. One example of this is the Taiwan Ministry of Education's Basic Word List (TBEWL), a 2000 "most commonly used" word list published as a curricular standard for junior high schools in 2003 (Hsu, Bridging the vocabulary gap for EFL medical undergraduates: The establishment of a medical word list, 2013). It is now presumed to represent the minimum English vocabulary knowledge that junior high school graduates should have mastered. It has about 75% similar coverage as the GSL, with the additional 25% being

lexis primarily for daily life including words like chopsticks, dumplings and wok (Su, 2006).

2.9.5 Lists focusing on multiword expressions

Vocabulary instruction generally focuses on individual words because they are the most basic lexical unit and because resources like dictionaries and coursebooks tend to provide definitions and explanations for them. While the majority of word frequency lists focus on single word units, whether they be word families, lemmas or word types, another important area is that of multiword units. These are phrases consisting of words that occur together frequently and can include collocations, multiword phrasal verbs, idioms and formulaic language, among others. This kind of formulaic language is considered by some researchers to be as important as individual words, and studies, though not conclusive, have found that from 32%-58% of text is composed of formulaic language (Schmitt, 2010). In Nation (2016), it is put forth that the largest challenge in making lists of multiword expressions is in “developing a clear operational definition of what will be counted as a multiword unit and then consistently applying that definition” (71).

There are growing number of multiword lists, but some important multiword lists include the Shin and Nation List (2008), the Martinez and Schmitt List (2012).

There are also a number of multiword lists for academic purposes (Ackermann & Chen, 2013; Biber, Conrad, & Cortes, 2004; Durrant, 2009), as well as lists for phrasal verbs (Gardner & Davies, 2007; Garnier & Schmitt, 2015).

2.10 Other varieties of word lists

If we look away from frequency lists, other models might help direct students' vocabulary learning. One is to use the topic-based approach commonly found in many English language course-books (Catalan & Fransisco, 2008). This has the advantage of being able to introduce vocabulary around a related subject, which allows an appropriate context, but a number of these topics are rather specific, and may lack a range of appropriate vocabulary. Additionally, if the course books or topics covered change, then all of the related materials can quickly become irrelevant and must be redesigned.

A second option is to create a list of “defining vocabulary” or words needed for the description of all the words in a dictionary for foreign learners like Stein's Common Core Vocabulary (Stein, 2002/2008). This approach makes it possible for a learner to access a much wider range of vocabulary through a dictionary.

Another notable model that has more recently become possible is using a learner's corpus like the Cambridge Learners Corpus (Cambridge University Press, n.d.), which allows users to search by level, exam, nationality, and type of error. While this may have some sort of frequency aspect underlying the selection of lexis included in the corpus, it is not transparent and often results in alphabetical, rather than frequency based results. Indeed, the fact that one can search by specific nationality, type of error and exam type puts it in a different category than strictly frequency-based lists and makes it potentially much more

valuable for teachers and learners. It could be utilized to help construct an alternative list to help guide learning that might more accurately reflect how “typical” learners acquire lexis; however, this might not always be suitable depending on the specific learners and their needs (e.g., students entering into an academic English focused program). The “level” used in this corpus corresponds to the Common European Framework, which is explained in the following section.

Another well-established model for organizing lexis, is utilizing the Council of Europe’s (2001) Common European Framework of Languages (CEFR) to help organize or prioritize the acquisition of lexis that is useful for certain functions or situations. Since its introduction, the CEFR has become the most referenced document upon which language teaching and assessment has come to be based, both in the EU and internationally (O’Sullivan, 2013). In this framework, all English (and other language) skills are framed around the three levels and six bands of the Common European Framework, from beginning to learn a language (A1) until mastery (C2). These stages are: Waystage (A1, A2), Threshold (B1, B2), and Vantage (C1, C2). Each level includes general descriptors for language skills (reading, listening, writing and speaking) as well as for grammar and vocabulary.

While space does not exist for an extensive commentary on the CEFR itself, it is a popular research topic and framework to which many high-stakes language tests (IELTS, TOEFL-iBT) and English course books are linked and therefore

warrants some discussion.

Numerous criticisms also exist and O'Sullivan points out that:

The notion of CEFR level itself is problematic in that a particular learner is not necessarily at the same CEFR level with respect to vocabulary range, grammatical accuracy or phonological control. In addition, there is little empirical evidence for the links that are claimed to exist between CEFR levels and a range of existing standardized exams.

Despite these, as of 2013, the CEFR had been translated into approximately 30 languages and had become the most commonly referenced document upon which language teaching and assessment has come to be based, both in the European Union member states and internationally (O'Sullivan, 2013). An example of its international use is in Taiwan (Wu & Wu, 2010), where all nationally recognized examinations must demonstrate a link to the CEFR.

The Vocabulary range criteria in the table below is an example of how the CEFR organizes lexis. Clearly, there is a gradation of difficulty in the chart below – A2 is described as “for the expression of basic communicative needs” and the next step in B1 moves to “express him/herself with some circumlocutions on most topics pertinent to his/her everyday life such as family, hobbies and interests, work, travel and current events”. However, with such general descriptors, it is apparent that trying to come up with specific band attributions for individual lexis - which may have a wide range of uses and contexts - might be highly subjective and varied.

Table 3 Vocabulary range criteria from Council of Europe (2001, p.112)

C2	<i>Has a good command of a very broad lexical repertoire including idiomatic expressions and colloquialisms; shows awareness of connotative levels of meaning.</i>
C1	<i>Has a good command of a broad lexical repertoire allowing gaps to be readily overcome with circumlocutions; little obvious searching for expressions or avoidance strategies. Good command of idiomatic expressions and colloquialisms.</i>
B2	<i>Has a good range of vocabulary for matters connected to his/her field and most general topics. Can vary formulation to avoid frequent repetition, but lexical gaps can still cause hesitation and circumlocutions.</i>
B1	<i>Has a sufficient vocabulary to express him/herself with some circumlocutions on most topics pertinent to his/her everyday life such as family, hobbies and interests, work, travel, and current events.</i>
A2	<i>Has sufficient vocabulary to conduct routine, everyday transactions involving familiar situations and topics.</i>
	<i>Has sufficient vocabulary for the expression of basic communicative needs.</i>
	<i>Has sufficient vocabulary for coping with simple survival needs.</i>
A1	<i>Has a basic vocabulary repertoire of isolated words and phrases related to particular concrete situations.</i>
Source: <i>Common European Framework of Reference for Languages: Learning, teaching, assessment, Council of Europe, Cambridge University Press, 2001, page 112</i>	

However, despite the challenges of such a task, there have been at least three attempts to map frequent vocabulary onto the CEFR. These include the *Word Family Framework* (West R. , 2012), *LexiCLIL A lexical syllabus for the Common European Framework for English* (2009), and the *English Vocabulary Profile Project* (Cambridge University Press, 2015). This type of lexical organization looks more like a table than a list, and often includes more word information like parts of speech. An additional feature is that members of a word family may be listed at different CEFR bands based on how they might be used. While the

words selected to be included in these organizational schemes may be selected for frequency, they are not organized by frequency. A brief summary of each of these three resources follows.

The first is Richard West's *Word Family Framework (WFF)*, a project conducted on the behalf of the British Council, which has been used in some commercial textbooks such as Oxford University Press's *Q: Skills for Success* series. The WFF is a searchable resource for teachers and learners of English that consists of over 22,000 vocabulary items arranged according to the six levels of the CEFR. It highlights the expected progression of learners with regard to their acquisition of the various derivations inside a word family.

Table 4 Distribution of common word families in the Word Family Framework (West, 2012)

CEFR level	A1	A2	B1	B2	C1	C2	X
no. of new headwords	1200	900	1100	800	1000	1000	0
cumulative headword total	1200	2100	3200	4000	5000	6000	6000
no. of new vocabulary items	1750	1850	2750	1900	2500	3100	8300
cumulative total of vocabulary items	1750	3600	6350	8250	10750	13850	22150

The list is based on a word family approach that maps different word forms across the CEFR, an example of which can be seen below for the word family

“value”. However, it is unclear exactly how this mapping was done and little exists in the way of source material or documentation for this resource.

Table 5 Word family progression for “value” in the WFF (West R. , 2012)

headword	A1	A2	B1	B2	C1	C2	X
value	value <i>nCU</i>	value <i>nU</i>	valuable <i>adj</i>	value <i>vT</i>	valuation <i>nCU</i> invaluable <i>adj</i>		valued <i>adj</i> devalue <i>vT</i>
			evaluate <i>vT</i>				evaluative <i>adj</i>

The second CEFR aligned effort is the *LexiCLIL A lexical syllabus for the Common European Framework for English*, developed in 2009 by Steve Neufeld and John Eldridge and linked to the BNL word list. These CEFR bands are also input into Cobb’s *Compleat Lexical Tutor*, so a text can be put into this and it will color code the lexis according to the CEFR band to which it has been allocated. Unfortunately, it seems that little or no work has been done on this list since 2009. Additionally, according to the pdf document that seems to represent the majority of the project, it was based on the Rinsland corpus from 1945, which was a 6 million-word corpus of the written work of American grade 1-8 students. Using an older, American, grade school focused corpus is likely to have some substantial limitations. Below is a table showing how the lexis was distributed across the bands of the CEFR. Once again, little information is available as to exactly what criteria were utilized to allocate vocabulary to the different bands.

Table 6 - LexiCLIL Headwords and Word family words by CEFR band (Neufield & Eldridge, 2009)

	Headwords	Family Words
A1	692	1154
A2	567	1376
B1	604	1630
B2	526	1847
C1	393	2130
C2	434	1825

The third vocabulary resource based on the CEFR is the far more extensive English Vocabulary Profile Project (EVP), developed by Cambridge and based on the Cambridge Learner Corpus, a collection of over 44 million words of language produced on Cambridge exams by learners around the world. This project purports to show the most common words and phrases that learners need to know in both American and British English. The meaning of each word or phrase has been assigned a level from A1 through B2, but the C1 and C2 levels are not included in this list.

The English Vocabulary Profile Project is part of the English Profile Project, which according to Saville & Hawkey had the aim of providing:

descriptions of English covering all six levels of the CEFR in one coherent approach through a programme of interdisciplinary research that would be informed by theories from psycholinguistics and second language acquisition and would be based on empirical evidence especially from learner corpora. The outcomes would include specifications of learning objectives by level (A1 to C2) and provide the basis of detailed diagnostics by level – grammatical, lexical and functional exponents (later to be known as criterial features) (Saville & Hawkey, 2010).

It is certainly the most developed of the attempts to align the learning of

vocabulary with the Common European Framework. Work on the initial wordlists started in 2007 and the preview first became available in 2008 (Saville & Hawkey, 2010). It is informed by a number of sources including:

wordlists from leading coursebooks, readers wordlists, the content of vocabulary skills books, the Vocabulary Lists for the KET and PET examinations, which have been in use since 1994 and have been regularly updated to reflect language change and patterns of use, and the Cambridge English Lexicon by Roland Hindmarsh (Cambridge University Press, 2015).

as well as the Cambridge English Corpus, which was used to investigate first language frequency. It has also been subject to a substantial amount of review with outside experts contributing to it as well.

This project has already been used to create additional word lists like the Cambridge English Vocabulary List: Preliminary (UCLES, 2012), which targets the B1 level, aimed at Cambridge's PET exam. This includes a 40-page list of alphabetized words/ lemmas as well as sets of words sets that students are expected to know, such as numbers, days of the week, months of the year, seasons, countries, languages and nationalities.

Yet another option for approaching vocabulary that is aligned with the CEFR is Pearson's Global Scale of English (GSE), which has an ongoing project to develop the GSE Vocabulary, a graded lexical inventory that aims to index and scale the "lexical exponents needed to acquire the competences described in the framework, with the ultimate goal of making language learning more efficient" (Benigno & de Jong, 2017).

The GSE Vocabulary uses a mixed methodology combining initial corpus frequency analysis from three large corpora (the Longman Corpus Network, the spoken component of the Corpus of Contemporary English (COCA), and the UKWAC a two billion-word web based corpus) and subsequent teacher judgements on communicative usefulness. For the initial vocabulary selection, more than 20,000 lemmas were extracted from the three corpora and a learner's dictionary to combine a total of about 37,000 word meanings of both the most frequent vocabulary and lower frequency but pedagogically useful vocabulary (Benigno & de Jong, 2017).

For the teacher judgment aspect of the projects, each of the 37,000 word meanings was ranked by ten of a pool of 19 English teachers on a 1-5 scale based on the perceived usefulness from essential to extra. Then the frequency information from the corpora and the teacher ratings were combined to produce a weighted value to rank vocabulary based on assumed receptive knowledge.

This approach seems to tie in with one of Stein's (2016) suggestions in pursuit of an optimal general common core vocabulary in which statistical text frequency is combined with functional relevance. Whatever option may be chosen, it is clear that, as Stein (2016) identifies, "the question of what should constitute such a lexical core has preoccupied linguists and educationalist for more than a century" (p.1) and continues to do so in the quest for the most optimal way of directing and ordering the acquisition of vocabulary.

2.11 Uses of frequency based word lists in English language teaching and learning

Throughout the development of all of these lists, different ideas on how to use them for English language learning and teaching have been expressed. As Nation and Waring state (1997, p.17), “Frequency information provides a rational basis for making sure that learners get the best return for their vocabulary learning effort by ensuring that the words studied will be met often. Vocabulary frequency lists which take account of range have an important role to play in curriculum design and setting learning goals.” Therefore, these word lists are one way to help direct vocabulary teaching and learning. Indeed, as Nation highlights (Nation, 2004):

Making word lists in the field of L2 learning and teaching is usually done for the purpose of designing syllabuses and in particular it is an attempt to find one way of determining necessities (what needs to be learned) as a part of needs analysis.

In his most recent book on word lists (2016), Nation expounds on this and focuses the majority of the discussion on the assumption that “word lists are being made to guide the design of a teaching and learning program aimed initially at receptive knowledge of vocabulary (p. xi).“ He also discusses lists for productive purposes and lists designed for the analysis of texts and for the construction of vocabulary tests.

Perhaps due to the highly commercial nature of the English Language Teaching world, it might come as no surprise that one of the main uses of these lists is by ELT and non-ELT book publishers. Corpora and frequency lists have been

utilized by English language teaching and learning publishers at least since Thorndike's book of 20,000 words (McKee, 1937). Even with Thorndike's first lists prior to West's General Service List, the use of these lists by publishers was quickly acknowledged, especially for use in developing reading skills for elementary school students (Lorge & Thorndike, 1963). These lists are utilized by modern publishers as well, as can be seen by the use of the Oxford 3000 and the Academic Word List that are used to inform choice of lexis used in a variety of texts such as those in the Q series and *the Inside Reading, Inside Listening and Speaking, and Inside Writing: The Academic Word List in Context* series by Oxford University Press and or as a focus for a text itself as in *Focus on the Academic Word List* by Diane and Norbert Schmitt.

Additionally, while students certainly can utilize these lists to target vocabulary development, Nation believes that these lists are not intended to be given directly to students, but rather to serve as a guideline for teachers and bookmakers (Nation, 1997). This has included dictionaries and course-books that are tied directly to these lists. They can also be used to help guide the development of curriculum and assessment materials. Along with a tool such as the Compleat Lexical Tutor (Cobb, Compleat Lexical Tutor, 2013), the lists can be used to check the appropriateness of the lexis in texts to match a certain level of learner, and where they are found to be too difficult, they can be simplified accordingly.

Vocabulary lists are also used in the creation of high stakes exams, for example, on Pearson's website for the Pearson Test of English, they note that they use

their own corpus of international English as well as an academic collocation list that they provide. Additionally, for the development of the Password Exam, Dr. Tony Greene of the University of Bedfordshire specifically notes (2011) that “they used corpus based wordlists such as the academic wordlist (Coxhead, 2000) and word frequency lists based on the British National Corpus to identify words that learners would need to know in order to access academic texts across disciplines”(p.7).

Another use of these lists is in countries where English is not the official language but where it is part of the national curriculum (Hsu, 2009; Su, 2006). Countries like Taiwan and Malaysia have lists that are used in primary or secondary school to ensure that students learn the most frequent and useful lexis. For example, the 2,000 basic word list published by Taiwan’s Ministry of Education in 2003 has “served as a curricular standard for the English course design for elementary and high schools... the 2,000 lexical items are presumed to be the minimum vocabulary of EFL high school graduates entering university” (Hsu, 2009).

2.12 Critical questions about word lists

To move to a more critical perspective, which does not seem to be covered as clearly in the literature, there are a number of key questions regarding the construction and use of these lists, which include:

- Are they worth making?
- What problems have to be overcome to use word lists effectively?

- Are there inherent limitations of wordlists?
- Are there other options besides frequency?

To go through these, we should first consider if it is worth making a list involving frequency or not. This question depends on a number of factors including desired goals of the institution or program in conjunction with the lists, the size of the institution, the profile of the learners, available resources, and needs for standardization and transparency. For publishing companies, larger exam boards, and larger programs that require a certain level of standardization, it is definitely arguable that by clarifying the expected lexis with an explicit frequency focus, it will certainly help all involved stakeholders to be fully aware what is expected of them with a logical underlying method.

If a list is aligned with assessment and curriculum for different levels inside an academic program, assessing what the students should know at any given point becomes more transparent for all stakeholders. These lists can be used for pedagogic practicality to help guide learners to acquire a solid base of the most frequent general, academic or technical vocabulary.

However, in some cases, the argument does not seem to be quite as strong. If a program is smaller or if individual instructors are given full autonomy for assessment and materials, it might be better to focus more on the specific perceived needs of the students. This could include a wide range of possibilities including specific educational or professional needs (i.e. training for the hospitality industry or medical English), constraints of the course itself (e.g. being

required to use specific materials upon which the learners might be assessed, only focusing upon spoken language), or the need to focus on specific lexical issues possibly based on widening awareness of lexemes, delving into L1 related issues or building on previous English language education. Additionally, if the course is composed of higher level learners who have mastered most of this vocabulary, these lists might not be suitable for use and instead, “teachers should teach vocabulary learning strategies to learners so they can learn those rarer words on their own” (Schmitt & Schmitt, 2012).

Admittedly, there are a number of problems that lists that have an explicit frequency component have to overcome if they are to be used in an English language teaching and learning context. Some of these include the points that these lists were typically not designed specifically as a list for language learners, they may include a great number of words related to more advanced concepts or grammatical structures, there is no agreement in between lists about covering items like days of the week, months of the year, numbers, basic grammatical words like pronouns, and they generally do not include set expressions, phrasal verbs, collocations and formulaic language. Not least of all is the very pertinent question of how English language learners will interact with the list.

Additionally, it must be readily admitted that there will be limitations in almost any word list. To begin with, it can easily be argued that there is no “one-size fits all” corpus because the corpus should correspond to the purpose for which it has been constructed or selected. For example, a corpus of 20 million tokens from a

wide range of texts will have little or no relevance for students in an engineering program. Furthermore, as mentioned previously, each base unit of a word list, whether it be word type, lemma or word family has inherent limitations. While a word list based on word types like the Basic Engineering List (Ward, 2009) might be ideal for lower level language learners who have difficulty with recognizing and constructing word forms, it will provide very limited coverage of a text, and might be less suitable for dealing with authentic texts.

The final question of whether there are other options than frequency has been dealt with to some degree previously in the section on other varieties of word lists, but clearly the answer is yes. Options like the CEFR are not strictly frequency based, but rather based on how the learner will use the vocabulary (survival needs, routine everyday needs, academic needs, etc.) which may have little to do with how it is used in any corpus, but might be more appropriate pedagogically or even practically if students are living in an English speaking environment and have specific needs. Using a learner's corpus or samples of previous student work are other examples that might be more appropriate in some contexts to help offer a possibly more accessible and suitable model of the specific language learners need to complete certain tasks or master certain skills.

There are certainly other possible options, but if learners will be encountering unmodified English that comes close to resembling the materials that the corpus informing a frequency list are based upon, then a solid argument seems to exist

that focusing on the most frequent vocabulary is a worthwhile goal, while the question of exactly how this is done still remains.

2.13 New developments in word lists

While the amount of material on word lists and the number of new lists published in the past decade could easily represent a book in itself, in this section I will look more in-depth at the publication of three more recent lists, which seem likely to be influential in the future.

The first of these was “*A New Academic Vocabulary List*” (AVL) by Gardner and Davies (2013). They identify that a new Academic Word list is needed for a number of reasons, with the most pronounced being the AWL’s relationship with the GSL list and its use of word families to determine word frequencies. They highlight that the GSL is actually based on corpus work from the early 1900’s and that the AWL actually contains many words in the highest frequency lists of the BNC, raising questions about whether or not it is a representative academic list. One example of this is the word *policy*, which ranks as the 271st most common word in the BNC (Kilgarriff, 1995), but which is included in the first band of the AWL.

Gardner and Davies (2013) go on to emphasize that they have had similar results with the distribution of Academic Word families in a recently published dictionary based on *The Corpus of Contemporary American English*. The result was the creation of the new 500 lemma Academic Vocabulary List (AVL) based

on the 120 million-word COCA academic corpus. They also converted this into a 2000-word family list so that direct comparisons could be made between the AWL and the AVL.

Newman's (2016) and Hernandez's (2017) comparison of the AWL and the AVL found that while both lists were well-represented in the corpora used, the AVL had better coverage overall. Newman found that the AVL provided coverage of more unique frequent academic word families and Hernandez found that in the corpus of 50 texts from an Intensive English Program (IEP), the AVL outperformed the AWL in all of the measures included in the study. Durrant's (2016) investigation of the AVL in student writing found that while the use of AVL items was high, there was major variation across disciplines and that there was only a small core of 426 items that was common across the disciplines.

The second list of note was the "*New General Service List*" (new- GSL) created by Brezina and Gablasova. They also acknowledge that even some 60 years later, the GSL is still by far the most influential and widely used word list, despite many of the failings discussed earlier including age and subjectivity of words.

Therefore,

instead of using additional qualitative (subjective) criteria as West did, we chose a combination of three quantitative measures: frequency, dispersion and distribution across language corpora. These measures guarantee that the words selected for the new vocabulary list are frequently used in a large number of texts and that the wordlist is compiled in a transparent and replicable way (2013, p.3).

Like the AVL, this new-GSL relies on lemmas, and reports a common lexical core between the four wordlists of 2,122 words, with almost a 71% overlap between these texts. In addition, as two of the corpora were based on more modern sources, they identified another 378 lemmas that were not included within the first 3000 words on the older lists. These (p.14) included new words like *Internet* and *website*, new meanings of old words like *user*, *network* and *mobile*, and old words with recent prominence like *computer*, *movie* and *environment*. Therefore, in total, the new GSL includes 2,494 lemmas, with almost half of the words being nouns, followed by verbs with 22%.

One apparent limitation is the limited breadth of these lists, quite possibly because of the focus on lemmas. When looking at the combination of the new-GSL and the new AVL, there is a great deal of overlap between the two lists, with only 54 words on the AVL that are not included in the new-GSL, and of the 500 words on the AVL, 201 are included in the first 1000 lemmas of the new-GSL. Therefore, these lists are much more limited in range than the combination of West's GSL and Coxhead's AVL.

The third important frequency word list is another new General Service List (NGSL) developed in 2013 by Browne, Culligan and Phillips. This list was based on a carefully selected 273 million-word subsection of the 2 billion word Cambridge English Corpus (CEC), and in its creation, followed many of the same steps that West took. In the creation of this approximately 2800-word list, they aimed to: update and greatly expand the size of the corpus used, create a list of

the most important high-frequency words useful for second language learners of English, that gave the highest possible coverage of English texts with the fewest words possible, and make a NGSL that is based on a clearer definition of what constitutes a word.

The table below, provided by the authors on the website, shows the improvement in coverage that the NGSL has over the original GSL when considering each of the words on the list with its associated inflected forms (lemmas):

Table 7 Comparison of GSL and NGSL (Browne et al., 2013)

Vocabulary List	Number of "Word Families"	Number of "Lemmas"	Coverage in CEC Corpus
GSL	1964	3623	84.24%
NGSL	2368	2818	90.34%

It is unclear why a subsection of the CEC was utilized rather than the whole corpus or how they were able to have only about 450 more lemmas than word families when the GSL has almost double the number. Additionally, while this list reports that it provides more coverage, the number of lemmas is higher than the new-GSL and the AVL, which raises questions about which list or combination of lists would be more effective.

It is clear that some of these lists may provide a valuable contribution in the future if they are embraced by teachers and publishers. However, this seems unlikely to happen on a large scale like the original GSL as many independent efforts have been made to create similar lists; it is certainly a different era to when West created his list in 1953 without the aid of computers!

2.14 How Word Lists are Being Used

While there has been a substantial increase in the development of frequency based and other vocabulary lists related publications over the past twenty plus years, with numerous publications on constructing lists, the creation of at least 80 lists (see Appendix C), the development and spread of frameworks like the CEFR and the GSE, vocabulary specific resources like the EVP, and increasingly available free corpus tools like AntConc and free corpora like the Corpus of Contemporary American English (COCA) and others, there has been a surprising dearth of information on both what lists are being used in programs around the world how these lists are actually used. Nation (2016), states that “The influence of word lists on curriculum design is rather uncertain. Most course designers do not take account of vocabulary knowledge and vocabulary levels in a systematic way” (p.172). He gives the example of the AWL as a possible exception to this, a finding that an exploratory study (Burkett, 2015) confirmed, possibly because of its focus on 570 word families broken into ten lists, creating a manageable length compared to general word lists like the GSL, NGSL, n-GSL that reach up into thousands of words.

Personal experience has shown me that some course developers do give a great deal of importance to vocabulary and work to develop it in a systematic way, as mentioned in the introduction. Unfortunately, details of this in the literature are sparse, possibly because the focus in many institutions like this is on teaching rather than research. Two very general ways have been put forward for this (Nation & Macalister, 2010), a series approach, where the list of words is worked

through, making sure that each is covered and repeated, or a field approach, where words from outside the list are largely excluded and the target vocabulary is addressed as it appears.

However, these general approaches seem to raise even more questions that they answer: in a series approach, what is covered and repeated - is it a simple definition? If it is a word family based list, are all members of the word family introduced? Are usage and collocation covered in depth? Is a context provided for the words in the list? Is the coverage entirely receptive, or is there productive usage as well? For a field approach, how exactly are words from outside the field excluded? This seems to indicate that materials restricted to only the vocabulary in the list are being used, and if this is the case, how are these materials being prepared, and what happens when authentic texts or authentic language are brought into the picture.

With the plethora of increasingly specialized lists that have become available ranging in length from hundreds of word types to thousands of word families (see Appendix C), the lack of a suitable list seems like less of a limitation. Indeed, with the increasing availability of DIY corpora construction tools, it is clear that some researchers are constructing individualized word lists for intensive courses (Davies, Fraser, Lauer, & Howell, 2013) or for entire programs as I did several years ago (details available in the context section), the question of what is being done with these lists in actual programs seems even more pertinent to address both to examine some of the practical challenges of using lists as well as to

hopefully help identify examples of practice that might serve as models for different programs. Additionally, on the alternate side of the second point, it would also be valuable to highlight examples of “misuses” or bad practice so that these can also be avoided. If awareness of what is being done with these lists can also be raised, perhaps more course designers will take vocabulary instruction and materials into more consideration.

2.15 Aims of the Thesis

Therefore, taking all of this into consideration, the main aim of this research is to investigate how word lists are being used in foundation English programs at universities in the U.A.E. as this seems to be a critical question into the use of these lists that has not been examined in detail. Additionally, in order to gain a better understanding of the challenges of vocabulary teaching and learning in this context, the perceptions of the teachers in regards to both of these will also be examined.

This brings us to the two research questions informing the study:

- 1) What are the perceptions of teachers and curriculum and assessment coordinators in regards to the teaching and learning of vocabulary in foundation English programs in the UAE? More specifically, what unique challenges and concerns exist and how are these currently dealt with?
- 2) How are frequency-based and other word lists being used in tertiary foundation English programs in the United Arab Emirates?

Chapter 3: The Context

The geographical setting for this research is the Middle Eastern country of the United Arab Emirates, a geographically small country that has become increasingly important globally due to its substantial reserves of fossil fuels and national and international investments from the wealth generated from these reserves. It is also a country whose educational environment is unlike that of any other in the world because of its multiple layers of education with seven semi-independent emirates wherein Emirati citizens can be educated free from grade school through university at government institutions or at a multitude of private, fee-paying schools with a wide array of curricula. There are also multiple free zones, wherein a large number of international university branch campuses that serve both local and international students are located further adding to the complexity of the educational environment.

This section will give a brief introduction to the country itself and the early role of English and the British influence on the UAE, before moving into a more in-depth look at the history of primary and secondary education in the country, as well as its current status. It will then move on to the specific context of English medium tertiary institutions in the U.A.E., with a section on key English language exams and the English language foundation programs within these institutions, and finally to a section on the vocabulary teaching and learning that was happening inside one of these programs that inspired and set the foundations for this research study.

Figure 1 Map of the United Arab Emirates (Ksamahi, 2011)



3.1 The United Arab Emirates – A brief overview

The United Arab Emirates (UAE) is a rich, complex, modern, rapidly growing country, which was founded in 1971 when Sheikh Zayed bin Sultan Al Nahyan began the process of uniting the seven emirates of Abu Dhabi, Ajman, Dubai, Fujairah, Ras al-Khaimah, Sharjah and Umm al-Quwain. It covers a geographical area of roughly 83,600 km² and is the 114th largest country in the world.

However, it has the 7th largest oil reserves in the world (CIA, 2015) as well as the 6th largest natural gas reserves, which have provided the vast majority of the wealth for the country. Abu Dhabi is the largest and richest of the seven emirates, with the most substantial oil and gas reserves, but Dubai is the most populous city and is the most well-known because of its growth as a regional tourism and business hub. The UAE is part of the larger entity of the Gulf

Cooperation Council (GCC), which was founded in 1981 in Abu Dhabi. The GCC consists of Bahrain, Kuwait, Oman, Saudi Arabia, Qatar and the UAE.

According to the World Bank, the total population in United Arab Emirates has grown from 0.1 million in 1960 to 9.5 million people in 2014, increasing some 10,400% during roughly the last 50 years. This increase has mainly been the result of immigration, and foreigners represent somewhere around 88% of the population while the other 12% of Emirati nationals number slightly over 1 million (Snoj, 2015). This has created a society in which the local Emiratis are greatly outnumbered by a combination of primarily Southeast and East Asians, Arabs and Westerners, and where the most visible culture is not always the local one (Randall & Samimi, 2010). This corresponds somewhat to the GCC as a whole, in which in 1975, foreigners represented only 10% of the overall population, but in which, by 2011, that figure had more than quadrupled to 43% (Fargues & Shah, 2012). This trend is even more pronounced in the UAE.

3.2 Early British and English language influences in the UAE

While Arabic is the only language mentioned in the country's constitution, the only official language in government offices, the language of the majority religion, Islam, and the first language of a large percentage of the residents of the U.A.E., English has long played a role in the country because of historical links to Britain, the multicultural nature of the major cities of Dubai and Abu Dhabi and the important pro-American sentiment and trade links. Boyle (2012) reports that English is used as an acrolectal lingua franca in the country, which can be seen

by its omnipresent use in airports, shopping malls, and other shops and the fact that it is surprisingly easy to survive in the country without knowing a single word of Arabic.

The area where the UAE is located, previously known as the Pirate Coast, the Trucial Sheikdoms and the Trucial States (Al-Fahim, 1995), was under British influence for almost 150 years starting in 1820 when the British came to the area to protect their trade routes to India (Boyle, 2012), signing a number of treaties with the sheikhs who controlled the coastal areas on the western side of the Gulf and continuing until 1968 when the British began to withdraw all military forces east of the Suez Canal. However, while the British were in the region, the actual contact between the British colonial authorities and the Arab population of the Trucial States was very limited (Boyle, 2012). As such, from the early 1800's to the middle of the 20th century, there was a limited awareness and some use of English, but this was confined primarily to those with direct contact with the British along the coast.

The British policy of keeping the Trucial States isolated changed as oil companies began to explore in the region in the early parts of the 20th century. In 1937, the ruler of Dubai signed the first oil concession in the Trucial States (Heard-Bey, 1996). Roughly 20 years later, the first major oil discovery was made in Abu Dhabi, and some 8 years after that in Dubai. The first cargo of crude oil was exported from Abu Dhabi in 1962, and from Dubai in 1969.

As oil revenues increased, the ruler of Abu Dhabi, Sheikh Zayed bin Sultan Al Nahyan, undertook a massive construction program, building schools, housing, hospitals and roads. These revenues also enabled the employment of large numbers of residents as the indigenous people of the region found jobs as cooks, drivers and watchmen and started to learn English (Boyle, 2012). Additionally, around this time, because of the new fiscal resources available because the economy of the UAE developed quickly and there were significant developments in the country's infrastructure, with electricity coming in 1967 (Al-Fahim, 1995). This necessitated a vast supply of equipment, housing and, of course, a huge influx of foreigners as the workforce to complete the many infrastructure and other construction projects. This growth has continued even up until the current day.

3.3 A brief history of primary and secondary education in the UAE

Back in 1953, a Kuwaiti educational mission set up the Al Qassima School, which became the first school in Sharjah, one of the wealthiest schools in the region. This was the first formal academic year in what would become the UAE (Raddawi & Meslem, 2015). In Abu Dhabi, the first school, which consisted of six rooms, was only built in 1958 and started with only 2 teachers and 80 students (Khateeb, 2016). As of 1962, there were barely 20 schools in the UAE, in which less than 4000 primarily male students studied (MoE, n.d.). In the following years, a number of schools were built across the UAE with funding mostly from Kuwait (Davidson C. , 2008), but also from Qatar, Bahrain, Egypt and Saudi Arabia (The Sheikh Saud Bin Saqr Al Qasimi Foundation for Policy Research,

2012). These schools typically utilized the texts and curricula of the sponsoring country and were staffed with teachers from these countries. The most significant model in the UAE's early educational system ended up being the Egyptian model, likely due to the large number of Egyptian teachers that were working in the UAE at the time.

Because of this, and because of the presence of Egyptian educational advisors in most of the emirates, the dominant teaching style came to reflect that of Egypt and the larger Middle East in which students were lectured and expected to memorize facts (The Sheikh Saud Bin Saqr Al Qasimi Foundation for Policy Research, 2012). This has had a lasting effect in many areas of the country, although now the current trend is moving towards more Western based systems, with American and British curricula being popular in many parts of the country.

Despite these early educational developments, by the time the country was founded in 1971, there were still relatively few schools, no institutions of higher education and the majority of the population was still illiterate. Around this time, a number of English-medium, western-leaning schools were established, including the American School of Dubai (1966), the British School of Al Khubairat (1968), and the American Community School of Abu Dhabi (1972). However, these schools were not typical for the country, kept to an American or British curriculum, and were largely for the children of expatriates working in the region. There were also a small number of local male students who attended these international institutions.

For the majority of the schools in the UAE, however, the regulating and guiding body lay in the hands of the newly formed government. In 1972, the UAE Ministry of Education (MoE) was established and began work on making the varied mix of schools and curricula more uniform with Arabic as the dominant language of instruction and with gender-segregated classrooms. The Ministry of Education also made sure that government schools were free to attend, and unlike the past, both male and female students were educated. Standardization gradually increased, and by 1985, the project to create an Emirati curriculum had gathered momentum (The Sheikh Saud Bin Saqr Al Qasimi Foundation for Policy Research, 2012). At that point, education became compulsory for all children up through grade 12, with four tiers of education: kindergarten (KG1-KG2), elementary (Grades 1-5), preparatory (Grades 6-9) and secondary (Grades 10-12). From that time forward, the UAE Ministry of Education has continued to oversee education in all emirates except Abu Dhabi, where the Abu Dhabi Educational Council (ADEC) functions similarly.

Due to substantial investments and the intense focus on education, by 2000, 88% of the population was classified as literate, up from 25% in 1972 (Thomas, 2012), a remarkable feat given the relatively short time period. As the population grew, these successes continued with the development of numerous public and private schools throughout the seven emirates, though the wealthier emirates of Abu Dhabi and Dubai saw the most noticeable growth and investments in these areas.

3.4 Primary and secondary education today in the UAE

The general educational environment in the UAE is dramatically different now and English plays a major role both in private and government (public) primary and secondary schools. There is a great range in terms of quality in both private and government schools in the UAE. The private schools also cover a wide range of curricula (UAE Ministry of Education, UK, US, French, Indian, Pakistani, Filipino, etc.) and are largely for-profit schools (in Abu Dhabi only 12% of private schools are not for profit; whereas in Dubai 21% are non-profit) (The Sheikh Saud bin Saqr Al Qasimi Foundation for Policy Research, 2015). Private schools are not only for expatriates, but are becoming increasingly popular for Emirati families who are looking for a different educational model or are dissatisfied with the quality of government schools. Indeed, almost 35% of Emiratis are attending private schools (Pennington, 2015), with English being a major draw for many of these schools. This leaves the majority of Emiratis attending government schools, which vary considerably in quality and facilities.

Perhaps surprisingly, the UAE now has the highest number of English- language international schools in the world (National, 2015) with 511 schools. This is astonishing when compared to the next country on the list, China, which has 480 international schools and a population that is more than 150 times larger (1.37 billion versus 9.1 million) (World Bank, 2015). In Abu Dhabi and Dubai alone, the private K-12 educational sector is valued at 1.4 billion USD annually (Moujaes,

Hoteit, & Hiltunen, 2011) showing that private education, typically with an English emphasis, is no small business.

Abu Dhabi, the richest and physically largest of the emirates, is home to 186 private schools for about 236,000 students. About 24% are Emiratis (National Staff, 2016) and the number is growing quickly at a rate of about 5% a year. For government schools, the Abu Dhabi Educational Council adopted its New School Model in 2010 and employed thousands of native English speaking teachers in grades KG-3 with the goal of having a native English speaker in every class in the emirate of Abu Dhabi (Constantine, 2010). In effect, the majority of the state schools in Abu Dhabi have adopted bilingual models (Gallagher, 2011) where English is taught alongside Arabic. This means that many students are now starting to learn English at a much earlier age. While this program has now expanded to the upper grades, and some similar programs exist in Dubai, some of the smaller and less wealthy emirates have not made the same strides in government schools. Increasingly, Emirati families are sending their children to private schools, which vary across the seven emirates.

As such, it should certainly be emphasized that there is no homogenous primary and secondary educational experience in the UAE; students may emerge from private schools fully fluent in English and ready to proceed to an English medium education or with a very basic grasp of the language requiring extensive work to continue on with further studies.

3.5 Higher education in the UAE

As might be expected, higher education is even newer in the UAE, with correspondingly new infrastructure and systems. There are more than 100 providers and more than 140,000 students in higher education (QAA, 2017). The first tertiary institution, the federally run, English-medium United Arab Emirates University (UAEU) was founded in 1976, five years after the birth of the country. Two other publically funded federal institutions of higher learning, the Higher Colleges of Technology and Zayed University, both of which are also English-medium institutions, were opened even more recently, in 1988 and 1998 respectively (Embassy of the UAE, 2011).

There have also been major developments for both private and semi-private tertiary institutions over the past several decades as the UAE strives to move to a knowledge-driven economy. In addition to the three federal universities, there are also a number of higher profile UAE-based higher education institutions that receive governmental funding like the American University of Sharjah, Khalifa University, Masdar Institute, and the Petroleum Institute; all of which have English as the medium of study. The UAE is also the largest importer of branch campuses in the world with 42 (QAA, 2017), with China (27) again coming second (C-BERT, 2016). Dubai's International Academic City (DIAC), a free zone for higher education, is home to 21 of the UAE's international branch campuses from ten countries, the largest in any one location in the world (DIAC, 2016). This type of free zone exempts the institutions operating within them from federal regulations, which has helped with the rapid growth of private higher

educational institutions. A number of the branch campuses in Dubai and Abu Dhabi include a wide range of internationally recognized institutions including New York University (NYU), the University of Wollongong, Paris-Sorbonne University, Rochester Institute of Technology, Middlesex University, and the University of Exeter among others. In fact, the role of English is so dominant in tertiary education in Dubai that as of 2008, one was unable to study full time in Arabic in the emirate (Davidson C. , 2008).

While tertiary education is a rapidly growing industry in the country, it is happening amidst serious concerns about the quality of education (Ashour & Fatima, 2016). The Statistics Center of Abu Dhabi (SCAD) reported that enrolment in higher education institutions rose by 26.8 per cent to 50,754 students in 2012-13, compared with 40,031 in 2009-10. Emiratis accounted for 77.1 per cent of students in 2012-13. Of UAE nationals in higher education in 2012-13, 63.1 per cent were women (Pennington, Emirati parents increasingly turning to private schools, 2015). There is also a growing competition for the best students and several of the universities including Khalifa University and the Petroleum Institute actually pay students a stipend to attend.

3.6 Important English language exams in the UAE

As might be expected in this English dominated higher-educational landscape, English language exams have a major role to play and essentially serve as gatekeepers to access higher education, as in many cases can be seen with the Common Educational Placement Assessment (CEPA), the Emirates

Standardized Test for English (EmSAT- English) and the International English Language Testing System (IELTS) exams. These exams also play a vital role in foundation/intensive English programs, both in terms of initial placement and moving out of these programs. In the following subsections, several of these exams will be discussed in detail, with special attention paid to the role of vocabulary in these exams.

The first of these exams is the CEPA, which was replaced by the EmSAT - English for the 2017-2018 academic year. However, since CEPA was the dominant exam for the period of this research, the focus will stay on it. The CEPA was locally developed in 2002 as a large-scale, high-stakes English placement exam and administered primarily to Emirati high school students in their final year of high school, and was used for the last time in January of 2017. Its initial function was to place students into English classes in the first year university English preparatory programs so they could develop their English sufficiently to study in an English-medium environment; however, from 2006 onwards, it turned into a much higher stakes exam as it is now also being used to determine acceptance into Higher Diploma and Bachelor's degree programs (Coombe & Davidson, 2014). The stakeholders in its creation were the National Admission and Placement Office (NAPO), in the Ministry of Higher Education and Scientific Research and the three federal tertiary institutions - the United Arab Emirates University (UAEU), the Higher Colleges of Technology (HCT), and Zayed University (ZU). Students need to score a minimum of 150 out of 211 points in order to be accepted into any of the three federal universities, and if

students score high enough on the CEPA, usually above 180, they are typically eligible to skip the first year English preparatory course entirely. All Emirati students who wish to study at one of the federal universities or who wish to receive funding from the UAE government to study abroad must take this exam (NAPO, 2012). This exam is also used at some other UAE tertiary institutions such as Khalifa University and the Petroleum Institute for placement purposes.

The CEPA English test is a two hour long exam with four parts – grammar, vocabulary, reading and writing. The vocabulary, grammar and reading questions are all in multiple-choice format and there is a 30-minute writing task. There is also a CEPA math exam that is offered to some groups of students. The English portion of the exam was shown to have a high correlation (.699 in 2007) when compared to final first semester GPA. (Rumsey, 2013). To focus specifically on the vocabulary section, there are a total of 40 vocabulary items, which for most versions of the exam were selected from the General Service List (K1 & K2: 301-2284) and from the first 5 sub lists of the Academic Word List (Al Ghazali, 2008), though this list has recently been updated (Gyovig & Lange, 2016). The current public specifications for the exam report “CEPA samples from a list of 2500 high-frequency words derived from a corpus representing all major dialects of the English language. The list has been screened to ensure that the words are culturally appropriate and useful in an academic context” (CEPA, 2014). In this regard, culturally appropriate material likely excludes references to alcohol (wine, beer), other religious terminology (church, etc.) and geographical features that do not exist in the area (e.g. pond, stream).

The importance of the exam in the country cannot be overemphasized as all the federal universities and some other institutions use this exam for placement into their programs, which can mean 1-4 semesters in this type of program or 6 months to 2 years of a student's life. It is also used to track the gradual improvement of English in the country as the specifications of the exam remain unchanged from when it was developed in 2003, which has shown an increase from an average of 150 to 166 (NAPO, 2015), which corresponds roughly to moving from CEFR A1 (low, at risk) to a high CEFR A2 (emerging proficiency) or the equivalent gain of 4 semesters of study in an intensive English program for an average student (NAPO, 2015) .

In addition to the CEPA, there are some international English language exams that are accepted by all universities and perhaps play an even more dominant role in university programs in the UAE. The two most common exams are the IELTS academic exam, which is used primarily in the British/Australian educational contexts, and to a lesser degree the U.S.-based TOEFL Internet Based Test (IBT) and Paper Based Institutional Placement (ITP) Test. A great deal has been published on these exams, so the focus here will be more on the exams in the specific context of the UAE where they have a seemingly omnipresent influence. This section will predominantly focus on the IELTS exam because, while TOEFL centers are present in the UAE and the IBT is accepted at the majority of institutions as an alternative to the IELTS, the lack of large test centers and the limited numbers of students that can take it at the same time because of technological requirements, has limited the spread of the TOEFL-IBT. From personal experience, it seems that only a relatively small number of

students take the TOEFL–IBT and ITP exams.

In regards to the IELTS, although the UAE is a relatively small country geographically and in terms of population, it is included in the list of countries included in the top 40 countries of IELTS test takers origin (IELTS, 2016).

Although specific numbers are unavailable on a country-by-country basis, more than 2.5 million people around the world took the IELTS exam in 2014, and according to the British Council in Abu Dhabi, roughly 95,000 people took the IELTS in the UAE in 2015 (personal communication). In that same year, UAE had the lowest overall band score average of these top 40 countries of origin for the academic version of the exam, the version required for university requirements. The average score in the UAE was a 4.9 average band score overall, slightly lower than Saudi Arabia, which had 5.0 overall (IELTS, 2016). This is roughly a full band lower than the global average test taker scores of 6.0 for female test takers and 5.8 for male test takers. Arabic first language speakers also fared the worst compared to any other language with an average overall band score of 5.3.

Table 8 Averages for the IELTS Academic (2015) (IELTS, 2016)

	Listening	Reading	Writing	Speaking	Overall Band Score
Average female	6.1	6.1	5.6	5.9	6.0
Average male	5.9	6.0	5.4	5.8	5.8
Average UAE	4.7	4.7	4.5	5.3	4.9

Indeed when you look at the score distribution for Emiratis provided by IELTS in

table 9, we can see that 70% of Emirati test takers in 2015 scored band 5 or lower (IELTS, 2016). Scoring an overall band 5 is the minimum entry level to pass into regular undergraduate studies for the majority of students at the federal tertiary institutions, which may explain the cluster of scores around this area. It is also important to acknowledge that this likely does not represent a true average of individual exam-takers, as many students may take the IELTS exam repeatedly (at the time of writing, I had students who had taken it 8-10 times). However, it still serves to indicate the need for improvement in English for at least some percentage of the population that is likely to be seeking access to higher education.

Table 9 IELTS overall band score distribution for UAE origin candidates (2015)

IELTS	<4	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9
UAE	5%	15%	31%	24%	12%	7%	3%	2%	1%	0%	0%	0%

3.7 English foundation programs in post-secondary institutions

As mentioned previously, the vast majority of universities in the UAE are English-medium institutions, and a sizable percentage of high school graduates do not have the requisite level of English to directly enter these institutions. To bridge this gap, almost all English-medium universities that have a high proportion of Emirati or other GCC students have some type of foundation program, often called an academic bridge program, which focuses on English, academic skills and sometimes math, science and information technology skills. These programs typically run from one semester to up to two years and most often

require a minimum score on some sort of external English exam (usually the IELTS) in order to progress onwards to regular undergraduate courses.

When the first CEPA tests were held in 2003, only 383 students in the country were ready to proceed directly to university without the need for one of these foundation programs (Swan M. , 2015). These levels improved to 11% of students by 2011 and 29% by 2015 with approximately 5000 students being able to pass directly into undergraduate studies. Wayne Jones, the director of foundations at Zayed University, described big improvements in the number of direct-entry students at Zayed University, with only 20% being able to enter directly in 2010 and, five years later, 40% being able to enter. Jones also added that the number of students placing into the lowest level of the program, which typically requires three or four semesters for successful completion, had declined from roughly 50% five years ago to about 33% in 2015 (Swan M. , 2015). Data such these demonstrate that the overall level of English seems to be increasing not just for the best students, but for the lower end of university-eligible students as well.

In spite of these quite substantial improvements, it is quite clear that as of about 2015, about 60% of university-eligible Emirati students still required at least a semester in these foundation courses to improve their English level in order to study in English at university. However, because of their substantial cost to the government and the extension of average time students spend at university, plans were made to cut these programs in 2018 (Swan M. , 2014), although in

the summer of 2017, this deadline was extended to 2021 as too few graduates were ready to go straight into the first year of university (Pennington, 2017). Clearly, these programs provide an invaluable service preparing students in English and academic skills.

While these foundation programs can vary considerably in the level of courses offered, curriculum, and materials, some things are generally consistent. These include a relatively intensive English course load- with anywhere from 14-25 hours a week of classes, typically taught by experienced expatriate English teachers with a Master's degree and at least 3 years of experience, but often more (Burkett, 2015). Most have a focus on English for Academic Purposes (EAP) to help prepare students to succeed in their further English studies, typically focusing on the four main English skills of speaking, listening, writing and reading. There is often some sort of test preparation component.

It should be mentioned that reading, one traditional source of acquiring vocabulary is not particularly a popular activity in the region. According to the 2016 Arab Reading Index, (Arab Knowledge Project, 2016) on average, Arabs read 35 hours a year. The UAE ranks fourth in the region with an average of 51 hours a year, with more time on electronic documents than printed materials. Personal experience and a number of similar anecdotes from colleagues provide reports that quite often the first books students have read in English have been graded readers in the foundation program. However, substantial efforts are being made to change this trend with the UAE government declaring 2016 the year of

reading and holding nationwide campaigns to increase the popularity of reading in the country. In fact, 100 million dirhams (about 27 million USD) have been put forward to help fund this project (Swan & Pennington, 2016).

It also bears mentioning that overall, the UAE has been an early adopter of educational technology, especially in the federal tertiary institutions. In September 2012, it launched the world's largest shift of a nation-wide education system to mobile learning (Tamer, 2014). This happened when approximately 14,000 iPads were provided to students in the three federal tertiary institutions. This presented opportunities and challenges for these students, but also opened the door to the widespread use of various apps and websites used to help teach and learn vocabulary along with a range of other English skills. Many of these students had previously been using laptops, and the switch to iPads occurred very quickly and without a great deal of planning. Despite this, the transition was executed reasonably well with a good amount of professional development and training provided.

3.8 Pre-university teaching of vocabulary in the UAE

While large parts of the UAE's primary and secondary education system are moving towards more standardized curricula, it is clear that students are undergoing a significant range of educational experiences both in the public and private sector. In government schools, students experience different curricula based on whether they are in Abu Dhabi and run by ADEC or in one of the other six emirates and organized by the Ministry of Education. Private schools have

even a wider range of options with curricula like American, British, Canadian, IB, Indian, Filipino and Pakistani (examples of school reports for Abu Dhabi listing curriculum types, number of students, percentage of Emirati students, and more can be found on the ADEC website). All of this means that there is a vast difference in the kinds of vocabulary that students acquire and the ways in which they are taught. For some students, there are some cultural restrictions on some of the vocabulary that is taught in schools and universities in the UAE, especially government ones. These restrictions are typically based on cultural or religious mores and foundation/intensive English program students and experienced faculty seem to be generally aware of many of these “haram” or forbidden topics – typically based on things that are counter to Islamic beliefs like alcohol and drugs.

As might be expected, to some degree, even before many Emirati students progress to university, they are exposed to some kind of English wordlist, often one based on frequency. In the New Model Schools in Abu Dhabi, there are specific frequency word lists used in their English classes in primary and secondary school (e.g. First 100 High Frequency Word List) (ADEC, 2012, p. 27). Furthermore, CEPA has had a word list for many years and recently revised this list of which supposedly improves upon the previous version based on the GSL and AWL. With this focus on vocabulary on the CEPA, it substantially raises the stakes and the backwash into the classroom is noticeable. As part of this, grade 12 teachers receive two days of specialized training on the purpose of the CEPA

and how to integrate the skills needed for the CEPA into their classroom, which likely includes emphasis on the vocabulary section of the exam (ADEC, 2014).

3.9 Vocabulary teaching in university foundation programs in the UAE

Due to disparities in students' educational experiences, a lack of English vocabulary acquired from independent reading, and ultimately for a majority of students, a lack of the requisite proficiency in academic English for university study, we can see how vocabulary acquisition is an essential requirement for foundation program students. While specific data on how vocabulary is taught is not publically available for the majority of university foundation programs, some information is available in a small number of research articles for several of the larger institutions, including Zayed University, an institution that the author worked at and one that inspired this research topic. The specific system that was used in the Academic Bridge Program (ABP) at Zayed University will be covered in some detail to both illustrate one well-developed approach to using a vocabulary list and to show the context and lexical curriculum that spurred part of the my initial interest in the topic. As the researcher had direct experience working with the system discussed, later in this section, some initial reflections and opinions on this project will be provided.

Starting in 2008, a rather ambitious vocabulary project was developed at Zayed University over the course of roughly two to three years. The project involved Academic Bridge Program instructors creating a variety of self-study materials for students to build their vocabulary. It was developed primarily because the

students “in spite of having studied English for years at government high schools, [were] faced with the issue of entering foundation or bridge programs at tertiary institutions with vocabularies significantly smaller than 5,000 word families (Davidson, Atkinson, & Spring, 2011, p. 29).” Without having a minimum knowledge of 5,000 word families, students are effectively unable to read university level coursebooks in English. From personal observation and anecdotes from colleagues, this is certainly the case as a large percentage of students rely on photocopies of PowerPoint presentations that provide simplified content of other coursebooks and required reading materials. Because of this well-understood need, a resource originally called Zayed University Vocabulary Lab (ZUVL) was created; it was later rebranded Zayed University Vocabulary Lesson.

It was acknowledged that while pleasure reading is seen to be one of the best ways to expose students to new vocabulary, the student population in the region is not generally one that engages in much pleasure reading in any language. As such, it seemed appropriate to focus on explicitly teaching the most frequent vocabulary to help establish a core lexicon so that students could access a greater variety of texts, rather than focusing on strategies to infer the meaning of unknown words from sentences.

To achieve this goal, the British National Corpus (BNC) was selected as the foundation for the project word lists because of its underlying frequency component, which at the time provided “greater validity than other lists of the

same type“ (Davidson, Atkinson, & Spring, 2011, p. 30), and presumably because of its open availability at the time. Because Nation’s research from 1990 stated that ESL students needed a vocabulary of 3,000 word families in order to build a working reading lexicon, the first 3000 words (lemmas) of the BNC were combined together with the Academic Word List (Davidson, Atkinson, & Spring, 2011, p. 31), to create an institutional word list. While some words like *bar*, *pub* and *sex* were removed from the list because they were culturally inappropriate, the majority of the list was used as given. At the time, there were eight levels in the ABP, each consisting of half a semester or roughly 7-8 weeks of class and it was decided that each level of the course would have 250 words to revise or learn, which meant approximately 50 words a week; however, this was later revised when the program shifted to semester length courses so that each semester length course covered 500 lexical units per semester.

The project itself consisted of four sections: diagnostic tests, lessons, review tests and WIBs (Word Information Books), and instructors were given partial or full reassignment time to develop materials (Davidson, Atkinson, & Spring, 2011, p. 31). At the start of a semester length course, students were given printed booklets with 50 lessons and the companion WIBs with the word information (see below) to utilize for source material. Students were expected to independently complete one lesson a day, five days a week.

The first of the two main resources that students were given was the Word Information Books (WIBs). This consisted of a definition in English for each word

along with an Arabic translation, different word forms, synonyms and antonyms, irregular past tense verb forms and common collocations. It is important to emphasize that only one definition for each word was provided, which was always the first one included in the dictionary. Thus, each WIB consisted of an introduction, some general reference material and roughly 50 pages of lists with ten words and their related information on each page. In total, there were some 200 pages of word information that students could be exposed to if they started at the lowest level and studied for the full two years in the foundation program. An example of a sample page is provided below.

Figure 2 Zayed University Word Information Book (WIB) (Zayed University, 2009)

BNC Words 1821-1830

Word	POS	Arabic translation	Definition	Synonym	Antonym	Collocation	Grammatical Information				Other Important Information
							Nouns		Verbs		
							Count/ Uncountable	Plural	3 rd p. sing. spml past. -ing form	Transitive/ Intransitive	
passage	n	ممر	a long, narrow space that connects one place to another	passageway, hall			C	passages			
illustrate	v	يوضح	to give more information or examples to explain or prove something	show, demonstrate					illustrates illustrated illustrating	T	
pay	n	أجر	the money you receive from your employer for doing your job	wages, salary			U				
ride	v	يركب	to travel by sitting on a horse, bicycle, or motorcycle and controlling it			ride a horse/ bicycle/ motorbike			rides rode riding	T, I	
foundation	n	قاعدة	the idea or principle that something is based on				C	foundations			
restaurant	n	مطعم	a place where you can buy and eat a meal				C	restaurants			
vital	adj	أساسي	necessary	necessary, essential, important	inessential, unimportant	a vital part of					
alternative	adj	البديل	an alternative plan or method is one that you can use if you do not want to use another one	different							
burn	v	يحترق	to destroy something with fire, or to be destroyed by fire	be on fire					burns burned/burnt burning	T, I	
map	n	خريطة	a picture that shows where countries, towns, roads, rivers, etc are				C	maps			

The second resource was the lesson books, of which a total of eight were made; one for each set of 250 words. These were considerably longer than the WIBs. The lessons for each set of ten words were typically about four pages in length and were organized into three general categories: word meaning, form and use

as Nation's three general aspects of what is involved in knowing a word (Nation, 2013, p. 132), with at least two activities for each aspect. According to Davidson et al. (2011), each of the ten words appeared at least six times in the lesson to adhere to research by Saragi, Nation and Meister (1978) and Rott (1999) that suggested that this was the minimum exposure needed in order for a new word to be learned. Also, a number of different activities, pictures and exercises were used to increase variety. The lessons began with a list of words to be used and then progressed to meaning-based activities where students encountered the words in a variety of contexts. The words were typically focused on an individual lemma (one part of speech) and are generally unrelated in any way, except for frequency order in the BNC. In the following pages, the different parts of one such lesson are provided as a concrete example of how the list was utilized to extend students' knowledge of the words on the list. The following examples are from 1821-1830 on the BNC, the final WIB and lesson book in the series.

Figure 3 ZUVL Part 1- Focus on Meaning – Activity 1 (Zayed University, 2009)

passage	illustrate	pay	ride	foundation
restaurant	vital	alternative	burn	map

Focus on Meaning

Activity 1 Complete the paragraph using today's words.

My favourite _____1 is Ali's Kebab House in Istanbul. As soon as I receive my _____2 at the end of the month, I get on my bicycle and _____3 straight there! It serves the best food in the city. Last year, it _____4 down in a fire but they reopened it this year, and now it's even better than what it was before! A narrow _____5 inside the restaurant takes you to a beautiful garden. Here, you can enjoy a variety of vegetable and meat dishes, which are the _____6 of Turkish cooking. If you don't like Turkish food, you can find _____7 restaurants that serve other types of food. To _____8, there are French, Chinese, and Lebanese restaurants on the same street. However, if you are new to Istanbul, it is _____9 that you get a good _____10 of the city, which shows the locations of all the restaurants and the best routes to find them. Istanbul is a very big city and so it is very easy to get lost!

Clearly, there are enough context and sentence clues so that there is clearly only one correct answer. There is quite a range of lexis with verbs, nouns and adjectives with several that could be used as different parts of speech – pay, ride, burn. In order to provide exposure to a broad range of text types, the words were actually included in various texts, such as emails, dialogues, advertisements, blog entries or other text formats.

In the next part of the Focus on Meaning section, students were typically asked to match the ten words with definitions and then to put each into a discrete sentence based on context clues. As mentioned earlier, in order not to overwhelm students with polysemy, only one definition per word was provided and only one form of the word was focused upon.

Figure 4 ZUVL Part 1- Focus on Meaning – Activity 2,3 (Zayed University, 2009)

Activity 2 Match today's words with their definitions.

- | | |
|----------------------|--|
| _____ 1. passage | A. a place where you can buy a meal and eat |
| _____ 2. illustrate | B. to destroy something with fire, or to be destroyed by fire |
| _____ 3. pay | C. the idea or principle that something is based on |
| _____ 4. ride | D. necessary |
| _____ 5. foundation | E. a long, narrow space that connects one place to another |
| _____ 6. restaurant | F. the money you receive from your employer for doing your job |
| _____ 7. vital | G. a drawing that shows where countries, towns, roads, etc. are |
| _____ 8. alternative | H. to give more information or examples to explain something |
| _____ 9. burn | I. to travel by sitting on a horse, bicycle, or motorcycle |
| _____ 10. map | J. a different plan or method you can use instead of another one |

Activity 3 Complete each sentence with one of today's words.

1. As soon as she received her _____, she went shopping.
2. It is _____ that you drink water every day.
3. She learnt how to _____ a horse when she was five.
4. Forest fires can _____ large areas if they spread.
5. We eat in a _____ two or three times a week.
6. These pictures _____ the extent of the problem.
7. We didn't know how to get there so we looked at a _____.
8. This long _____ takes you to the library.
9. Communication is the _____ of any marriage.
10. I don't like this idea. Can you think of an _____ one?

Another meaning-based activity included in this specific unit was a basic meaning check that also gave another opportunity for students to encounter the words.

Figure 5 ZUVL Part 1- Focus on Meaning – Activity 4 (Zayed University, 2009)

Activity 4 Is the sentence TRUE or FALSE? Tick T for TRUE and F for FALSE.

- | | | |
|--|----------------------------|----------------------------|
| 1. A passage is a room in a house. | <input type="checkbox"/> T | <input type="checkbox"/> F |
| 2. If something is vital, you don't need to do it. | <input type="checkbox"/> T | <input type="checkbox"/> F |
| 3. People can eat and drink in a restaurant. | <input type="checkbox"/> T | <input type="checkbox"/> F |
| 4. You can ride a camel. | <input type="checkbox"/> T | <input type="checkbox"/> F |
| 5. The foundation of something is not important. | <input type="checkbox"/> T | <input type="checkbox"/> F |
| 6. To illustrate means to show or explain something. | <input type="checkbox"/> T | <input type="checkbox"/> F |
| 7. Your house can burn down in a fire. | <input type="checkbox"/> T | <input type="checkbox"/> F |
| 8. An alternative idea is a different idea. | <input type="checkbox"/> T | <input type="checkbox"/> F |
| 9. Pay is the money you give to your employer. | <input type="checkbox"/> T | <input type="checkbox"/> F |
| 10. You can find your way by using a map. | <input type="checkbox"/> T | <input type="checkbox"/> F |

The third section had students focusing on form, which primarily dealt with spelling, a major difficulty for many Arabic L1 students. This is especially true of vowels and consonant clusters, which do not exist in the same fashion in Arabic. One example of this is the “correct the spelling” activity below. Other variations on this include unscrambling words, completing words when provided with the first two letters, matching two halves of the words together, or simply writing the words out in alphabetical order.

Figure 6 ZUVL Part 2 - Focus on Form – Activity 5 (Zayed University, 2009)

Focus on Form

Activity 5 Correct the spelling of the words below. Write the word on the line.

- | | |
|--------------------|---------------------|
| 1. altenatif _____ | 6. pessege _____ |
| 2. mep _____ | 7. ilastrat _____ |
| 3. raide _____ | 8. pei _____ |
| 4. vaitel _____ | 9. faundetion _____ |
| 5. restorent _____ | 10. burne _____ |

The last section was the Focus on Usage section where activities worked with different word forms, word order in sentences, appropriate collocations and correct verb tenses among other activities. Examples of this are illustrated below:

Figure 7 ZUVL Part 3 - Focus on Usage – Activity 7, 8a (Zayed University, 2009)

Focus on Usage

Activity 7 Choose the word that best completes each sentence.

1. She didn't accept the job offer because the (**pay / pays**) was too low.
2. Trust is a strong (**foundation / founded**) for any relationship.
3. It is (**vital / vitals**) that you wear your seatbelt in the car.
4. There are many other (**restaurant / restaurants**) in Dubai.
5. He got on his horse and (**rides / rode**) towards the desert.
6. Have you got a (**map / mapped**) of the city centre?
7. There are many other (**alternative / alternatives**) newspapers.
8. Can you (**illustrate / illustrating**) this by giving an example?
9. He has (**burns / burnt**) all the photographs.
10. Do you know where these (**passage / passages**) take you?

Activity 8a Write the correct form of the bolded word for each sentence.

ride

1. Ann has never _____ a horse before.
2. Peter _____ his bicycle along the Corniche last night.
3. Why does she want to learn how to _____ a motorbike?

Figure 8 ZUVL Part 3 - Focus on Usage – Activity 8b (Zayed University, 2009)

Activity 8b Put each group of words in the correct order.

1. plans / alternative / make _____
2. map / a / road / look at _____
3. foundation / a / strong / have _____
4. increase / an / pay / in _____
5. restaurant / go / a / to _____
6. part / a / of / vital / life _____
7. down / passage / a / walk _____

All of the examples and activities were written to be culturally appropriate and included examples that might be within the students general knowledge or experience, with examples of cities and countries that the students were likely to be familiar with (Istanbul, Dubai, etc.) They also progress and build on the

vocabulary that has previously been learned so there is some recycling, although it is not comprehensive.

It was clear that having a set vocabulary list provided a wide range of advantages, especially when related to teaching, curriculum and assessment. The first point was that these lists presented a very clear reference source and that something was either included on the list or it was not. Therefore, what needed to be learned was very transparent for both students and teachers. These lists were also very useful for choosing or developing curricular materials that ensured effective recycling of the lexis and provided guidance on specific language points to focus on and reinforce at different levels. Finally, it also meant that assessments could be graded in terms of vocabulary, with the reading and listening texts becoming substantially more difficult lexically as the course levels increased. Test developers could easily scan their texts and simplify the lexis in them as needed.

I first became familiar with the ZUVL project when I started working as a lecturer in the Academic Bridge Program at Zayed University in 2009. It was immediately clear that the ZUVLs represented a considerable resource and a substantial amount of work. Over the next several years, the overarching role of the list in day-to-day teaching, curriculum and assessment in the program were part of what led me to become more deeply interested in the topic of word lists and how they are used in these programs (around 2004 I developed a word list and a much simpler set of resources based partially on an early version of the Cobuild

Corpus combined with a number of other lists publically available at the time). However, as might be expected, there were some significant concerns with the list itself and the way it had been implemented, some of which were mentioned as recommendations by Davidson, Atkinson and Spring (2011). These recommendations included (p.33):

1. Pilot the project and evaluate it to make it more effective before it was rolled out throughout all levels of the program.
2. Select some words from the BNC lists rather than just using all of the words on the list. By testing to see which words the majority of students already knew, words could be removed or put at lower levels.
3. Evaluate which of the activity types are most efficient for actually learning vocabulary.
4. Try to individualize student learning rather than have a lock step approach for all students. This could involve doing a pre-test at the start of a course and then focusing only on the words students didn't know rather than spending time on words that they already knew. In an online program, this feature could be managed relatively easily.
5. Encourage the use of the full interactive potential of the Internet rather than just reproducing a web version of the paper materials, as plans were being made to put the ZUVL materials online.

I agree with most of their suggestions, and had some additional concerns with a number of issues including:

- the choice of the BNC,
- the pacing of the planned vocabulary acquisition without any real regular focus on recycling,
- the focus on a single word form and a single definition,
- the design of a number of the materials developed to help students acquire the lexis, and
- concerns about whether this type of non-tracked, fully self-study resource would ever be successful for the majority of this profile of students.

While space does not allow for a full analysis and criticism of all these issues, it is important to at least briefly look at the choice of the BNC, as this was the foundation for the project. While it was clear that the BNC had many advantages and was a great resource for the late 20th century, with the last entry being added in 1994 (Burnard, 2002), by 2013, it no longer seemed to be the best option, when a number of newer lists had been released including two New General Service Lists (Browne, Culligan, & Phillips, 2013) (Brezina & Gablasova, Is there a Core General Vocabulary? Introducing the New General Service List, 2015), a revised Academic Word List (Gardner & Davies, 2013) and the Oxford 3000, which had been released several years earlier. The rapid changes in vocabulary related to technology over the past 20+ years, which were not reflected in vocabulary in the list, and the exclusively British frequency focus both seemed to contribute to a list that seemed less than ideal for the context of the UAE.

Another key point to touch on is the fact that while this considerable resource was available to all students and teachers, it became apparent that it was not being utilized in any consistent fashion, nor was there direction to do so. In most classes, students were encouraged to use it independently; however, very few seemed to do so. Some teachers used parts of it regularly in class, whereas others ignored it completely. When the students studied the ZUVLs, they typically only studied the WIBs and even then, often just the English definition and Arabic translation. Therefore, while they may have understood the basic English and Arabic meanings and were able to match the word with a definition, they typically

had a great deal of difficulty differentiating between different word forms and even more difficulty using the words productively in their writing or speaking.

Thus, with this list and the extensive self-study resources as a starting point, this raised a number of questions about what other programs in the region might be doing to choose or develop effective vocabulary lists and how these lists are then implemented to be as useful as possible for students.

3.10 Conclusion

In summary, the UAE is not an easily definable place. Although the country is less than 50 years old, during the time since it was founded, the population has grown almost 10,000%, largely because of immigration. Although Arabic is the national language, the reality is that English and other languages are more prevalent in much of the society as the number of foreigners as of 2015 represented 88% of the population. The UAE also has more private schools teaching in English than any other country in the world, and is the largest importer of branch university campuses in the world. As such, clearly English has an important place in the educational landscape in the country, and even in the month before the submission of this thesis, there were even more calls for the improvement of English education in government schools across the country (AINowais, 2017).

However, despite all of the seemingly ultra-modern infrastructure and huge investments in education, it is important to remember that schools and higher

education in the country are relatively new on the grand scheme, with the first school in the UAE being built in 1953 and the first university in 1976.

Correspondingly, many of today's Emirati students had grandparents who were likely to be illiterate as in 1972, the year after the country was founded, only 25% of the population was illiterate. There is also a wide range of curriculums being offered in the country, making any sort of generalization near impossible.

In this context, the importance of English, and indeed of English vocabulary is clear- as seen in exams for students leaving university, the remedial foundation year, and indeed in the one institution where I worked, the creation of monumental projects devoted towards vocabulary acquisition, like the ZUVLs. With all of this, the importance of vocabulary acquisition and of lists to guide them seems clear.

Chapter 4: Methods and Methodology

Before stepping into issues of method and methodology, it seems important to first look at the overall guiding philosophical paradigm of this study, because, as Guba & Lincoln state (1994:105), “Questions of method are secondary to questions of paradigm, which we define as the basic belief system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways.”

4.1 Interpretive paradigm

The primary theoretical focus of this research study is on the meaning and reality that people have constructed, which fits best under what has been called the interpretive paradigm. In this paradigm, we recognize that the social realm is not necessarily subject to the same methods of investigation as the natural world. Merriam (1998) suggests that the five general types of interpretive research commonly found in education (ethnography, phenomenology, case study, grounded theory and basic qualitative study) all share some essential characteristics (p.11):

- the goal of eliciting understanding and meaning;
- the researcher as primary instrument of data collection and analysis;
- the use of fieldwork;
- an inductive orientation to analysis; and
- findings that are richly descriptive.

By aiming to understand how vocabulary lists are being used in this context and by examining the perceptions of vocabulary teaching and learning, the objective

coincides with the interpretive paradigm. The specific details of how this will be done will follow later in this chapter.

4.2 Ontological stance of relativism

Moving onto the ontology of the study, which can be described as the nature of reality (Cohen, Manion, & Morrison, 2011), this study ascribes to the ontological stance of relativism, which asserts that points of view have no absolute truth or validity, and that each has only relative or subjective value. This seems most appropriate to address the research question of exactly how frequency lists are being used as each “reality” and context is individually constructed and operates according in its own fashion depending on a variety of underlying factors including age, size, and resources, among others. Clearly this follows the understanding that individuals are able to construct their own social realities (Gage, 1989) and with the understanding following the belief that multiple realities exist (Crotty, 1998).

4.3 Multiple case study design

Following on this, in terms of method, this research study used a case study design, specifically that of a multiple case study, the nature of which will be discussed in more detail later in this section. Merriam (1998) tells us that a case study design “is employed to gain an in-depth understanding of the situation and meaning for those involved” (19). Lin (2014) suggests that for “how” and “why” questions, the case study has a distinct advantage. Merriam also says that case studies can be characterized as being peculiaristic, descriptive and heuristic. By

this, she means that they should focus on a single situation, event, program or phenomenon, that the end product of the study is a rich, “thick” description, and that they illuminate the reader’s understanding of the phenomenon under study. Creswell (2007) explains that a case study is an in-depth exploration of a bounded system based on extensive data collection. One of the most prominent advocates of case study research, Yin, additionally poses (2014:18) that “a case study investigates a contemporary phenomenon (“the case”) in its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”. These three areas are critical distinctions in the multiple cases of this study – the focus on a bounded system (or systems), the focus on a contemporary phenomenon and the focus on a real-life context.

The focus on a bounded system (or systems) is important not only to look at the interactions within that system, but also to limit the scope of the study. Clearly, the interplay between different aspects of an educational system, such as that between curriculum designers, assessment creators and teachers affects each of the individual aspects. In terms of bounded systems (because of the different cases), clearly these will be bounded both temporally over the two years 2015-16 and within a certain part of the tertiary institutions, specifically, the foundation/intensive English programs within these institutions.

Likewise, the distinction of a contemporary phenomenon in this case study helps focus on the current use of vocabulary lists rather than a historical survey of how they have been used in the past, which might instead focus on examining trends

in the changes of use of lists or a change in actual lists used. While historical information about how vocabulary lists have (or have not) been used in individual programs may certainly help inform an understanding of current practices, and may be briefly touched upon for this purpose, this is by no means one of the key elements of this study – rather, it is more limited to possibly help illuminate why current practices regarding vocabulary exist.

The additional focus on a real life context is again one of the key aspects in this case study, especially to focus on a relatively unique context like the UAE, which may be similar to some other GCC countries, but is decidedly different than the majority of these types of programs in countries like the USA, the U.K. or Australia where the official language is English and where students have access to a great deal of spoken and written English all around them outside the classroom. Thus, students in this UAE context might not be able to acquire frequent or other specialized vocabulary in a similar fashion. It is also different from many other countries where there are many nationals teaching English along with foreign teachers who might also serve as more accessible models and translators when needed (for more on this see the Context section).

Additionally, a real-life context is especially important in the case of this research because while a great deal of work has been done on creating vocabulary lists (Brezina & Gablasova, 2015; Browne, Culligan, & Phillips, 2013; Coxhead, 2000), refining the criteria (Nation, 2016), and suggesting how they can be used (Nation, 2016), relatively little has been done on how they are actually put into

practice, especially in technology-rich teaching and learning environments, such as in the federal tertiary institutions in the United Arab Emirates, in which all students as of 2011 were mandated to have iPads or more recently to bring their own device. The aim of choosing a case study design for this context is to provide a deeper level of detail and understanding that allows for a more thorough analysis of the complex and particularistic nature of this particular phenomenon.

Stake (2008:443), notes that the case study “is defined by interest in an individual case, not by the methods of inquiry used”, and again, this is a key point here in that a variety of data collection methods can be used to focus on a single case or cases. As such, this study aims to be exploratory, descriptive and explanatory. As Nunan (1992:79) states, it is hoped that at least to some degree that in this case, the “insights yielded by case studies can be put to immediate use for a variety of purposes including staff development, within institution feedback, formative evaluation and educational policy making” will be applicable.

As mentioned briefly above, rather than focus on a single case study, in this study a number of related cases will be studied. Such studies may be referred to by a number of names such as collective case studies, cross-case, multi-case or multisite studies or comparative case studies (Merriam, 1998). For the purpose of this research study, we will employ the term “multiple-case” design. A multiple – case design has been employed because it allows a broader perspective than a single case and hopefully will shed light on some common issues that arise in the

use of these lists. Campbell (1975:180) suggests that having two or more case studies, when used for comparative purposes, is worth more double the amount of a single case. Miles & Huberman (1994: 29) also point out that “by looking at a range of similar and contrasting cases, we can understand a single case finding, grounding it by specifying how and where and, if possible, why it carries on as it does. We can strengthen the precision, the validity, and the stability of the findings.”

Stenhouse (1988:49) also suggests that the case study method becomes even more valuable when a number of them can be combined around one phenomenon in order to make generalizations. This is certainly true in this case as while these institutions may fit into the same general category of tertiary educational institutions in the UAE, they also have a number of distinguishing features, including the age of program, size, location, student profile, financial and teacher resources, and teacher experience, among others. Thus, it is hoped that by presenting several cases, we will be able to offer a variety of perspectives as to how this topic is dealt with as well as hopefully make some generalizations.

The multiple case study methodology was chosen to examine the use of these lists in their context and to examine in depth how they are used in a holistic rather than reductionist fashion. This is to some degree, a follow up on exploratory research that was done in by the author on the subject of the use of these lists in foundation/ intensive English around the world (Burkett, 2015), which was done to try to illuminate which vocabulary lists were used and in

general how they were used. Rather than focus on the methodology behind the construction of these lists, or the theories and suggestions on how and why they should be used, this research focuses on their practical use by real people in real situations in an attempt to illuminate how these lists are used practically in these specific contexts. The overall aim is not to qualify one approach as the “best” approach, but rather to offer a window into how different programs in a similar context deal with this subject.

4.3.1 Defining and bounding the cases

In any case study, two essential steps are to clearly define the “case” or “cases” and to establish the boundaries for the study. Yin (2014) warns about the difficulty of defining some programs in case studies, academic or otherwise, because of possible variations in program definition based on the roles of various participants or because of aspects of the program that may have existed prior to the official designation of the program, but which may have an impact nonetheless. As such, it is clearly important to provide a clear definition of what will be studied in each case and how this will be bounded both in terms of the program within the institution and in terms of the time span studied.

In terms of the program studied in each case, this will focus on the intensive English/ foundation programs in the tertiary educational institutions in the United Arab Emirates. These programs typically fit into one of a variety of general categories, such as a foundation program, a “bridging” program or an intensive English program, each of which may have slightly different connotations or

assumptions. Within these categories, programs of this type may have a variety of names such as an English Language Center, and Academic Bridge Program or simply a Foundation program depending on what the program contains and who has been involved in naming it. However, to maintain consistency, these will henceforth be referred to as foundation (English) programs. These foundation programs typically enroll students that are moving from high school to study at an English medium university, but who lack the required level of English to commence directly in the undergraduate programs. These programs typically have a primary focus on improving academic English skills, but may also have additional foci including math, Arabic or other specialties depending upon the eventual major of the students. The typical duration for these programs is between 6 months and 2 years depending upon the initial proficiency of the student and the proficiency aims of the program. Clearly, the scope in each institution could be widened to include other parts of the institutions, as vocabulary lists are sometimes used in other courses; however, these courses will not be included in the scope of this study except to mention that this practice might exist.

Temporally, this research had a focus on the 2015-16 academic year (October 2015- June 2016) for primary data collection over the course of this study, although some follow up questions were asked in the following year. The more physical or organizational boundaries within each individual institution for each of the individual cases are of the intensive English/foundation programs themselves. Thus, to specifically define the scope of the individual case, we will

be looking specifically at the role of vocabulary lists within these foundation English programs and how these transfer to the teaching of vocabulary.

4.4 Data collection methods

There were four data collection methods: interviews, follow up emails, follow up phone conversations and document analysis. Of these, interviews represented the vast majority of the data collected and the follow up e-mails and phone conversations were used specifically to clarify information from the transcribed interviews. Information about all four of these methods will be detailed below.

4.4.1 Semi-structured Interviews

Interviews were selected as the primary form of data collection, and the most common form of interview, the person-to-person interview (Merriam, 1998) was chosen to be able to focus on one individual's opinion without possible influences by others in the group and in order not to have to worry about group dynamics or group processes. Additionally, I utilized one-to one interviews because as Cresswell (2012: 218) states, "One-on-one interviews are ideal for interviewing participants who are not hesitant to speak, who are articulate, and who can share ideas comfortably," which describes the profile of career educators I interviewed.

The format of semi-structured interviews was selected for the interviews for several reasons. While structured interviews might have allowed for more standardization and a more simplified process for the coding and analysis of data, semi-structured interviews allow for further examination of areas of interest

that may emerge, allow a more conversational and friendly approach, giving the freedom to jump ahead or back on the list of questions when suitable information emerges. Additionally, as Merriam (1998, p.74) explains, “less structured formats assume that individual respondents define the world in unique ways,” which adheres to the interpretive paradigm selected for this research. Likewise, while unstructured interviews are even more flexible, there would be the possibility of missing key questions and not specifically addressing the aims of the study.

4.4.1.1 Design of the interviews

After interviews were chosen as the primary data collection method, a draft interview was designed in order to best cover the research question and to collect key demographic data about the participants and the programs that they worked in. In order to ensure that all the relevant topics were covered and to best understand how these lists are used, and how their use at each institution has developed over time, the following topics were selected to include in the interviews (See Appendix B). These are linked to the specific interview question and where appropriate, to the related research question (RQ1/RQ2)

- basic information about the participant (Q1)
- a general description of the tertiary institutions and intensive English programs within them (while keeping the actual institutions as anonymous as possible) (Q2),
- a description of the type of English taught in the program (Q2),

- a description of the difficulties that students have with vocabulary in their context (Q3/RQ1)
- an overview of how vocabulary is dealt within the program (whether it is taught explicitly, dealt with primarily as part of a specific skill, etc.), (Q4/RQ1)
- a brief explanation of how vocabulary is assessed in the program, (Q4/RQ1)
- a description of which lists (if any) are being used and have been used along with a rationale as to why these lists have been chosen, (Q6/ RQ2)
- an explanation of the role and associated problems that frequency vocabulary lists have in regards to directing student vocabulary learning (Q7/RQ2),
- a brief chronology of how the use of these lists in the programs has developed in the past 5 years as well as how they are specifically being used in the 2015-2016 academic year, (Q8/RQ2)
- the ideal solution for vocabulary acquisition at their program, (Q9)
- thoughts about the future development of word lists (Q10)

4.4.1.2 Piloting the interviews

An initial version of the interview questions in Appendix B was drafted based on the research questions, the list of key areas listed above, and my understanding of the context, and then feedback was collected from colleagues and my advisors and then the questions were revised. After this, a single pilot interview was done

with a helpful colleague and then the interview questions were finalized. As can be seen in the final version of the interview questions in Appendix B, the questions start with basic demographic information about the interviewer and then the institution before proceeding to collect data corresponding to the research questions.

4.4.1.3 Interview schedule and locations

The ten interviews were conducted during the spring semester of 2016 ranging from February (two) to June (four), with one interview in both March and April and two in May. The schedule was primarily based on availability both of the researcher and the participants, and the interviews conducted outside of Abu Dhabi were conducted in June after the majority of regular semester classes were over. Nine of the ten interviews were conducted in person, with only one conducted by Skype.

4.4.2 Follow up e-mails and phone conversations

When some information was not clear in the transcripts of the interviews, it was necessary to try to clarify it. In order to do this, follow up e-mails and short phone conversations were utilized. This consisted of roughly two phone conversations and two emails.

4.4.3 Document Analysis

During several of the interviews, some examples of course materials, vocabulary quizzes and vocabulary supplementary materials were provided (see Figures 9-11 for an example of this). Where appropriate, these materials were analyzed in order to help provide more detailed explanations of what was discussed during the interviews. This supplemented the information discussed in the interviews.

4.5 The participants

This study focused on one set of participants, key individuals in foundation programs, typically teachers or curriculum or assessment coordinators, that have been involved in helping direct the acquisition of vocabulary for students at these institutions and who may or not be involved in the implementation of some sort of vocabulary list. Typically, but not always, these are individuals highly involved in curricular development and are often in some level of management at the institution (although this is not always the case depending on the size of the program). These individuals are critical for the purposes of the study as they are the ones who should be able to answer key questions about what approach to vocabulary acquisition exists within the program, what are some of the advantages and disadvantages to this approach, whether or not this approach has changed over time and if so, why, which list (if a specific list is used) is used and why, what are the common problems for students concerning vocabulary acquisition and what is being done to help remedy these, etc. These will be the key contact individuals at the institution and depending upon the institution and the complexity and history of the approach towards vocabulary may range from a

single individual to as many as four people; however, each interview will be conducted individually.

4.6 The role of the researcher

It is important to note and clarify from the start that the researcher is to some degree an insider in several of these contexts and was or is currently a complete member in the group being studied (Adler & Adler, 1994). While there are admittedly some potential limitations of being an insider-researcher such as a possible loss of objectivity based on the researcher's prior knowledge, the possibility of making incorrect assumptions because of prior knowledge and expectations, and role duality- researcher and teacher (Unluer, 2012), there are also a number of advantages of being an insider-researcher. Bonner and Tolhurst (2002), used their context as nurse researchers identify three primary advantages of being an insider-researcher: (1) having a greater understanding of the context being studied; (2) not altering the flow of social interaction unnaturally (3) having an established intimacy between the researcher and the participants which promotes both the telling and the judging of truth.

While these three advantages come from a nursing context, they would seem to be as applicable or nearly as applicable in an EFL context because of the following reasons. First, as a teacher/researcher in a very similar context, an insider-researcher "will undoubtedly have a better initial understanding of the social setting because they know the context.... The subtle and diffuse links between situations and events... and can assess the implications of following

particular avenues of enquiry” (Mercer, 2007, pp. 10-11), especially as the author has now worked in six similar programs in this general region. Second, as discussions of issues related to areas of concern in teaching, which include vocabulary have in my experience been quite commonplace both informally among teachers and in more formal meetings, discussing them is a seemingly normal part of the job of an English teacher, it should not seem out of place or invasive. Third, the fact that the researcher and the participants are both in the same profession, have similar professional networks and ultimately have the same teaching goals hopefully helps create an intimacy of sorts and as this is not a particularly sensitive or emotional area, the professional sharing of practices has benefits for both and hopefully encourages truthfulness if it is clear that no judgements are being made.

Additionally, being an insider-researcher offers benefits in terms of dealing with some common problems in research like getting access to different educational contexts, establishing rapport with other professionals and dealing with potential ethical concerns (Creswell, 2012). It is certainly the case, especially in the somewhat protective educational spheres of tertiary institutions in the United Arab Emirates, that gaining access to conducting research can be problematic, especially for those without personal contacts or other ways to connect; on the other hand, an insider-researcher usually knows who to talk to. Additionally, such inside knowledge often makes it easier to know the right questions to ask if one is aware of areas that might be more problematic. As such, being an insider-researcher in this type of context often offers a greater range of access (Mercer,

2007), and if one is working with colleagues or ex-colleagues, this can offer a greater sense of good-will and understanding about the issues and possible solutions for them, assuming of course that a sense of good will exists initially.

In the long run, however, some additional complications may emerge for an insider researcher during the research process or indeed afterwards as current or future expectations on the researcher may emerge as the knowledge of the area may be perceived as expertise and the researcher may be expected to reciprocate (Mercer, 2007) or do additional work. Admittedly, in this situation, the alternating insider and outsider researcher roles may provide some imbalance between the depth of information available between the individual cases as clearly contexts that one knows more intimately can be investigated more thoroughly because of the deeper understanding of the individual components of the system as well as the interplay between them. However, by utilizing research methods with clearly established stages and steps that are consistent across contexts, this will hopefully be minimized (Creswell, 2012).

4.7 Procedures

As detailed above, this study aimed to collect general information about the teaching of vocabulary with a specific focus on the use of vocabulary lists in tertiary English foundation programs in the United Arab Emirates over the course of the 2015-2016 academic year. As mentioned above, interviews were utilized as the primary data collection method and when necessary were supported by

follow-up emails, phone calls and document analysis. Specific details and notes about the qualitative data collection are listed below:

Identify institutions to potentially include in the study. For a relatively small country with a population of about 5 million people, the UAE has over 100 educational providers (QAA, 2017) , many of which may be branch campuses of well-known institutions located in other countries like the USA or the UK. As such, some basic requirements helped focus the study. These include: the institution should have a formal English language foundation program, the institution should be well established and at least 7 years old (to potentially look at least briefly at the history of the use of lists), and the institution should be UAE based and not a branch campus of a university located outside the UAE and have a significant proportion of UAE nationals as students to help make sure that the research is well-grounded in the context and not representative of a different population. A total of seven institutions were identified that met these criteria.

Identify and contact key individuals at the institutions to see if they would be willing to participate in the study. This involved identifying key individuals either through personal connections, word of mouth or through information available on the university web page. After key individuals were identified, twelve e-mails (Appendix A) were sent to enquire if they would be interested in participating in this research.

After ten of the twelve individuals from five different institutions agreed to participate, I **set up an interview** with these individuals- with 9 of them in person, and one via Skype.

Then, I **conducted a semi-structured interview** based on the questions identified in Appendix B – Questions for semi-structured interviews. All interviews were audio recorded and transcribed.

Finally, where required, a **document analysis** of the small number of materials that were shared during the interview was conducted. This involved looking in detail at the vocabulary resources that were provided, doing a brief analysis of them to ascertain their aims, and selecting appropriate examples to include to help illustrate the practices in each program.

4.8 Analysis of interview data

It must be acknowledged that data analysis in interpretive research is “less a completely accurate representation (in the numerical, positivist tradition), but more of a reflexive, reactive interaction” (Cohen, Manion, & Morrison, 2011, p. 554) between the researcher and the data collected. As such, having systematic data analysis helps to analyze the points in detail and reduce subjective influence by the researcher.

After the ten interviews were conducted, they were transcribed in full into Microsoft Word (See Appendix E. for an example) and imported into Nvivo to

help facilitate cross-referencing of the participants' responses. The next step was to begin the analysis. The general stages in the analysis of this research reflect three of the four suggested by Cohen et al. (2011, p.555), in that they:

- 1) **generate natural units of meaning** by basing the primary coding categories on the interview questions and when necessary, creating secondary coding categories (See Appendix F. for an example of this),
- 2) **involve classifying, categorizing and ordering these units of meaning** by taking the interview data and for each interview, classifying it into the primary and secondary categories, and
- 3) move to **interpret the data** by examining all of the data from each of the coded categories, noting patterns and themes, specific details and similarities and differences between the cases.

As mentioned above, the primary coding system referred to the interview questions (see 4.4.1.1 – The design of the interview). This is an example of open, light coding (Cohen, Manion, & Morrison, 2011), where the text data from the interviews was broken down to smaller units that specifically addressed the interview questions. Sections of the text typically only had one code applied to them, and some sections of the interview were not coded when the data was not relevant for the research questions (personal anecdotes, off topic comments, etc.). This coding was done to help the researcher identify similar information and to retrieve data related to each area quickly. Table 10 shows the codes used in Nvivo organized into general themes, which interview question it typically

related to, which research question it corresponded to, and how many entries there were for each code.

Table 10 Codes and overall themes

	Interview Question	# of entries	Research Question(s)
Personal information			
Teaching Experience	1	10	Demographics
Other Places taught	1/3	8	Demographics
Institution/Program information			
Institution Information	2	10	Context information
Program Information	2	10	Context information
Type of English taught	2	8	Context information
Student profile	2	7	Context information
Problems/ Difficulties with vocabulary			
Students in current program	3	10	1
Students from other regions	3	5	1
Reading and Vocabulary	3	3	1
How program deals with vocabulary			
Approach to vocabulary	4	10	1/2
Assessment	4	4	1/2
CEFR	4	2	1/2
Use of Applications	4	10	1/2
Changes in approach towards Vocab	8	6	1/2
Ideal Approach	9	10	1/2
Word lists in the program			
Use of Word lists in program	6	10	2
Lists meeting the needs of students	6	4	2
Non- program specific word list awareness and use			
Knowledge of Word Lists	5	10	2
Role of Lists in directing student learning	7	5	2
Practical problems of working with a list	7	7	2
Predictions for Future Lists	10	7	2

For example, for the first interview question (below), I identified the number of years of teaching experience both overall and in the UAE specifically and put the text from each interview into this specific coding category, labeled “Teaching Experience” – see Appendix F for an example of this:

1. Can you start by just giving me a bit of general information about yourself in terms of the number of years you've been teaching English both overall and in the UAE specifically?

In many cases, the participant also included the other countries where he/she had worked, and as this was not addressed specifically in the interview questions (although it was dealt with in interview question 4, which asked about similarities of differences in other contexts this became a secondary coding category) and this became an example of a secondary code – “Other places taught”. Some additional secondary codes included: types of English taught, student profile, assessment and vocabulary lists, uses of Common European Framework, and problems with vocabulary in other regions.

Following this, the content of each of the coded areas was analyzed in terms of the general themes including demographic and general program information (e.g. age, size), common concerns with vocabulary for students in the programs (interview question 3), and more specific information about how vocabulary is dealt with in each program. This information was then arranged into descriptive summaries in the findings chapter of both these general concerns and case specific information.

The final stage of content analysis involved examining the different categories and looking for relationships and general themes of interest that directly relate to the research questions.

4.9 Research ethics

Ethical considerations are one of the cornerstones of any good research study. In education they are vital as well as there may be students involved who need to consent to whatever they are involved in. McDonough & McDonough (1997) said that ethics worked for two key purposes...”(a) to protect the validity of the research – for example, the achievement of good data by recognizing that the data provided by them and its use is with their permission only; and (b) to protect the participants of the research by rules of confidentiality and consent to particular uses of the data” (54).

To help ensure these considerations are met, the names of all participants and the specific institutions will be kept anonymous and confidential and their verbal permission will be obtained at the beginning of all recorded interviews. It is understood, however, that because there are a limited number of tertiary educational institutions in the UAE that the specific institutions may be recognizable by individuals in the institutions or by those who are familiar with the institutions. Likewise, because there are a limited number of people involved in curriculum/ management who have an overall understanding of why specific lists were or were not implemented, these individuals might also possibly be recognizable. I have done my best to avoid this possibility by including only general information about the institutions involved. A copy of the ethics certificate is available in Appendix D.

4.10 Credibility and trustworthiness in the interpretive paradigm

In any research study, issues of credibility and trustworthiness are paramount. There are several key aspects in establishing credibility and trustworthiness in the paradigm and in multiple case study research in particular including addressing the role of the researcher and the issue of researcher subjectivity and providing sufficient detail in order to establish internal validity (Cohen, Manion, & Morrison, 2011).

The role of the researcher and the issue of researcher subjectivity can certainly be a concern of different types of interpretive research and particularly as a methodological critique of case studies, which many might see as a less formalized and less structured method. Guba and Lincoln point out “An unethical case writer could so select from among available data that virtually anything he wished could be illustrated (p.378).” Indeed, this may be a bias that comes against case studies due to their perceived lack of structure and rigor. It must be admitted that these concerns rest on certain assumptions that can raise deeper and potentially irreconcilable ontological and epistemological issues between supporters of different methodologies. However, some, such as Bent Flyvbjerg (2006: 237), suggest that the case study is no less biased towards proving pre-set assumptions than other methods of inquiry, and that “on the contrary, experience indicates that the case study contains a greater bias toward falsification of preconceived notions than toward verification”. It can even be argued that “quantitative measures *appear* objective, but only so long as we don’t ask questions about where and how the data were produced... pure

objectivity is not a meaningful concept if the goal is to measure intangibles [as these concepts only exist because we can interpret them” (Berg & Lune, 2012, p. 340).

There are certainly significant criticisms or limitations that could be applied to single and multiple case study designs as well as other examples of the interpretive paradigms. In this section, I will address the full range of these, and deal in general with some common criticisms or limitations of this type of research that could affect credibility and trustworthiness and focus more specifically on the specifics of the “cases” involved in this study. Perhaps the most common criticism of case study research concerns the interconnected issues of researcher subjectivity, methodological rigor, and external validity. While some of these can certainly be considered as limitations, they can also be points of strength as case studies may offer more in-depth point of view that only someone intimately involved with the context may know

It is hoped that the subjective experience of the researcher may also bring with it a deeper awareness of the contexts, which will hopefully provide deeper insights than, might be gained with a more distant, objective approach.

In terms of methodological rigor, some might argue, as Maoz (2002: 164-165) does, that “the use of the case study absolves the author from any kind of methodological considerations. Case studies have become in many cases a synonym for freeform research where anything goes”. The fact that case study

research seems to lack a set of systematic procedures is also an area of concern because of the relative lack of methodological guidelines (Yin, 2009: 14-15). However, this can be overcome with clearly defined methodological techniques, like following a specific set of questions to provide structure to the interviews to ensure that all the topics are covered for each interview, recording and fully transcribing all interviews and coding the data to refer to specific research questions and other issues of interest that emerge and epistemological grounding in the specific context of these university English Foundation programs in the UAE. To help minimize these limitations and to help establish credibility, all of these steps were addressed in the data collection and analysis processes.

Of course, as with most interpretive designs and case studies, there is the issue of external validity or generalizability (Cohen, Manion, & Morrison, 2011), which some might see as necessary in order to establish credibility. Some might expect that the issues contained here might be generalizable onto other contexts or that they would be valid in other programs, but most case studies, this one included, unlike more positivist experiments, do not claim to offer any predictions, especially statistical ones, or externally valid results for any situation other than the original context. As such, this study makes no claims as to the ability to make any sort of prediction or to be generalized onto any other context. It is rather an attempt to describe the situation and hopefully cast a more detailed light upon the complexity of the issue and to some potential solutions that are being utilized, a point that will be addressed in more detail in the next paragraph. In this regard, the concern is not to have a universally representative sample, but rather to help

contribute to the expansion of the generalization of the theory (Yin, 2009).

A second aspect of helping establish trustworthiness and credibility is including sufficient detail to show that the findings make sense and achieve internal validity within the study. This may include 'thick description' of data and the inclusion of data directly from the respondents' instead of from the researcher's point of view. By presenting sufficient descriptive data that can be read and which will help support the findings and by bounding it in the context, it is hoped that this will add to the plausibility and credibility of the research.

4.11 Limitations

Moving to looking now in more detail about this specific study, there are a number of potential limitations including possible unequal access to the different contexts, the potential biases in the data collection methods, and the subjective bias of the researcher in regards to the use of these lists.

The first issue of unequal access across the different contexts and therefore across the different cases in this multiple case study may prove to be a limitation. In an ideal situation, an equal amount of time would be spent at each institution. However, because of issues such as distance of the context from the researcher, possible complications gaining access to campuses, familiarity of the researcher to certain contexts and time availability of key individuals in the contexts, there may be a disparity in time spent at each location. This may end up with providing

an unequal amount of information on the different contexts, which is less than ideal, but as this is an exploratory study, any useful information that can be garnered is potentially of use,

There are potential concerns with almost any type of data collection as it often represents one way of looking at a case or situation. The main source of information for this study, the interviews with key individuals at each institution, also has its limitations as it only represents a small number of people in a potentially very large program or department. Even though efforts were made to try to interview at least two people from each institution, this was not always possible, especially for smaller programs. This was done for the larger programs, but it should still be acknowledged that since these individuals are the primary source, it may not adequately represent the opinions of the faculty as a whole.

Another potential limitation for this study is the focus on faculty members' experience and opinions while not considering those of students. It could certainly be argued that it is vital to also focus on the students' perceptions and opinions as they are the ones that are utilizing these lists. However, for the purpose of this study, the focus is on the "experts" who are working with these lists, choosing the most appropriate one(s) and working on the most appropriate way to provide it to students so the lexis can be most easily acquired.

The final potential limitation is the fact that the researcher himself is a strong believer in the use of these lists and has been involved in their use and construction in several programs in the past. As such, it could be argued that he is by no means a purely objective researcher for this subject. However, because of this interest in the topic and in finding an effective implementation of these lists, it hopefully adds for a more thorough approach that may help provide a range of possibilities.

Chapter 5: Findings

This chapter will describe the findings of the research and in general is organized around the two research questions and the related interview questions.

First, general information about the institutions and programs represented in the study and about the participants in the study is provided to help illustrate the context of the research and the participants. Next, it will discuss more general information corresponding to both research questions before it moves to look at the individual cases. For the first research question, this involves general perceptions of why students in this context have difficulty with lexis and the importance of vocabulary compared to other skills and for the second research question this includes the participants' familiarity with word lists, and the practical concerns of working from word lists as mentioned by the interviewees.

After that, each of the five individual cases will be explored in greater depth to examine how vocabulary is dealt with in the program, whether an explicit vocabulary strand exists, if a vocabulary list is used to help guide vocabulary acquisition, how the lists or any list related materials are used to help deliver the vocabulary and how vocabulary is assessed in the program, where this information is available. This focus on the individual cases relates specifically to the first research question of how word lists are used in these programs. Finally, at the end of this chapter, I examine some of the interviewee's impressions about an ideal system for learning vocabulary in this context and take a final look at some ideas about the future of word lists in the region.

5.1 General information about institutions and intensive English programs in the study

For this study, data were collected from five UAE tertiary institutions, ranging from private, fee-charging institutions to large federal ones that are free for Emiratis to attend. Because of the relatively small number of tertiary institutions in the UAE, to help maintain anonymity, only a general overview of these five institutions will be provided.

The results of the second interview question showed that the institutions ranged from more liberal-arts type programs with a wide variety of majors to ones with an exclusive engineering focus, to an institution with a more applied focus (see Table 10). They also varied dramatically in size from institutions with multiple campuses in two or more cities to smaller programs with a single campus. Three of the five institutions had gender-segregated campuses as is typical for Emirati public secondary schools. The institutions also ranged in age from eight to more than 20 years old (see Table 10).

The intensive English programs, here generally called Foundation or Academic Bridge Programs (ABPs) also varied considerably in a number of areas. The first of these is in regards to the exit level of the program, which is primarily measured by IELTS scores, although in most cases, this is also accompanied with some sort of internal exam or a requirement to pass the current course. These exit scores ranged from an overall IELTS 5 to an overall IELTS 6.5, although TOEFL-iBT and in one case TOEFL IPT (paper based) results were also accepted. The second area of difference is the duration of the program and of the courses within

the program. These ranged from a minimum of an eight-week session, although a single semester was more typical, up to a maximum of two, three or four semesters, or a full 2 years, although there is a national trend to limit these programs to a single year, now known as the foundation year (Hameli & Underwood, 2014). As might be expected, this certainly affects the number of courses offered in these programs, with longer programs offering more courses to a wider range of student ability. The third area of difference was in the number of hours of classes in English and other areas covered within the foundation programs. Three of the five institutions focused exclusively on English, while the other two both included math, and one also included science courses, specifically, chemistry and physics. The number of hours studying English a week ranged from 15 to 20. The final area of difference was in the number of teaching staff and students in these foundation programs. They ranged from less than 10 to up to 200 faculty members and from less than 200 to more than 4000 students in the English foundation programs at the institution.

Table 11 - Summary of programs

Case	1	2	3	4	5
Size	medium	medium	medium	large	large
Focus	engineering	varied	engineering	Applied focus	Liberal arts
Age band	11-15	15-20	8-10	20+	15-20
Other courses besides Eng	no	yes, but optional	yes	yes	no
Number of participants	2	1	1	2	4
Interview lengths	37 min, 29 min	36 min	59 min	74 min, 30 min	28 min, 22 min, 33 min, 30 min

5.2 The participants in the study

There were ten participants, all of whom had extensive experience teaching and/or managing in the foundation program they were representing. Some of them were no longer actively teaching and were instead holding positions of responsibility inside these programs, including curriculum and assessment supervisors/coordinators. The interviews varied in length from 23 minutes to an hour and 14 minutes, with an average length of 39 minutes (see Table 10). The total length of all ten interviews was six hours and 17 minutes. The length of the transcribed interview ranged from 3563 words to 12,222 words, with an average of 6302 words and a total of 63,029 words.

Table 11 shows the teaching experience of the participants both in the UAE and overall, with a total of 215 years of teaching experience, with over half, 113 years in the UAE, and a considerable amount in similar countries like Bahrain, Kuwait and Saudi Arabia. There was also experience in a number of other countries including Egypt, Hong Kong, Italy, New Zealand, Poland, South Korea, the U.K., the USA, and Tunisia. The interviewees represented six different nationalities, with the largest number being American. The genders were evenly balanced, with five male and five female respondents. They have also been given coded, gender-neutral names to ensure anonymity. No assumptions as to the gender or nationality should be made based on the names.

Table 12 Participant Information

Participant #	Years teaching in the UAE	Years of teaching experience	Coded Name
1	11	30	Alex
2	18	20	Bailey
3	18	30	Casey
4	8	20	Dylan
5	15	21	Eddie
6	10	24	Frances
7	7	20	Gray
8	13	18	Harper
9	6	12	Jesse
10	7	20	Kelly
Total	113	215	

5.3 The relative importance of vocabulary

Having looked at the context and summarized some information about the teaching experience of the participants, we move to responses dealing with part of the first research question that deals with perceptions about the teaching and learning of vocabulary in these programs in the U.A.E. While all the interviewees indicated that vocabulary was crucial for students and was one of the main areas of weakness, the interview with Jesse quantified this to some degree. Jesse professed a “really vocabulary intensive” philosophy, especially when compared to discrete language skills. Indeed, when his program did a factor analysis of exams, vocabulary was:

35 times as important as the second most important factor ... it’s 35 times more important than idiosyncratic reading skills and idiosyncratic listening skills, which is like reading skills that are not shared with other aspects of English, which is like skimming and scanning. ... basically the whole thing is the vocabulary factor and this tiny sliver is every other factor- reading and listening and speaking and spelling, in fact, the second most important thing after vocabulary is spelling. And then you have unique reading skills, unique listening

skills like that. So, I always like to say, if you don't know a word, if you don't know treachery, you can't read it, you can't listen to it, you can't speak it and you can't write it.

Clearly, vocabulary both presents substantial difficulties and plays an essential role in this context, and is handled in quite different ways in these programs depending upon a variety of factors.

5.4 Reasons why students have difficulties with vocabulary

Continuing on with the first research question, we move to one of the subjects covered in interview question three which has to do with the difficulties that students have with vocabulary. All of the participants agreed that vocabulary was a substantial problem, and although there was no single factor that was mentioned by all participants, there were a number of factors identified as reasons why the students had substantial problems with English vocabulary.

These included:

- a lack of interest in learning English: “few of my students ...are generally interested in English or see it as a tool, or a powerful ... asset, or skill to have in all sorts of areas” (Kelly)
- a lack of an interest or motivation in reading: “the students really didn't come with a level of reading, or this innate appreciation for reading” (Bailey)
- the lack of extensive reading in both Arabic and English: “I think we all agree that the optimum way of learning vocabulary is by extensive reading and our students do not do extensive reading” (Alex)
- a lack of familiarity with the primarily academic topics: “they come across words they don't even know in Arabic sometimes, if it's a sort of more academic topic”(Kelly); “[The students' knowledge of] Academic words are just not where they should be..” (Frances)

- the lack of an adequate ability to work with different word forms: “They don’t know how to learn - the noun when they need the adjective, for example. They don’t know how to use it in a sentence, speaking or written. They don’t know how to recognize what it means in a paragraph” (Eddie)
- certain deficiencies in the K-12 system in regards to preparing the students for university study: “I really think that the K-12 system really didn’t work – I don’t know how to say this but – they didn’t really focus on language development in a way that would make it so they could transfer their skill at the university level. And I think that maybe that’s because they were trying to accomplish a lot in the time given. Or it also has to do with system flaws. I mean, there are lots of different things that you could look at, but they just weren’t prepared when they arrive” (Bailey)
- the sheer volume of vocabulary that they need to acquire: “I think the obvious one is just the lack of breadth of vocabulary. They just have a limited lexical knowledge. The number of words that they know is very limited. I think that’s one of the factors that impacts on their very poor reading skills, as evidenced by the IELTS score of 4.6, I think, is the average for Emirati learners in the UAE” (Gray)
- spelling: “ obviously spelling as well, that’s a huge weakness. The difference between English and Arabic scripts. The lack of, short vowels in- in Arabic. So that’s a major problem, is spelling” (Gray)

The vocabulary that students did have was primarily from “general use in the environment here.... maybe in stores” (Bailey), with television and other technological sources playing a significant role.

A number of the interviewees also identified the fact that in Dubai and Abu Dhabi, the richer and more developed parts of the country, a number of schools, particularly private ones, were doing a far better job in preparing the students for university and that a larger percentage of students were capable of skipping the foundation programs entirely. One of the interviewees (Jesse) also pointed out

that while there has been a steady increase in the level of English in the country as evidenced by CEPA scores, this improvement was typically not always visible to teachers in the programs because the profile of students going into the intensive English programs has not changed greatly.

When asked if the same types of problems related to vocabulary existed in other contexts they had worked in, several people who had worked in other countries in the region (Saudi Arabia, Bahrain, Oman) reported similar or identical problems in other countries in region. Students in other countries, best represented by experience in Asian countries, also had problems with vocabulary, but these problems seemed to differ from those of students in the GCC region. Dylan reported that Asian students “can have similar problems in that their L1 is not very like English,” but there is a “real love affair with English, as in English movies and culture” found in students in Japan and Korea, who “pepper their vocab, their language with as much English as they can.” Alex also mentioned that Japanese students, for example “don’t have as many problems with vocabulary because first of all, they’re more reading oriented.”

5.5 Awareness of word lists/ Practical problems of working from lists

Before presenting the individual cases, it is important to frame the discussion of the second research question and look at the participants’ awareness of word lists and potential problems relating to their use. This was clearly a well-informed group, where at a minimum, all the interviewees were familiar at least two

frequency word lists, and others were able to roll off the names of up to seven lists off the top of their head.

As might be expected, a number of the interviewees had significant insights to some of the practical challenges of working with a list. As Gray put it:

having a list ... it's the starting point... you need to know what words to teach... and I think some teachers misinterpret that and assume that's what we're going to use for teaching purposes, and just give it to the students "Here's the list, go and learn the words"... but obviously that list... needs to be transformed into useable learning materials

Dylan pointed out that the list itself has to be relevant for students and for what they're using it for, manageable in size, and ideally based closely on class materials. Time is another practical consideration that fits into this as well:

if teachers are choosing to teach vocabulary in class time, it's a hell of a lot of time. Even using it as a review after you teach, it's still a lot of time taken away, particularly if the list is not based on the textbook... because then it's a completely different set of words that they're learning .. so the students are learning some words that day from the textbook and then they're learning whole new words [from the list], which might not appear that day in the textbook.

Gray elaborated further about what was necessary after a suitable list was selected:

Creating word guides and researching each word: what's the most frequent meaning, or most useful meaning that we need to focus on... and the part of the speech as well, is the verb or the noun the best one to start with ... and all the other aspects of word knowledge as well, the students need to know. And creating a sort of useful word guide, but even that I don't think is enough. I think students like to use it, they like to have it on paper as something to refer to like a mini-dictionary. But then, you know, you obviously

need to create some learning materials where they actually have to interact with the words, and complete exercises and tasks from those words.

Alex felt that it was also vital to provide relevant examples along with definitions – where the example sentences mentioned the country, the institution or other extremely familiar concepts or contexts. It was also important that they be basic and not overly complicated and that perhaps also presented some basic knowledge and helped enlighten the students to some extent. He also felt that if possible pictures should be used as well as this activated more knowledge and helped in acquiring vocabulary.

It became very clear that just having a list was only the beginning, and that it really required a great deal of thought and work beyond just choosing a list.

5.6 How vocabulary is handled in the programs – an overview

This section presents information about the teaching of vocabulary in the programs and connects directly to both of the research questions. For the first research question, this involves looking at how each program deals with vocabulary related challenges. For the second research question, the focus shifts to looking more specifically at how vocabulary lists are utilized by each program. However, before discussing each program individually, it is helpful to look at some common points about these programs and how they deal with vocabulary.

To begin with, each of these programs has a very similar remit – to improve students' English to enable them to study in an English-medium academic environment. As might be expected from the comments above, one of the main challenges in these programs is the substantial expansion of students' lexis, especially in regards to academic vocabulary.

While each of the five programs seems to handle vocabulary in different ways in terms of the materials that are used and how it is taught and assessed, there were also some similarities. To begin with, in regards to the focus of the vocabulary instruction, as noted in an initial exploratory study carried out a couple of years earlier (Burkett, 2015) the *Academic Word List (AWL)* (Coxhead, 2000) was well-represented with three of the programs at the smaller institutions using some variation of the AWL, either informally or through only part of the program or by some of the faculty. The other two programs, on the other hand, have more individual approaches with one of the larger programs using a condensed version of the Oxford 3000 combined with the AWL throughout the entire foundation program, and the last program in the process of fully transitioning from a list based on the British National Corpus to an institutionally created list modified specifically for Emirati students. These two programs will be covered in more detail in this section.

Each program also uses different resources to help facilitate the use of the list that they employ. These might include in-house materials, commercially published books with an explicit vocabulary focus, online applications or software

specifically designed for vocabulary learning, and handouts produced by some of these online programs. In terms of how the target vocabulary is assessed, this also varies from program to program ranging from individual teacher-driven activities and quizzes to standardized program-wide weekly vocabulary tests. In terms of how the target vocabulary is assessed, this also ranges from program to program with some incorporating individual teacher-driven activities and quizzes to others including program-wide weekly vocabulary tests.

5.7 Program-specific information on how vocabulary is dealt with

Adhering to the case study approach, each institution will be briefly described in terms of its program structure, with a focus on how vocabulary is handled. In particular, information from the interviews and supporting documents will be used to discuss the following areas that cover the aforementioned aspects of research questions one and two:

- how vocabulary is dealt with in the program in general,
- whether an explicit vocabulary strand exists,
- if and how any frequency list is used to guide the acquisition of lexis,
- what materials are utilized to support vocabulary teaching and learning,
- if and how vocabulary is assessed.

5.7.1 Institution 1- A medium sized, engineering focused university

This primarily EAP program has a total of three different semester length courses, with two additional shorter test preparation courses for students who





had not achieved the requisite IELTS or other external English proficiency exam scores.

In this program, there are at least two separate approaches on how vocabulary is handled: the more official one that spans the majority of the courses and another one utilized by a number of teachers teaching one of the two highest-level courses. The first, more widely utilized way is that vocabulary is largely dealt with in context and a separate vocabulary strand does not exist. The target lexis is identified from each of the course books, largely lexis that has been chosen by the publishers, and students are informed that they will be assessed on this vocabulary. How individual teachers approach the teaching of this varies widely. In the interview, it was reported that the reading text seemed to provide a positive resource for this, with mostly appropriate lexis selected and adequate definitions provided in the text, whereas the listening book was not as effective in this regard. The focus on this vocabulary was also supported by putting the words and definitions supplied by the course books into the popular online application, Quizlet.

The second resource was developed by one of the individuals interviewed for this research and was provided during the interview stage. It focuses on a total of 350 words from the AWL, and as the author states in the first page of the booklet “Because each word has several paraphrases and/or synonyms, by studying these 350 words, you will actually learn between 800 and 1,000 new words.” The resources used for this include a stand-alone, 50 page booklet with 8 words for

each day. The booklet includes the word, the part of speech, a visual image where appropriate, one or two definitions, a sample sentence with the word used in context, and other common word forms. The creator of the material also felt that it was important to provide a definition as well as a sentence in context, as students would often choose an incorrect definition if they were asked to find it in a dictionary by themselves. A sample page of the booklet is provided in Figure 9.

Figure 9 Sample of Vocabulary Booklet Page from Program 1

1.	trigger	verb		1. to cause sth to happen; set off	<i>When the driver ignored a red light, he triggered an accident.</i>	n = trigger
2.	thereby	adverb		2. in this way; as a result of this	<i>She got 500 on TOEFL and thereby advanced to freshman.</i>	
3.	volunteer	verb		3. to offer to do sth , usually without being asked or paid	<i>Ali volunteered to carry the teacher's books.</i>	n = volunteer adv = (in)voluntarily
4.	access	noun		4. a) a way of entering b) an opportunity or right to use sth or see sb/sth	<i>Only females have access to that shop.</i>	v = access adj = (in)accessible
5.	predict	verb		5. to say what will happen in the future; forecast	<i>Before the test, he predicted he would fail.</i>	n = prediction adj = (un)predictable adv = (un)predictably
6.	adaptation	noun		6. the process of changing sth to suit a situation; adjustment	<i>Moving to a new country requires many adaptations.</i>	v = adapt adj = adaptable
7.	accompany	verb		7. to go or come along with	<i>When I was a child, I used to accompany my big brother to football games.</i>	n = accompaniment
8.	eventually	adverb		8. in the end; finally; ultimately	<i>It might take 6 years or more, but eventually you will graduate.</i>	n = eventuality adj = eventual

The booklet was designed to be utilized with a series of roughly 50 quizzes where the day after the vocabulary is initially presented, students are expected to choose the correct two synonyms from a text box and use these to complete pairs of sentences with the target vocabulary word and a synonym. The quizzes have 10 questions and 4 of these are review from material previously covered. Part of one of the quizzes is given below. These quizzes either do not count for part of the course grade or are included as a minor part of the course grade under the “teacher discretion” category, which is worth 5% or less.

Figure 10 Sample AWL Vocabulary Quiz from Program 1

350 AWL Daily Quiz 1 (words 1—8)

NAME: _____ ID# _____ SCORE: _____

Instructions: *Make each pair of sentences below have the same meaning by writing synonyms from the box below in each blank. Number 1 is done as an example.*

<u>caused</u>	adjustments	the right to use	forecast
<u>accompany</u>	volunteered	eventually	triggered
<u>ultimately</u>	thereby	adaptations	offered
<u>go with</u>	predicted	in this way	access to

- A. Only females have ___ *access to* ___ that shop.

B. Only females have ___ *the right to use* ___ that shop.
- A. It might take 6 years or more, but _____ you will graduate.

B. It might take 6 years or more, but _____ you will graduate.
- A. Moving to a new country requires many _____.

B. Moving to a new country requires many _____.
- A. Ali _____ to carry the teacher's books.

B. Ali _____ to carry the teacher's books.

According to Alex, program surveys of students who used the list found that “they were unanimous in saying it was the best thing in the course.” The way it is set up, if students study regularly, “they can easily get 100% every day.” When a teacher complained about that and said that “it should be harder and challenge them more,” the creator of the resource said that he used to believe that, but now he thinks “there’s something really to be said for a feeling that you’ve really learned the words” (Alex).

The third stage is a word form quiz, where the students are again given a text box with about 10 words and corresponding sentences. However, in this version, they have to choose the correct base word form and transform it to the correct

word form, which is limited to one of the forms provided in the original booklet (see example below).

Figure 11 Sample AWL Vocabulary Word Form Quiz from Program 1

Instructions: *Headwords are listed in the box below. Use an appropriate form of the appropriate headword in each blank in the following sentences. Use only forms given in the 350 AWL Words booklet. [In this first practice only, an example is given.]*

<i>Nouns</i>	<i>Verbs</i>	<i>Adverbs</i>
<u>access</u>	trigger	thereby
<u>adaptation</u>	volunteer	eventually
	<u>predict</u>	
	<u>accompany</u>	

1. It is difficult to make a/an prediction of the rise in the global average annual temperature due to the enormous number of factors involved. Predictably, the estimate made 10 years ago has turned out to be an underestimate and it is predictable that any estimate made now will prove wrong 10 years from now.
2. Although most of us will live into our 70s or 80s, death is a/an _____ everyday of our lives. The knowledge of _____ death has a huge effect on human behavior.
3. At fast food restaurants, French fried potatoes are the most common _____ to burgers or fried chicken.
4. A gun fires a bullet when you pull its _____.

In this way, the selected AWL vocabulary can be introduced, then tested on the meaning in context, and next tested on the meaning and the ability to utilize the correct word form. Finally, the word is likely to be recycled in a following quiz in the future. A number of the teachers also other online tools like Quizlet Live or Kahoots to revise in class.

5.7.2 Institution 2 - A private university program

This EAP program at this private university has two main courses of English courses, with a supplemental primarily IELTS-focused course added for students

who fail to achieve the required English proficiency level after the second course. There is a higher IELTS requirement to exit out of the foundation program and start undergraduate studies than the other institutions in the study.

In this program, vocabulary is taught explicitly, although exactly how this is done, “I’m sure ... varies from instructor to instructor” (Eddie). The vocabulary covered typically comes from their course books; however, beginning in the 2015-2016 academic year, the more advanced of their required two semester long courses began utilizing the “*Essential Academic Vocabulary: Mastering the Academic Word List*” (Huntley, 2005) book to supplement and add an explicit focus to vocabulary learning. They did this because “we had previously worked on the AWL word list, and then we decided it just doesn’t make sense to work from a list. People got fed up with that” (Eddie). Therefore, this book provided a specific context and ready-made materials. The first 10 of 20 units are covered in the more advanced course, and if students fail to achieve the required IELTS or TOEFL score by the end of that course, they are enrolled into an additional English course that completes the book.

When asked about how successful this book was, Eddie mentioned that it was “very boring... but at least it still does make a context for students that are just learning those words off a list.” Another point was that that while some of the topics are okay, “some of the topics are really meant for people in the United States. You know like extracurricular activities ... and even a better example, housing... I mean how we think about housing is not the same way they think

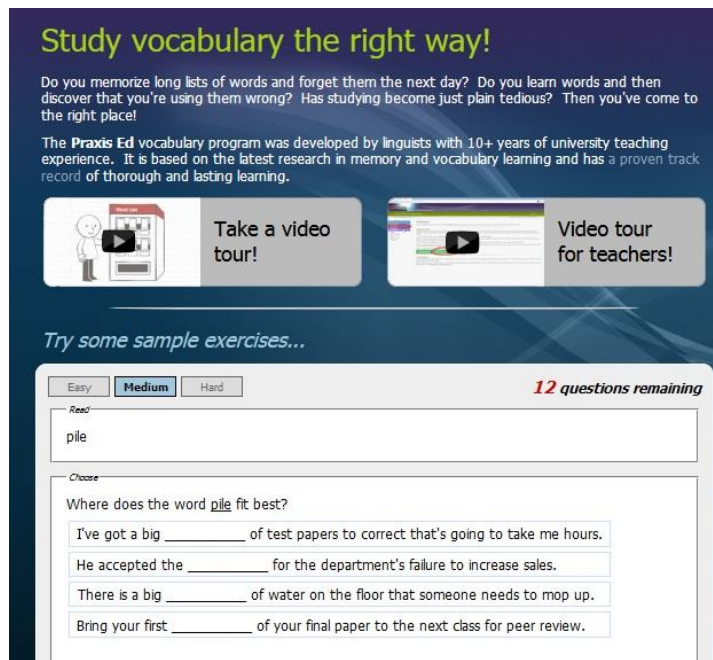
about housing.” Additionally, some of the types of exercises were not ones that the interviewee liked very much. However, the target AWL vocabulary from this book is assessed on the midterm and final exams, so that provides face validity.

The program also utilizes the supplemental online vocabulary learning program Praxis, which works concurrently with their course book. This resource, available at <http://praxised.com>, is completely web-based and can be used on a smart phone or other mobile device. According to the website, there are a variety of activities and “some exercises have you recognize the word when you see it, while others help you understand the word when you hear it. Some exercises challenge you to recall the word from memory (and spell it correctly!), while others help you learn how to use the word like native speakers do” (Westbridge Education LLC, 2017). The program introduces five to seven new words a day for roughly 30 minutes because “our research shows that five to seven words per day is a reasonable amount for adult learners. If this seems like too few, keep in mind that learning on Praxis Ed is both thorough and permanent. Once you've studied on Praxis Ed for a year, you will have at least 1000 words that you never, ever have to worry about again” (Westbridge Education LLC, 2017). It also allows students to opt out of certain words if they feel that they already know the target vocabulary.

Praxis is individualized and teachers can track usage by individual students. Each student has an individual word bank, with words being recycled and reviewed periodically. If a student makes a mistake with a word, the same

activity comes up again later in the study session and another exercise based on the same word comes up as well. There is one review session per day which Eddie reported lasts 30 minutes. The program is also customizable and can be adapted to a different list provided that it fits into the already existing bank of the company. A screenshot of one of the home page is included below:

Figure 12 Praxis Screenshot (Westbridge Education LLC, 2017)



Eddie stated that, although not using the application personally as it was being handled by a teaching partner, it seemed that the program was beneficial because students could study “on their own without word lists. It introduces words and then recycles the words.” The lower of the two courses uses the program to focus on vocabulary from the General Service List, and the upper level class uses the AWL vocabulary that is being covered concurrently with the extra books. All of this is also supplemented with resources like Quizlet.

In terms of assessment, vocabulary from the lists is included in the midterm and final exams and is tested in context, primarily in reading exams. The vocabulary from the various lists is identified if it already exists in passages, or if not, it is inserted where appropriate in texts and specific questions are written that focus on it.

5.7.3 Institution 3 - A smaller federal university with an engineering focus

As with the previous two institutions, there are three courses in this program, with the final course having a specific focus on achieving the required IELTS score to exit the program.

This institution allows teachers more individual freedom on how to teach and assess the courses they teach, including how vocabulary is dealt with. In the approach that was utilized by several of the teachers in this relatively small program, students focus specifically on academic (AWL) vocabulary selected from the course books using the *Compleat Lexical Tutor* (Cobb, 2013) . The Vocab profiler tool on this website is used to identify the academic vocabulary in the unit (which is informed by Coxhead's AWL), and then teacher discretion is utilized to select approximately 30 word families for each unit that will be focused on in class. This means that about 120 word families are focused on over the course of each regular semester length course, with more reportedly being dealt with in the final course. However, it should be noted that the vocabulary selected for the course is by no means standard and that other teachers of the course may have different ways of selecting or assessing vocabulary.

5.7.4 Institution 4- A larger federal institution

One of the larger programs in the country, this program has four levels and runs on 8-week cycles with students spending a maximum of one year in the program. It also uses IELTS as its exit instrument, but has an exit score of an overall Band 5 IELTS.

This program has a well-developed approach to vocabulary. Vocabulary is an explicit strand, and two existing vocabulary lists, the Oxford 3000 and the AWL, were modified to create their lexical curriculum. They have also linked their curriculum to the Common European Framework of Languages (CEFR) to help sequence the vocabulary (along with other curricular objectives). To start with, I will look at why and how an individualized list was developed and then more about specifically how the list and the CEFR are used in the program.

The rationale for the choice of the Oxford 3000 started with the dissatisfaction with the previous vocabulary curriculum, which consisted of the GSL and the AWL. The age of the GSL presented a major concern because of the number of new words that have come into use since it was created. The Oxford 3000 was selected because “it was not only based on the frequency but it was also based on usage and the commonality of certain areas of vocabulary, like colors and different things (Kelly).” Also, because the Oxford 3000 wasn’t strictly based on frequency, it included more complete sets of items, for example, if Monday and Thursday being common words were included in a purely frequency-based list,

but Tuesday was not, this did not seem to make sense from a teaching and learning perspective. This also seemed to be true “for quite a lot of vocabulary groupings like, whether it’s animals or jobs or colors. (Kelly)” Additionally, when some in-house research was conducted on the coverage of the Oxford 3000 compared to the GSL for materials used at the institution, it was found that “it was good. It was better than almost any other list.”

As might be expected, the selection of a list was just the beginning. Once the decision was made to work with the list, it was necessary to adapt it for the context. One of the initial difficulties with working with the Oxford 3000 was that it “doesn’t have any internal structure (Jesse)” – meaning that its organization is only alphabetical and that it does not provide any sort of frequency data or rationale for inclusion of individual words, although these could certainly be surmised by looking at frequency data from other lists. When the AWL is added to the Oxford 3000, additional difficulties emerge as these lists have different organizational systems, with the AWL utilizing word families, and the Oxford 3000 using a rather unique approach to counting word units – with adjectives and adverbs grouped together as individual units. To overcome these initial challenges, the program took the list from these two combined sources, representing about 3,700 words/word families altogether, and classified them according to the CEFR band that was given to them by the English Vocabulary Profile Project (EVP), an online project run by Cambridge University Press. This project includes 11, 201 words (or definitions, as words with multiple definitions have separate entries). This specific approach was chosen by the program

because it “was classified in a way that really made sense to us. And the fact that they had separated out different meanings was good for what we were teaching” (Jesse). Additionally, the CEFR was chosen because it was felt that there is “the most complete information on it and people are moving towards that. And also our learning outcomes and other areas are based on the CEFR. And then the CEFR is very tractable – it’s based on a Rasch model” (Jesse).

Another strong point about the EVP is that it is “...pedagogically based, so it’s based on the order that words appear in the textbooks or the order that students would learn them (Jesse).” This helps avoid what was aptly named the “sandwich problem”

the word ‘sandwich’- we would say that’s an easy word right? And in the EVP, it’s A1. In our list it’s A1 because the students learn it within the first week or two weeks when you start eating stuff - you talk about eating sandwiches. But in frequency-based lists, the word sandwich is not that common in the corpora that were used to make the lists... so you get weird situations where words like sandwich, which are easy words, appear as high level in the frequency lists because they’re rare in the corpora that are used to construct those. Then you have the opposite problem, where you have words like responsibility, which are high level words, but which are quite common in journalistic English... so these appear much lower... in frequency-based lists. (Jesse)

When the initial institutional list of roughly 3, 200 words from the Oxford 3000 and AWL were compared with the 11, 200 individual definition entries in the EVP, it included almost all of the 580 A1 Band words. As might be expected, this coverage decreases as the lexical difficulty increases, with about three-quarters

of the A2 band being covered, about two-thirds of the B1 band, and less than half of the B2 band, with almost none of the C1 and C2 bands.

After categorizing the initial list into CEFR bands, it then needed further customization and refinement. To begin with, inappropriate words like bar, wine, beer and others deemed to be too culturally sensitive were removed. After that, the word list was enhanced with the addition of definitions and relevant examples. This proved to be a time-intensive process as it took approximately a year to organize the original list, and then more time to set it up and test it.

After that, the next major change was the split of the CEFR bands into half bands like A2 and A2+. A major challenge with adopting the CEFR as a framework is the fact that the CEFR only has six main levels (A1, A2, B1, B2, C1 and C2) to describe the full range of language ability. In these types of intensive English programs, the primary focus tends to be in the A2 to B2 range, with B2 being the desired exit level for many of the programs.

As these bands are too wide to be even cursorily covered in 8 or even 16-week semester length courses, the institution decided they needed to divide these levels in half. For example, B1 was divided into a lower B1 (B1-) and an upper B1 (B1+) to provide somewhat more realistic and achievable lists for the courses. In order to accomplish this, all the words at an individual level (B1, for example) were loaded into test forms and given to teachers. These were split into lists of 200-300 words and the roughly 250 teachers voted whether the word should be

at the lower (B1) or higher (B1+) level. This resulted in about 8 to 10 votes for each word, and after these results were aggregated, they were run through a measurement model to determine where each word should be placed.

This created the A2, A2+, B1 and B1+ lists that became the basis of the vocabulary lists for the four levels in the program. And while there have been “a lot of people saying we should move things from one side to the other from A2 to A2+ or from A2+ to A2 and so on” in most cases, these changes were not made primarily because:

people create materials based on the list and if you change the list you have to change all of the materials that are based on the list – if you have the position that all of the assessments are based on the list in a serious way. That can be a lot of work. It also discourages teachers from creating materials. If they create materials based on your list, and then you change it after 4 months, all their material becomes invalid. (Jesse)

Looking more specifically at how the list actually fits in the program provides some valuable insights as to the practical considerations of employing a list. To do this, it is helpful to examine in some detail how the list is utilized by looking at the level of vocabulary in reading and listening passages used for assessment and material creation, how vocabulary from the list is assessed explicitly, and how it might be delivered to students. It is also illuminating to look at the rationale behind some of these choices.

To begin with, the word list plays a major role in setting the level of assessments and is a cornerstone of the curriculum.

You need to have a list so that when someone looks at an assessment and says- that word shouldn't be in a level 2 passage, you have to be able to go to a resource so you can say- oh yes it should, according to this. Because otherwise, it's just based on opinion. So, you need a list like that to go back to as a backstop because otherwise there's just an infinite regress. Oh this word is too difficult, no this is too easy – this should be higher, this should be lower, you know. So you need to be able to, basically, the buck stops at the Vocab list. And if people think a word is too difficult, you need to change the position in the vocab list. And then you can modify the assessments. But the buck stops at the vocab list and if something says that it's A1, it's A1 until the vocab list is changed. (Jesse)

The list is actually more complex than it might seem as in the cases of polysemy, where different definitions of the same word might be allocated to different CEFR bands so that as students develop, their comprehension of the different senses of the vocabulary is expected to develop as well.

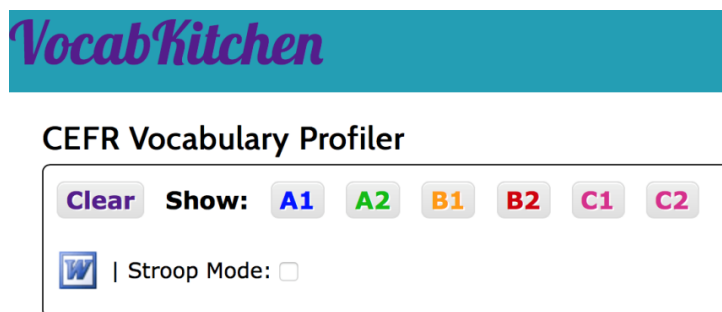
The issue of the lexical complexity of texts presents a major challenge to establishing the difficulty of a reading passage as more complex vocabulary can make even short texts difficult to understand. Program 4 chose to look specifically at the CEFR bands of the words in the reading passage as the primary way of setting text difficulty. They compared this technique to other factors like Fleisch-Kincaid and Lexile scores in order to predict the empirical difficulty of reading passages and found that having teachers classify the passages using this vocab list focus was more accurate than either Lexile or Fleisch-Kincaid. Specifically, they

had the item-writers themselves classify the texts and they used this to help them with the vocabulary level. So we had three predictions about

what level the texts is (sic)and then ... administered the texts on the final exam and we looked at their empirical difficulty, and so we compared the empirical difficulty after they were administered to what was predicted by the teachers, what was predicted by Lexile, and what was predicted by Fleisch –Kincaid. We found that Fleisch Kincaid was accurate within about 20% within a half band, Lexile was about 35% accurate and teachers were about 50-60% accurate. So that classification method turned out to be the most accurate for us. (Jesse)

One of the tools employed to analyze and level prospective exam material is the freely available vocabulary profiler VocabKitchen (Garner, 2017). This allows exam developers to focus on the CEFR level that relates to the course by using the institutional list. This application color codes all the vocabulary in the text according to CEFR band, so when the program is used it creates a visual image of the CEFR level of all the lexis in the text. An example of this is presented below:

Figure 13 Vocab Kitchen CEFR Profiler (Garner, 2017)



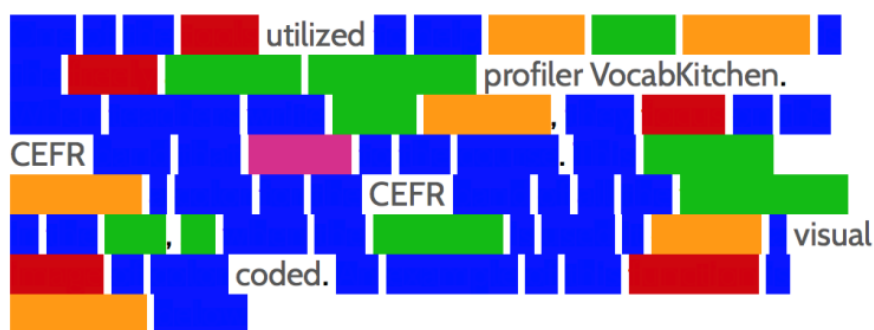
Word count: 71

One of the tools utilized to help create exam material is the freely available vocabulary profiler VocabKitchen. When teachers write exam material, they focus on the CEFR band that relates to the course. This program provides a color for the CEFR band of all the vocabulary in the text, so when the program is used it creates a visual image of color coded. An example of this function is provided below

There is also a “stroop mode” that deletes the profiled words to present a color-coded patchwork that takes away the need to discuss or analyze individual words. There are a number of pictures of this in the program’s exam writer’s guide.

Figure 14 Vocab Kitchen CEFR Stroop Mode (Garner, 2017)

Word count: 71



Regarding vocabulary assessment, during the 2015-16 academic year, the institution implemented standardized weekly discrete vocabulary quizzes (along with writing and reading quizzes) that were delivered to students at all campuses via BlackBoard, the institutions Learning Management System (LMS). This was also when the institution moved from a maximum of two years to a one-year program. This made the program even more high-stakes and gave rise to the need for more standardization across the program.

In terms of the delivery of the vocabulary curriculum in the classroom, there is a good deal of freedom in terms of how it is handled in the class. The vocabulary for specific courses was selected because it appears in the textbook, so the

majority of the words for week 1 appear in the relevant textbook unit. In the past, a vocabulary specific, topic based book centered on the Oxford 3000 was included until there was no longer any funding for this.

Although it was reported that some teachers teach the list, it was clear that this was not the recommended approach as the list was meant to be a resource. This was reported to be one of the downsides of having such a comprehensively specified list:

because we have a list that's very comprehensive, it's tempting for teachers to teach the list. ... Just because you have a list, doesn't mean that the most effective way to teach vocabulary is to give students the list. ... It would be like if you had a list of exercises like push-ups and pull-ups and stuff. It doesn't mean the most effective way to get people to do those is to give them the list. Or have them memorize what's on the list, and people have that misunderstanding all the time...(Jesse)

It was clear that the program advocated teaching vocabulary from context while focusing on the key vocabulary as identified from these lists. The context was provided in the course books. Additionally, applications like Quizlet, Vocabulary.com and Zondal are also used in the program, and some are quite well-established with a "Vocabulary Garden" set up to link to Quizlet activities. An example of this is presented below:

Figure 15 Vocabulary Garden from Program 4

<p style="text-align: center;">Level 2 Vocabulary Garden (Cycles 1, 3, 5)</p>						
Weeks 1	List 1	Flashcards	Arabic/English	Spelling	Review: List 1	Test - List 1
2	List 2	Flashcards	Arabic/English	Spelling	Review: Lists 1-2	Test - List 2
3	List 3	Flashcards	Arabic/English	Spelling	Review: Lists 1-3	Test - List 3
4	List 4	Flashcards	Arabic/English	Spelling	Review: Lists 1-4	Test - List 4
5	List 5	Flashcards	Arabic/English	Spelling	Review: Lists 1-5	Test - List 5
6	List 6	Flashcards	Arabic/English	Spelling	Review: Lists 1-6	Test - List 6

Kelly claimed that the explicit assessment of the vocabulary reportedly encourages the students to study although interestingly, the majority of students want the lists to be printed out for them and not just provided as a pdf or an online resource. The students also seem to appreciate the fact that the lexical learning goals are clear and achievable, especially when compared to some of the other skills, and if “they master those 30 words for that week, they can get 100% on their quiz. (Kelly)”

In regards to the general role of lists in the curriculum and the size of the lists, it was reported that “this is a really large list we have, and I don’t think that there’s any teacher ... that teaches all of these- maybe they give it to students, but I would guess that there’s no students (sic) that actually read the whole thing. And I think a lot of them [teachers] don’t refer to it when they’re creating materials.

They have their own sense of the difficulty levels of things, which our research has shown is pretty accurate (Jesse)”.

5.7.5 Institution 5 – Another large federal institution

This English for General Academic Purpose (EGAP) program has changed in recent years from a four-level, up to two-year program to move towards a single-year program. Similarly to Program 4, it also has a lower exit level, with IELTS 5 being the required overall band score along with passing the summative course.

This program is also the source of the materials mentioned in the context chapter and the place where I was at least partially inspired to start researching this subject in more detail. I was also involved in the beginning of the move away from the previously existing list based on the British National Corpus (BNC), and primarily responsible for the construction of a new, more context and level appropriate list, now called the “Burkett List”. I was also tangentially involved in the initial stages of planning for the construction of a multi-platform vocabulary learning application based on the list. However, after setting up the list, a process which will be detailed below, I left the institution and so have not been involved in the process since then. However, I am fortunate to be in touch with some members of the team who are working on the development of the app as well as other colleagues who were involved in the establishment of the first list, and as such can provide a more detailed examination of the program. As such, the organization of this section might vary slightly from the previous ones as it had a few more interviewees and will go in more depth.

5.7.5.1 Institution 5 - What came before

Part of the research design was to look at what had preceded the current practices at the institution for roughly five years, to see what impacts these practices may have had. It is especially relevant in this case to examine some observations and insights that emerged from the use of the previous list that was used for about five years at the institution, from roughly 2009 – 2014, which further explore the benefits that list provided and some of the challenges in its use.

As mentioned in the context chapter, this list was established and sequenced based on frequency as represented in the British National Corpus. While there were concerns with the list (age, corpus, appropriateness for students) and the way it was sequenced, it was clear that it was a very valuable experience for the institution. As Bailey explained,

as we learned, I think things changed and changed for the better ... it was a good start because it got us going, and then once we got going I think it led the way for ... better development and better ways of looking at how to use lists.

In assessment, the lists were used

extensively in terms of running our scripts through the profilers and making sure that all the materials that we put out, that we assess the students with, met the vocabulary parameters that were set by curriculum (Bailey).

Prior to the implementation of the BNC based list, there were difficulties with leveling some of the assessments, when, for example “a Level Three test,

actually some of them were more difficult than a Level Five or a Level Six test” (Bailey). Reading texts that were used for assessment purposes needed to include at least 90% of lexis from the current level and all previous levels, and texts used for listening needed to include at least 95% of lexis for the level.

Casey was involved in the creation of the initial list based on the BNC, and the support materials, and had the following to say about the materials:

They were grouped into ten words... lessons with ten words and they'd be contextualized with a text, and with questions based on meaning, and form, and usage. And I think that probably worked okay ... We also provided them with a booklet with the words, and the meaning, and the translation ... And the students ended up just looking at- just learning the words and then learning the Arabic translation and not really doing the activities, unless you gave them time in class and made sure that you were persistent. But if you left it up to them, maybe one in each class would bother to do that.

This meant that ultimately:

the students didn't tackle it the way they were supposed to, and so didn't get out of it what they could have. So they ended up just knowing, either they'd learn the definition and just learn the synonym, or maybe – even easier – just learn the Arabic translation, but that didn't give them the form, or the collocation, and all the other things we were trying to- to- to make sure they got. Because, you know, learning a word – just learning the meaning in Arabic – does not learn you a word (Casey).

There were extended efforts to put the program online, but the timing of the iPad initiative, established by the Ministry of Higher Education, was unfortunate as the software used for the vocabulary project was not compatible with the iPad IOS. In some ways, however, this difficulty also opened the door for a redesign of the

vocabulary curriculum before additional resources were allocated to further develop resources for the BNC-based list.

5.7.5.2 Institution 5: The design of a new list

The construction of a new list was an involved process that extended over the period of roughly 9 months from 2013-2014. There had been initial steps devoted to create a new list the previous Spring, but because of my interest in word lists, I was asked to take over the project in the Fall of 2013.

The list was an amalgam of four other lists (the new lemma based Academic Vocabulary List, the two New General Service Lists (NGSL n-GSL), and the Oxford 3000). First, these lists were combined; then after an extensive feedback process utilizing word frequency, CEFR band and other word data, and an extensive set of stages of teacher feedback, the list was reduced to approximately 2700 headwords, which included members of about 77% of the AWL (representatives of 439 word families). initial pre-list was also established with several classes of lower level students being asked to identify and spell some of the most basic vocabulary from Arabic to English. There were a number of deletions, primarily those, like in Program 4, that were not appropriate for the context as well as the addition of a number of words that were selected as being vital for the context (e.g. abaya, mosque, imam, Muslim, desert, sand, etc.). After the primarily frequency-based list was established, the second main step in the process was to divide the list into four levels with 600 words allocated for each (to match the four levels in the program that existed at the time), with a 300-

word pre-list that even students with the most basic level of English would be expected to know.

Then we put in place something that I coined a “restricted word family” approach. This approach was utilized because the word family approach, as utilized in the GSL and AWL makes far too many assumptions as to what students know if they “know” a word family, and on the other hand, a lemma-based approach is far too restricted with learners being able to identify the commonality in many word forms like “happy”, “happily” and “happiness”, even if they are not able to use them accurately.

This “restricted word family approach” limited the word family to the more common word forms that students at this level might be expected to know and use, and was based on CEFR data. I worked with the early stages of the project in the creation of some of the support materials.

5.7.5.3 Institution 5: The current situation (Spring 2016)

The program has moved away from the BNC driven list to utilizing the new “Burkett” list, which has been divided into three levels of lists (with 600 words for each list), plus a pre-level (of 905 words). Students are given 10 words per class day, which is fifty words a week to learn. At the moment, the primary supplementary resource that students use to help learn these words is the premium (paid) version of the Spelling City app. As Gray explained, the students:

access the app through their iPads. Basically they can either do it- and the teacher has to set it up for them. ... so each of ... the 600 words, is divided into twelve units of fifty words and then each unit is subdivided into five units of ten words. ... on the premium version ... there's like 25-30 different activities that focus on different aspects of word knowledge or meaning. Word pronunciation a little bit, not so much collocation. But you can put your own sentences and then you can focus on one or two collocations that way....spelling...I think that's what the website started with and then expanded more to other aspects of vocabulary...The premium version is very good. It's got a good range of activities. I think if students just access it themselves, they ... can choose which activities to do. So it, hopefully, allows them to match their- the activity to their learning preferences... spelling is a big issue. So a lot of them do a lot of the spelling activities...teachers can create assignments each day and deliver them to the students. So you can assign, say for each block, you know, six or seven specific activities for those ten words. And the students get a pop-up on the iPad saying, "Here is your assignment for today." And they go in and do those seven activities.

There is also a reporting feature, so teachers can track which students have done the work, what their scores were and which problems they had. When asked how successful it was, Gray said that students typically started off with a good deal of enthusiasm and all did it, but then gradually the students began to slip and stop doing it, so it required constant reminders and some class time spent doing it to remind students of the value of it.

Another major advantage with the premium version of the app is that it is somewhat customizable. You can import your own lists and then the program will create sentences and definitions, which are the default ones in the program. However, Program 5 was able to make arrangements with the App developers and send them spreadsheets with their own context-appropriate sentences and

definitions, which then could be used by all the students at the institution. As

Gray elaborated:

that enables us to personalize a bit more localized examples, and also select the right meaning as well. Because... when you put your words in, you have to select which word and which part of speech it is. So, you have to be very specific about which of those was selected.

When asked about student responses to Spelling City, it seemed that most students seemed to like it because there are fun and colorful games, but the common response from the interviewees was that students found it to be a bit childish, primarily because it was designed for the K-12 learners. This response was one of the primary reasons for the program to develop their own vocabulary-learning App.

In regards to assessment, in addition to using the lists to help ensure the texts used in assessments are level appropriate, the lists are also used to ensure that at least 90% of the lexis in texts are on the list, as described previously. There is also explicit assessment of vocabulary within the courses, namely vocabulary quizzes that occur roughly every two weeks and are based on the 100 words that were covered in that period. In these assessments, which account for 6% of the overall course grade, the students are primarily required to match words with definitions and also put them in sentences.

Some expressed concerns that 50 words a week was too much to expect the students to learn, especially if students were expected to learn the meaning,

collocations, and various word forms. Additionally, there still was not a system in place to assist students in recycle and revise the lexis. As Dylan noted, “ It’s just learn them, they learn the Arabic, they do the test, and then they move on. I’m sure that in a week or two they’ve forgotten them. “ Casey added, “It’s almost like they’re being washed with vocabulary and if some of it sticks, it’s good.”

5.7.5.4 Institution 5: The Vocabulary App

Because of these numerous concerns, including childish activities, inappropriate materials and examples, lack of revision and recycling and the desire to have an appropriate self-access, multiple platform (Android/IOS) vocabulary learning resource, in the Spring of 2014 the program, together with other units in the university, began the planning for the construction of a vocabulary app based on the new list. This was an extremely involved project, upon which I was able to receive occasional updates. Gray was involved quite closely throughout the project and detailed the preliminary steps that were involved:

the first one is to create a word guide ... researching information about each word: what’s the most common part of speech, the other word forms that would be suitable for our level to be taught, collocations, obviously, the meaning, the most frequent meaning, Arabic translation, maybe a possible other meaning that was useful for the students. And then from that we wrote texts ... for each level we wrote sixty texts, and each of those texts contained ten words from the list ... we didn’t sort of go through the word list choosing words by frequency or alphabetical order or anything. I think we just chose the ones most suitable for that topic, or theme of the text. So it was very much driven by the text that we wrote. Then, once the words had been assigned into blocks, we could then create materials- other materials around those ten words. So we selected twelve different activities for those ten words. And then basically wrote the materials for those ten activities. Some of them are very simple, I mean just matching the word and the meaning, so it was

just a case of selecting another word as a distractor. And others were a bit more time consuming, you know, to write, complete sentences and then have distractor collocations, for example.

After this, the university procurement department contacted an app development company and went through the procurement process to get an app developer on board. This was a long process with a project manager from the university, and according to Gray,

the app company themselves underestimated how much work was involved in this. I mean, we primarily chose them because they seemed to have a good understanding of what we wanted. But nevertheless, (the project manager) had to keep going back to them, you know, saying hundreds of times, “Oh, this isn’t quite right. No, you haven’t understood what we wanted.” And I think that’s an experience that a lot of education organizations have had with that development company. They didn’t quite understand what we wanted.

In terms of how the app functioned, Dylan elaborated, “the app’s being developed on solid theoretical principles, according to Nation and to others. It takes a three-step process where the students first notice the form and the meaning, then they go on to encode it, and then they go on to retrieve it.” Specifically, in the app, each block is divided into six stages based on vocabulary learning theory. These stages include:

- 1) Focus on meaning
- 2) Focus on form (spelling, pronunciation)
- 3) Learning context (word in sentences, choosing the correct word by meaning)
- 4) Learn collocations (look at 4 or 5 useful collocations)

- 5) Learn different word forms (a limited number)
- 6) A complete text (with questions, bringing everything together)

These six stages are represented by thirteen different activities, which:

take the students through from basic Arabic English, or Picture English/Picture Arabic, noticing the actual form of it ... through spelling, which we specifically target short vowels, because that's what Arabic learners have a real problem with ... to order sentences, which is a word order thing that they often have trouble with ... then fit the words into sentences, so they're ... cognitively using the word to find the meaning... then through word forms, and common collocations.... at the end, they get given a text which incorporates all the words that- from that day, and so they're in context with multiple choice questions at the end. (Dylan)

When the application was initially piloted, a small group of stronger students were selected and were able to proceed through this relatively quickly, taking perhaps 25-30 minutes. However, in the most recent piloting, the students took close to 1 hour to complete a block of 10 words. This was longer than desired, so there were plans to go back and redesign some of the activities. Another concern was the lock-step nature of the app, where students had to complete each section before proceeding. At the time of the interview, a near-final version of the app for one of the three courses was being piloted (600 words- 12 weeks with 50 words/week).

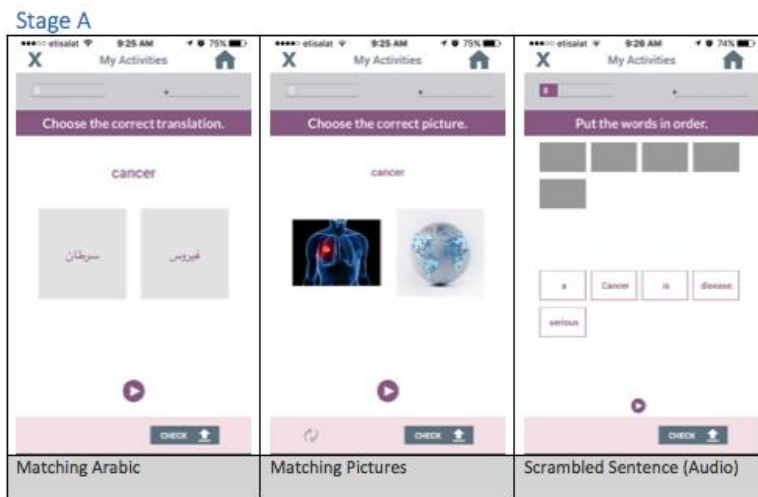
However, Dylan relayed some quite positive feedback:

When we piloted these activities, the students really liked the fact that they could read this text at the end and understand it completely. Whereas they weren't, they wouldn't be able to without the activities before. They also liked the spelling. They really loved the spelling.

And they liked the puzzle aspects- the game aspects of it. Yeah. This app also incorporates a lot of revision, so we review at the end of every week, at the end of every month, and at the end of every block. So, they get constant revision of the words as well. So it's all- all of theory principles that we've read up on, that's what we've incorporated into the app.


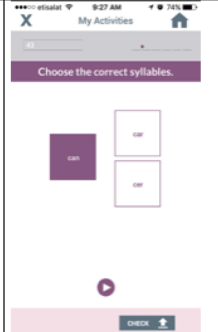


The app offers a very significant independent learning resource that allows motivated students an innovative way to develop their lexical knowledge in a structured way. Following are a number of screenshots of the activities from a recent version of the app to help illustrate how it looks on a smartphone. The app is also able to collect and track student data and report it to the class teacher as well as provide global information about what students find difficult and easy.

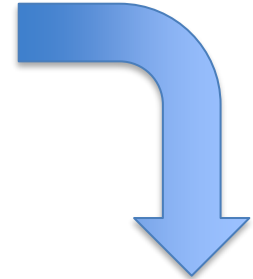
Figure 16 Screenshots from Program 5 Vocabulary App





Stage B
Scrambled letters/syllables

Each word is one of the following:

 <p>1-Syllable</p>	 <p>2-Syllable</p>	 <p>3 or more Syllable</p>	 <p>Gap fill words</p>
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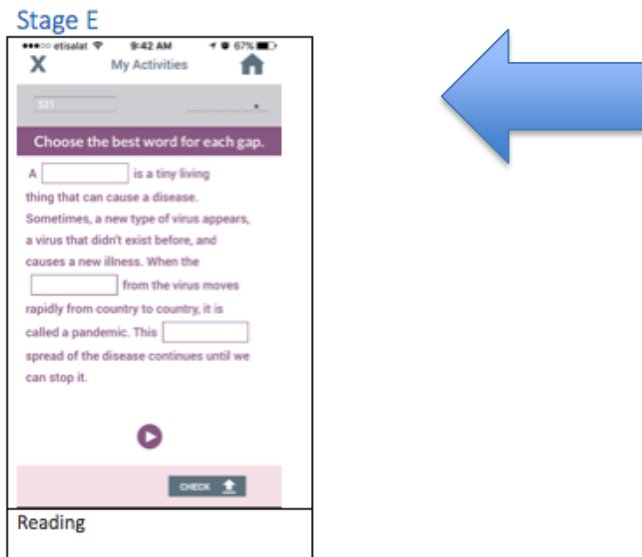
Stage C

 <p>Scrambled sentences Arabic</p>	 <p>Gap-fill multiple choice (2 q's per word)</p>
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Stage D

 <p>Gap fill MC (not all words, 2-3 for relevant)</p>	 <p>MC (not all words, 1-2 for relevant)</p>
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5.8 The future of word lists

While the second research question focuses on how word lists are currently being used in intensive English programs, the final interview question asked about what the possible future of word lists might look like. This was done to see what the interviewees wished for in future lists, what developments might be forthcoming and how the use of lists might change in the future. The first wish was for increasingly specialized word lists based on regional corpora – for the Middle East for example, to help recognize what students in this region have been exposed to and what they have not.

The second wish was for advances in artificial intelligence that are able to identify the different meanings of words based on their context, which could lead definition-based word lists and help prioritize the most frequent definition based on different contexts.

And the final wish was for lists that are increasingly flexible and will change in real time as they'll all be online and data will feed in and constantly update frequency and usage, and this might feed into digital texts and materials, which might have texts change month by month or year by year to help reflect this.

Looking briefly back to the two research questions, we can see that the participants' perceptions regarding the teaching and learning of vocabulary in the context were described at the beginning of this chapter. In regard to the second research question, we can clearly see that there is a broad range of use of word lists across these five programs. Both of these will be discussed in more detail in the following chapter.

Chapter 6: Discussion

While the findings chapter was more descriptive in nature, focusing on detailing the participants' perceptions about the teaching and learning of vocabulary in this context and illustrating what was happening in these programs, this chapter aims to more deeply discuss and analyze a variety of issues raised in the interviews. It will also address the two main research questions with a greater focus on the second one:

- 1) What are the perceptions of teachers and curriculum and assessment coordinators in regards to the teaching and learning of vocabulary in foundation English programs in the UAE? More specifically, what unique challenges and concerns exist and how are these currently dealt with?
- 2) How are frequency-based and other word lists being used in tertiary foundation English programs in the United Arab Emirates?

6.1 Research question 1- Perceived challenges

Along with detailed descriptions of the programs and participants included in this research, the previous chapter also illustrated some of the perceived challenges that exist in the UAE in regards to the teaching and learning of vocabulary in foundation English programs. To summarize, these include a lack of interest in learning English and reading in English or Arabic, insufficient familiarity with academic topics and vocabulary, difficulty working with word forms, a fairly narrow English vocabulary, and substantial problems with spelling. These perceptions

were also supported by some of the information in the context chapter, particularly the lower IELTS Reading scores, which were also reinforced by Dylan: “there’s a real problem with vocabulary, evidenced by their incredibly low reading score in IELTS... it’s the foundation of all problems for the students in our program... the lack of vocabulary.”

According to the participants, many of these vocabulary-related difficulties seem to be similar to those in other countries in the GCC region they have worked in like Saudi Arabia, Bahrain and Kuwait, and these issues were perceived to be more substantial than those in developed Asian countries like Japan and Korea where several of the teachers had taught previously. According to interview data, this contrast might be due to students in those countries having more positive perceptions of English and being more reading oriented, or it may have to do with the well-established educational traditions and systems there.

Whatever the underlying reasons may be, it is clear that, as suspected, vocabulary-related issues are perceived as presenting a sizeable challenge in preparing a substantial percentage of Emirati students to study in English-medium universities, especially in regard to reading and writing. There does not seem to be a unified approach among the five programs for addressing these difficulties, although each program does clearly perceive them as a problem and addresses the problems in different ways, as detailed in the findings chapter.

6.2 Research question 2- The use of word lists in the context

When looking at the second research question of how vocabulary is dealt with in tertiary intensive English in the U.A.E., perhaps most observably, it is clear that all five of these programs utilize a word list in some fashion or another, an important trend in itself, which seems to acknowledge the increasing importance and usefulness of these lists. Indeed, two of the institutions have done months or years of work to create an institution-specific list or substantially modify an existing wordlist to make it suitable for the context. This in itself is also of note as it seems to support the importance of prioritizing and directing vocabulary acquisition using a source other than just the vocabulary contained in course books or in an unmodified external list. Additionally, the three smaller programs and one of the larger ones use Coxhead's Academic Word List for at least part of their vocabulary approach (if not their main focus), and the fifth program makes reference to the coverage of the list. This local dominance of the AWL supports earlier research on the use of word lists in university foundation/ intensive English programs globally which found that the AWL was the most commonly used word list in this type of program (Burkett, 2015).

6.2.1 Areas of interest regarding the use of word lists

The data collected through the interviews present a number of areas that could be analyzed and discussed regarding the use of vocabulary lists in these five institutions. Unfortunately, space limitations necessitate focusing on a relatively limited number of these. The key areas that seem to emerge from the data that have direct relevance towards the research questions are:

- an analysis of how programs use frequency lists,
- the seeming dominance of the AWL and potential problems with its use in the UAE,
- teacher intuition in the customization or modification of lists,
- the use of CEFR related frameworks in conjunction with vocabulary lists,
- the use of software/applications to assist with the vocabulary acquisition process,
- what the development/choice of vocabulary acquisition activities tell us about teachers' and curriculum designers' beliefs about vocabulary acquisition, and
- comments and practical considerations on selecting and using a list.

6.2.1.1 An analysis of how programs use frequency lists

Building on the descriptions from the findings chapter, I would like to suggest that vocabulary list use might be broken down into four interrelated categories- course design, teaching and learning, assessment, and materials development. These categories would likely exist along a developmental continuum of sorts where some aspects would typically need to be established before others could be developed. For example, course design would likely precede assessment or materials development.

One way to visually represent what is being done in these programs is to create a table to show what practices exist in each program (Figure 17), although it must be noted that this simply indicates whether or not something is being done and

cannot demonstrate the quality of the work or extent to which it is being done. It might also be argued that there might be some overlap between categories and that they do not entail distinct elements. However, the variety between the programs' approaches seems to suggest that this is not necessarily the case. It should be noted that this table only includes those usages that were relevant for the study, but certainly more could be provided (e.g. those suggested by Nation (2016) like designing graded reading programs and learning from meaning focused output).

An explanation of the four categories might provide some clarity as to the nature of each and a description of some of the specific examples included in the table will also be provided. After this general explanation, each of the five programs will be discussed in greater detail in respect to the categories identified below.

The first category refers to the overall design of the course or program, which likely exists in a curriculum document. It focuses on possible learning outcomes and the overall goals or priorities within a course or program. This is broken up into two subcategories of short-term and long-term as suggested by Nation (2016). While there is certainly a great deal of flexibility in the definition of short-term and long-term, for the sake of this study, short-term course design will be that affecting a single course, irrespective of what might happen preceding or following that course. Long-term refers to bridging two or more courses, or more likely, for an entire program.

The second category, teaching and learning, encompasses the majority of the day-to-day practical uses of a list with a class. This includes the preparation, dissemination and presentation of material from a student word guide, which may have many formats, but which might typically include a definition, word form(s), and a sample sentence, as well as possible synonyms, antonyms and collocations. This would likely be in the “series approach” (Nation & Macalister, 2010) mentioned in the literature review. The next subcategory is that of deliberate language-focused learning. Nation (2016, p. 175), primarily defines this as using word cards or electronic flash cards, but this definition seems too limited for the range of activities currently available. For the sake of this research, “deliberate language-focused learning” refers to explicit vocabulary- focused learning that could also involve learning words from a list with other word information (as in the word guides illustrated in Program 1) or using an App like Quizlet that has a far broader range of activities and games than just flash cards. The third subcategory under teaching and learning is using a list to “select vocabulary from texts to focus on”. This involves comparing a list with existing reading texts or listening scripts to highlight target vocabulary, likely using an online tool. If unmodified texts are used or if the selected vocabulary in a given coursebook seems less appropriate, this can be done to highlight more appropriate vocabulary from a list to focus on rather than just choosing words or relying on the vocabulary selected by the coursebook. The last subcategory listed under teaching and learning, another suggested by Nation (p.179), is that of “analyzing the vocabulary load of texts.” This means using a text analysis program like Cobb’s Vocab Profiler on his Compleat Lexical Tutor website to

analyze the lexis in a given text that is both on and off the lists. This analysis is used to make decisions about the vocabulary load of the article to decide if it is appropriate or if it needs to be simplified. However, the results depend on the source list that the text is compared to. Nation adds that “text coverage is a rather blunt instrument for carrying out analysis. (p.179)”

The third category focuses on using word lists for assessment purposes. The first subcategory is at least partially related to “analyzing the vocabulary load of texts”, as this is typically a preliminary step to modifying the vocabulary level in assessments. While typically this involves simplifying texts, it can also involve substituting list vocabulary for synonyms or related words in the original text. The next two subcategories deal with two of the main ways that vocabulary from a list is typically assessed in a course, whether as discrete items- in matching with a definition or choosing from a list of options or in context, such as identifying a word within a reading passage or using context clues to understand the meaning of a word in a sentence or longer passage. The final subcategory under assessment using wordlists is to use the results of wordlist-based assessments to inform curricular or teaching and learning changes. This could include spending more time for instruction on vocabulary that is more difficult or moving words either up or down a list in a program if they are found to be more difficult or easier than other lexis on the list.

The final category is materials creation, and this focuses on using the lists to inform the creation of language learning materials. The first subcategory focuses

on using a list to help set the level of materials and is very similar to the use of a list for modifying the level of vocabulary in assessments. The second and third subcategories focus more on where the list-focused materials that are being created will be used whether with a teacher in the classroom or as a stand-alone, independent resource.

Figure 17 - Ways in which vocabulary lists are used in English foundation programs

	Program 1	Program 2	Program 3	Program 4	Program 5
Course design					
setting short term (course) learning goals*	✓	✓		✓	✓
setting long term (program) learning goals*		✓		✓	✓
Teaching and learning					
creating a student resource word guide type document	✓				✓
for deliberate language-focused learning*	✓	✓	✓	✓	✓
selecting vocabulary from texts to focus on			✓		
analyzing the vocabulary load of texts*				✓	✓
Assessment					
modifying the level of vocabulary in assessments		✓		✓	✓
developing discrete vocabulary tests			✓	✓	✓
testing list vocabulary in context		✓			
assessment results are used to create data to help inform teaching and learning**				✓	✓
Materials creation					
setting the vocabulary level of materials				✓	✓
creating vocabulary focused class teaching materials	✓			✓	✓
creating vocabulary focused class independent study resources				✓	✓

* Informed by Nation (2016) p.171-181.

** It was clear that data was being produced, but was not clear if this data had yet informed teaching and learning

To look specifically at how the programs in the study use word lists, we can see that Program 1 uses its list of selected AWL words to help guide teaching and learning primarily for one course in the program, and then not even for all sections of that specific course. Although the approach is well-developed for the course it is used in, with a student-friendly word guide and two types of quizzes to help ensure the vocabulary is learned and recycled, there is no explicit vocabulary strand in the program overall, and it does not cross over the bounds of a single course. Thus, it can be seen as a primarily course-based approach, setting what could be seen as short-term goals (with short-term goals being to pass the course/ achieve the required IELTS score). However, it could be argued that there is also the long-term goal of preparing the students to study in their primarily engineering courses after they exit the foundation program. It is not used to help create materials at the appropriate level for learning (although the quizzes could be seen as an example of this) or assessment purposes, nor is it explicitly assessed in the course, although some teachers do use daily quizzes as part of a teacher discretion grade.

In terms of teaching and learning, Program 2 does something similar to Program 1, but on a larger scale as it uses its list(s) across the program. It essentially uses parts of two distinct lists (GSL/ AWL) to help set vocabulary learning goals both within each course and across the program, thus using the list(s) for both short and long-term learning goals. It also uses the lists for assessment purposes, as

they help identify lexis to test in existing reading texts or to add to texts for assessing the target vocabulary in context. In this program, vocabulary is never assessed discretely, but rather it is always tested in context.

Program 3 is somewhat of an outlier, as it does not use a list per se. Instead, it uses the Compleat Lexical Tutor (Cobb, 2013) to identify AWL vocabulary from existing coursebook texts to create lists of about 90 words a semester to focus on in individual courses, for short-term learning goals. Some online materials are also developed to help with this process. In terms of assessments, this selected AWL vocabulary is assessed discretely in a series of quizzes over the course of the semester.

Program 4 uses its customized list to set both short (weekly/course) and long-term (program) learning goals by sequencing the lexis into lists that build on each other throughout its four courses. It is also used to help set deliberate language-focused teaching by having target lists of vocabulary, although exactly how these are utilized seems to vary from teacher to teacher. Additionally, the list is used for program-wide assessment purposes with discrete weekly vocabulary tests, and it is also utilized to help grade the level of reading and listening assessments and materials by using the Vocab Kitchen's CEFR lexis mapping.

Program 5 also uses its unique list for many of the same purposes that Program 4 does, although not in the same way. While Program 4 uses the CEFR ranking of words to help set the general level of texts, Program 5 requires a certain

percentage of words from the lists that should have been covered up to that point in time. The overall similarities include: setting both long and short term learning goals, creating student friendly word guides, helping with deliberate language focused teaching, informing program wide discrete vocabulary assessment, and helping grade the level of reading and listening assessments and other materials. Program 5 has also utilized their list and examples derived from their list as the foundation for the creation of a multi-platform vocabulary learning app.

This table could ultimately be used to evaluate how suitable a particular list might be for specific purposes or even to specify the design criteria for a new list to ensure that it can be used in a specific way. It could also be used to develop a detailed guide of the steps involved in transforming a list in a foundation English program to something that could be used to actively direct and support vocabulary learning, most likely in a series approach (Nation & Macalister, 2010). This would certainly aid in the goals mentioned in the literature review in both prioritizing the acquisition of the most important vocabulary and helping devise strategies to make the vocabulary-learning load as manageable as possible (Schmitt, 1998). For example, an initial step after a final list is determined might be to create a word guide for students as has been done in Program 1 and in the example detailed in the context chapter (from Program 5). After the lexis is sequenced and specific definitions and context appropriate examples are provided, which would help with some aspects in all three categories of form, meaning and use from Table 1 on page 30 (Nation 2013), this could then be used as source material to

create additional activities, add to online resources like Quizlet or to establish a vocabulary assessment system.

It could also be used to help integrate the way that lists are used throughout a program. For example, once a list was developed and agreed on, course designers could take the specific vocabulary on the list into account when selecting course materials, material writers could work to highlight this vocabulary in a structured fashion in any materials they create, teachers could be sure to stress the vocabulary as they teach it and learners could ensure that they focus on it when they study. Finally, when assessments are written, the vocabulary could be featured appropriately in the assessments. In this way, all of Schmitt's (2008) four learning partners (curriculum designers, material writers, teachers and learners) to work together "to help develop learning programs which are principled, long-term and which recognize the richness and scope of lexical knowledge that needs to be mastered" (p.329).

6.2.1.2 The seeming dominance of the AWL and potential problems with the use of it in the UAE

Similar to other foundation/intensive English programs around the world (Burkett, 2015) the AWL also seems to be the dominant list among the institutions represented in this research, with it playing a significant role in four out of the five institutions, and with an acknowledgement to its coverage in the fifth.

Furthermore, it seemed to be the case that in at least four out of the 10 interviews, the AWL was felt to be the most appropriate list for the context. It also appeared that the AWL was used as a capstone for the highest level course in at least two

out of the five programs, seemingly supporting the underlying structure that Coxhead suggested when she built the AWL on top of the GSL – i.e., the idea that after mastering the most frequent 2000 words, the next step is to master the most frequent academic vocabulary (Coxhead, 2000).

This dominance is perhaps unsurprising in these institutions because of a number of factors, including the academic aims of the programs of preparing the students to study in an English medium environment, the perception that academic vocabulary is an area where these students need additional exposure on top of general vocabulary, the idea that substantial coverage can be achieved by teaching students the word families on the AWL, and the variety of off-the-shelf or off-the-web resources that can be utilized (Praxis, Quizlet, Academic Vocabulary books, etc.).

However, there are a number of issues that question the suitability of the AWL, both for use in an academic environment where three or four of the five programs have a primary focus on engineering and other technical subjects and for use in a country far different from that in which it was initially developed. The first concern is the composition of the 3.5 million word Academic Corpus that the AWL is based on, where 75% of the words come from the disciplines of arts, law and commerce and only 25% from science (Coxhead, 2000) (and these only include biology, chemistry, computer science, geography, geology, mathematics and physics – not all of which are particularly applicable for popular majors like mechanical and electrical engineering). This essentially means that for a significant number of the

more technically focused degrees in these institutions, only some three of the 28 subject areas are directly suitable, which would represent a corpus of only about 375,000 words, a relatively paltry number when compared even to some subject-specific lists like Hsu's English Engineering Word List (2014) with a corpus of 4.57 million words. Furthermore, any words within this 375,000 word corpus that were not common in the other areas would also be removed, further reducing the suitability of the AWL for majors like engineering or other hard science specific areas.

Secondly, on a more cultural note, the fact that 25% of the corpus focuses on law raises additional questions about its appropriateness as the words are selected from a far different legal system than that of the UAE (e.g. levy, - when there is no system of taxation, although a VAT is scheduled to be implemented in 2018) (Patchett-Joyce, 2017). Additionally, the subject areas of politics and public policy under the arts and commerce topics are likely very different in two such fundamentally different countries as the UAE and New Zealand (where the AWL corpus was developed). In addition to issues with cultural and subject-area relevance, there are concerns related to the construction of the AWL and its use of word families as a counting unit.

Because the AWL is built on top of the GSL, and because of the generations of changes in the English language since the corpus for the GSL was constructed in the 1920's, much of the Academic Word List can now be found in general frequency lists (Gardner & Davies, 2013). In fact, using the more modern Corpus

of Contemporary American English (COCA), Gardner and Davies (2014) discovered that 236 of the 570 AWL word families (41%) were located within the first 2,000 words of that corpus, providing further evidence that many AWL word families are not just frequent in academic texts, but actually high general frequency words in English. Additionally, Qi (2016) found that 154 of the 570 word families were represented in the top 2000 word families in the University Academic Corpus, a 72 million-word corpus developed by Qi consisting of textbook and other materials included in course syllabi at eight Canadian universities. In this context, where students are often not familiar with even the most frequent vocabulary, it raises the question of whether the AWL is indeed the most beneficial list or if expanding general high frequency vocabulary would be more efficacious.

Another concern in the supposed dominance of the AWL is its use of word families as a counting unit. A strong selling point of the AWL is that it is supposed to cover roughly 10% of a number of academic corpora (Coxhead, 2000); however, the fact that different word forms like “nation” and “internationalism” and polysemous words like solution (chemical solution vs. mathematical solution) are included in the same family raises serious questions about how knowing several word forms or definitions can suggest coverage of a text, a subject covered in detail elsewhere (Gardner D. , 2007)). My personal experience has been that while students may be able to recognize more simple cognates, they are often unable to make the connection when prefixes and suffixes are added.

Additionally, as evidenced in the interviews by Eddie and others, many students

lack the ability to recognize and work effectively with word forms, especially for less familiar vocabulary. This often means that to effectively learn a word family can be a very different and far more complex process than learning an individual lemma, and that attempts at claiming coverage of text based on word families are unlikely to represent student knowledge of all the items included in the word families.

In a way, the continued use of the AWL even though new lists based on larger corpora have become available might be given as a prime example of path dependency in this context. Path dependency is a concept which “explains how the set of decisions one faces for any given circumstance is limited by the decisions one has made in the past, even though past circumstances may no longer be relevant” (Praeger, 2007). There might be many reasons underlying why the AWL remains the dominant list in the UAE and elsewhere in the world as publishers, software developers, individual teachers, and academic programs have invested substantial resources to develop their own materials based on the list. It should also be added that for its time, the AWL was a significant development in terms of word lists because of its specialized corpus design, sampling of a wide range of academic subject areas, and inclusion of a variety of academic publications including journal articles, book chapters, course workbooks, laboratory manuals, and course notes in its corpus.

However, it certainly seems that the AWL, which is now 17 years old, is no longer likely to be the best choice for this context, if it ever was. New general word lists

(NGSL, n-GSL, Oxford 3000), Gardner and Davies' (2013) new Academic Vocabulary List, or specialized lists for engineering majors (Hsu, 2013) seem to potentially provide more benefits.

6.2.1.3 Teacher intuition in the customization or modification of lists

Another area of interest is the customization or modification of lists, particularly through the use of teacher intuition rather than just taking a list and using it “off the shelf”. There are many reasons why this might be done including not finding an ideal existing list, needing to shorten or extend a list so that it fits an individual course or program, needing to restrict word families or extend lemma based lists to provide more suitable or realistic coverage, or needing to remove inappropriate, less suitable, lower priority or already known words from a list.

Before customizing or modifying a list, the decision to choose a specific list is not one to be taken lightly, as it carries with it many considerations about areas as varied as the students' target needs for the specific course they are in, course/program exit requirements (most typically the IELTS), future academic needs, and presumably their professional needs beyond this. A list also goes hand in hand with many assumptions, such as the suitability of the source corpus, an awareness of what vocabulary should be prioritized, what vocabulary students are likely know already, and the suitability or lack of suitability of a word family or lemma based approach. In fact, to a well-informed teacher or program, choosing a list should come with a full understanding that any list brings both benefits and limitations.

Once a list is selected, there is also the question of whether to use it as is or to modify it for a specific course or program, an issue that does not seem to be discussed in the literature. In three of the five programs, some modification or customization of existing lists was conducted, either by combining lists, restructuring existing frequency-based lists, shortening lists, specifying specific lemmas to focus on within a word family based list, or by removing or adding some lexis to help make it more suitable for the context. In program 5, a more extensive form of customization was taken with the creation of a new list and sequencing the list on a non-frequency basis to make it more appropriate for the students in the context and the specific materials they were studying.

Programs 2 and 3 seem to use lists as is, either in the form of commercial textbooks and online applications delivering the list as a product (2), or in conjunction with online resources like LexTutor to help highlight “relevant” academic vocabulary in existing texts (3), which in a way could also be seen as modifying a list by selecting lexis from a word list to focus on in individual courses.

Looking at the three programs that did choose to modify lists individually provides some insights as to how and why it is being done. In Program 1, two important decisions were made about adapting the AWL for the specific context. Alex, the teacher/designer of the list shortened the AWL from 570 word families to a list of just 350 and changed the focus from a wide-open word family approach to that focusing on a single lemma, with other word forms provided as well. In a follow-

up email discussion, Alex replied that the reason for shortening the list to 350 was that it was the maximum number that could be covered in a single semester, with 44 sets of lists of 8 words per day (with 6 words for the final set). This represents about nine full weeks' worth of daily input lessons, allowing plenty of time for the two associated quizzes, for other exams, project weeks, holidays, etc. as well as days for reviewing parts of the list and activities based on Quizlet Live or Kahoots. A related issue is the question of just how much vocabulary can be reasonably covered in a course, with a specific question, whether eight words a day week after week is indeed achievable and also whether or not the goal of 350 words is actually too restricted given the huge academic vocabulary deficits of many of these students.

When asked how Alex chose which 350 words to cover out of the 570 word families AWL, the response was that while frequency was certainly a factor, and there are more words in the lower-numbered AWL sub-lists (which are the more frequent ones), primarily Alex relied on personal knowledge of which words the students who had taken the previous courses in the program would still not likely be familiar with as well as words that were more likely to appear on the IELTS or TOEFL exams. Alex stated that these decisions were "based on 30 years' experience with Gulf students in bridge programs heading for STEM majors." Brezina and Gablasova (2017) call this "expert-based" as opposed to the other option "usage-based"(p.3). While on paper, frequency-based decisions on a list based on corpora of millions of words might seem to trump an individual teacher; this detailed knowledge of the context, the student profile and their educational

experience up to the point of this specific course would seem to point to definite advantages for the “expert-based” approach, especially when used in conjunction with available frequency information. However, Brezina and Gablasova seem to argue against this approach as one of their final guidelines in principles of vocabulary list creation and use is “Do not rely on your intuition/experience to determine what is useful for learners; collect evidence about learner needs to evaluate the usefulness of a list” (p.4). Clearly this is a more time consuming way of going about the creation of lists, but likely one that might be more effective overall if the general student vocabulary knowledge does not change significantly over time.

The final decision as to which word form to focus on initially was again reported to be primarily frequency, but at the same time, Alex tried to keep an equal distribution of nouns, verbs and adjectives, with a smaller number of adverbs as there was also the associated aim to help raise awareness of the knowledge of word forms, although this approach seems to contradict findings by Stein (2017) in regards to several sets of lists that put the percentage of nouns at close to 50%, with verbs at about 22% and adjectives at about 15%, perhaps presenting students with an unrealistic idea about the balance of word forms. In the word guide booklet, the most common other word forms are also included and these are explicitly worked on through the word form quizzes.

In Program 4, the modification of the existing lists was primarily focused on separating the overly broad CEFR bands of A2 and B1 into A2 and A2+ and B1

and B1+ respectively. In this case, the use of teacher intuition was crowd sourced from foundation program teachers using surveys and statistical software to sort lists of words into the upper and lower part of each band, effectively sequencing the vocabulary into a lower or upper course for the two CEFR bands. This suggests that they believe that the collective knowledge of this experienced faculty would produce a better decision than a single expert or that of statistical data, but may also have implications in terms of getting faculty buy-in on the decision-making. Another way that the program's specifically-assessed vocabulary lists were modified was to streamline them as much as possible and remove CEFR vocabulary at each of the relevant bands that was deemed non-essential. In this way, the vocabulary that was being assessed was deemed vital to know.

After Program 5 created its list based on a combination of five contemporary word lists, it modified its list in two ways: first, by paring its customized, primarily frequency-based list down to the target length of 2600 words, and then following that, by sequencing the lexis between the four courses in the program. It also used student-derived data to help set up the initial 200 word pre-list that even the lowest level of students knew when they entered the program. This helped establish a baseline, and after that, a selection of about 20 teachers were emailed lists of about 100 words and asked to allocate them to either an upper or lower level. This was done specifically for the vocabulary that was based on frequency (as there were multiple sources for frequency data). This seems to be utilizing a

combination of observed student knowledge, “expert” knowledge as represented by experienced teachers, and primarily frequency data.

In their response to Stein (2017), Brezina and Gablasova (2017) state that “the first step in the creation of a vocabulary list should involve a definition of the vocabulary construct that the list seeks to represent” (p.1) and it is certainly not clear that all programs have done this.

6.2.1.4 Teachers’ understanding of student lexical knowledge

An area closely related to having instructors modify existing lists to suit the context that bears exploring is teachers’ understanding of what lexis students typically know when they start a course. Typically, when frequency word lists are used as part of the vocabulary curriculum the lists represent the target situation and the word knowledge goals that the program aspires to have students achieve by the end of the course. However, in reality, a list that is adopted may have no connection at all with the actual students it is being selected for, as there is no awareness as to what students may know when they start the course. While a generic, “off the shelf” list might be suitable for a class of mixed nationality students, as might typically be found in English speaking contexts like Australia, the U.S. or the U.K., it might be less suitable for a more homogenous student population. Choosing a list without a taking into consideration factors involved in what students know when they start a course (e.g., students’ L1, their physical context, their religion, their educational background, the profile of teachers

teaching them, and other related factors) may have many repercussions, a point emphasized by Durrant (2014):

Even novice students of EAP start out with large amounts of vocabulary knowledge;... which is likely to differ from student to student, depending their educational background, first language, and personal preferences and interests. Any analysis of vocabulary needs that leaves these individual factors out of account is therefore incomplete (p.354).

Looking specifically at the programs in the study, in both of the larger programs, teacher feedback in the specific format of voting for/responding to surveys was used to decide whether specific lexis was more or less suitable for a particular level and to help sequence the vocabulary into specific levels of a course once it was selected. This use of “expert knowledge” might seem like a less scientific way of approaching this process when compared to using the sequencing in a list based on million word corpora or by using an external reference such as the CEFR; however, on closer analysis, there are a number of reasons why this makes sense. The first is that a number of factors are shared while living in the same physical contexts. While home life for the typically expat teachers and Emirati male and female students may be very different, there is a shared space in the public sphere represented by life in the educational institutions as well as in the malls, airports, hospitals, restaurants, supermarkets, etc. While this context might seem familiar on the surface level, it is quite different from that seemingly represented by the corpora of the AWL, BNC and GSL. In fact, there does not seem to be an available representative corpus for a similar context, which raises the question of whether the development of a regional corpus might be a desirable or necessary step for a fully representative word list as this would better

reflect the unique cultural mix that happens in global multicultural Middle Eastern cities like Dubai and Abu Dhabi. It would also help account for the impacts of religion on society and the very different climate.

Additionally, through the hundreds of hours spent in the classroom every year, the majority of teachers in these university intensive English programs have a high level of awareness of what lexis students know, where they have difficulty understanding meaning or even with more simple constructs like spelling or use in a sentence. This is partly because the student body is quite predictable and changes relatively little from year to year, so the experience that a teacher has over the course of a year or multiple years helps deepen the awareness of what students know.

On the other hand, there are also some questions that could be raised, namely the fact that although these teachers typically have years, if not decades of experience teaching English both in general and in the region, they typically have little, if any, knowledge of Arabic and a typically surface level understanding of the more observable aspects of Islam (Burkett, 2016). Thus, while teachers might have a decent understanding of what their students *know*, the question is whether they are indeed the best judges of what is most appropriate for students to *learn*.

6.2.1.5 The use of CEFR related frameworks in conjunction with vocabulary lists

While I was aware that Program 5 was utilizing a Common European Framework (CEFR) framework to help direct vocabulary learning (partially because I was involved in helping implement it), I was intrigued to learn that this was also being done extensively at another of the large well-developed programs (Program 4) in the country, and that a CEFR framework was later implemented on a national level when the CEPA exams were transformed into the English EmSAT (UAE Ministry of Education, 2016). Perhaps surprisingly for higher education institutions in the Middle East, the Eurocentric (CEFR) seems to have played an important role in the vocabulary syllabus at the two larger and most developed programs in this study.

While the general adoption of the CEFR might not seem typical in the region, it is no surprise that Cambridge University Press's English Vocabulary Profile (EVP) project (Cambridge University Press, 2015) was chosen by Program 4 and 5 instead of the other options mentioned in the literature review section (e.g., the Word Family Framework and LexiCLIL), as the EVP appears to be the only resource where changes are still being made. Additionally, the EVP offers a far wider scope of resources and filters that allow users to search for a range of items including "what 'food and drink' vocabulary A1 learners know, or which phrasal verbs are known at B2 level "(Cambridge University Press, 2015) as well as student friendly tools like different British and American versions and examples of pronunciation for all entries.

Looking back at the literature, Hosseinfifar (2017) points out the CEFR has influenced curriculum and assessment development at several federal universities and also at the Ministry of Education (MoE), but states that “little research has been published, however, to cast light on how teaching and learning practices are affected and what challenges persist when this framework is used in the UAE context” (p.15). Space does not allow for a detailed discussion of this, but some general relevant concerns for this context include content criticisms (Figueras, 2012) that include questions about the “comprehensiveness and usefulness of the level descriptors for assessment, and their relevance and validity from the second language acquisition (SLA) perspective as well as ideological/ political concerns that question the push for conformity. Specifically, there is the concern about the CEFR developing from “a system” to “the system,” initially raised by Fulcher (2004). Fulcher also raised the question as to why there is a need towards harmony instead of diversity and further notes that “[Harmonization] ... may lead to further political unification by stealth, irrespective of whether the framework is a suitable tool for this purpose or not” (p. 264). This is certainly a concern in the multi-cultural environment in the UAE.

A related concern that emerged and was mentioned in the section dealing with teacher intuition was involved with removing specific vocabulary from the list. Specifically, there is the concern of using the primarily European-based list when transported to a largely Arabic context with a very different physical geography and a different cultural context. This means that something that is extremely common in the UAE like “sand,” is ranked in the B1 band on the EVP, whereas a

“river” which does not really exist in the UAE is ranked as A1, the lowest of the six levels. Likewise, an “imam,” the person who leads prayers in a mosque, one of the most important people in Muslim society is not included in the EVP, whereas “priest” (B1) and “minister” (B2) both are included. It should also be acknowledged that the EVP is certainly just one interpretation of one aspect of the CEFR, and that of a British publishing company with a variety of not necessarily altruistic interests in such a list (marketing, publishing, offering a selling point for their work, differentiating themselves from their competition, etc.). As noted with the examples of the Oxford 3000 and the AWL, these added resources aid in the marketing and sales of books. It seems likely that the Global Scale of English will be another example of this for Pearson, if it is not being used in this way already.

Despite the concerns mentioned above, the CEFR and EVP were chosen in Programs 4 and 5 for a number of pragmatic reasons. The CEFR offers perhaps one of the best-developed frameworks for the acquisition of language and is not limited to English. As such, it provides an external framework unlike anything that has been developed in the GCC region - an interesting comparison is the CEFR-J list, a version of the CEFR that has been specifically adapted for Japan (TONOLAB, TUFS, 2012). Additionally, the CEFR has been under development now for close to 20 years, and is commonly used a reference point for numerous exams such as IELTS and TOEFL, as well as serving to help level language course books by publishers like Cambridge and Pearson that are used by programs in the region. Thus, it provides a common reference point and seems to carry with it a certain amount of external support. Additionally, the EVP is based

on “extensive research” using the Cambridge Learner Corpus and is also informed by the multi-billion word corpus, which certainly adds far more resources and support than any individual institution might be able to offer (Cambridge University Press, 2015). Finally, the fact that the most popular external English proficiency exam at the five institutions in the study is the IELTS , which has Cambridge University as one of its three partners, helps parcel together support behind the choice of the EVP in several of these programs.

In one of the interviews for Program 4, the fact that the CEFR is instructionally tractable, which is of special relevance for assessment, was raised as another important point of support for its use. Basically, this means there is an underlying theory and curriculum containing a learning progression for what comes next.

Forster and Masters (2004, p.65) state that there is a description of the “knowledge, skills, understandings, attitudes or values that students develop in an area of learning in which they normally develop them”. This is beneficial because it helps provide a statistical system for progression and allows for the use of RASCH analysis to underlie vocabulary assessment inside the program. This can also be used to provide information on the order of vocabulary acquisition in that specific context and what items might be more or less difficult for students.

However, as pointed out by Jesse, answering a question correctly only tells us whether the student can answer that specific item and may depend on the question stem, the difficulty of the distractors or other factors dealing with that specific question and does not necessarily indicate knowledge of the actual word, which should certainly be taken into consideration.

Despite these seeming benefits, some practical difficulties utilizing the EVP and the CEFR emerged in the findings. Perhaps the most important challenge in the context of a foundation program in the UAE is the actual size of the word lists that are allocated to each band (or even to each half band). According to the English Profile website, in the B1 band alone, just from A-Pri, there are 2000 individual entries (the number is too large for the search function to show all entries at the B1 level), which would be an overwhelming number to use for a course or even an entire annual program. Indeed, as was seen in the program descriptions above, Program 4 decided to split the bands in half.

Thus, although there are clear advantages to using a system like the CEFR and specifically the EVP to help sequence vocabulary-learning goals, it is not without its limitations in this context, as was seen with the cultural differences and the huge vocabulary loads included in each CEFR band. Combined with a frequency list, it might even help approach one of Stein's (2017) suggestions in pursuit of an optimal core vocabulary "in which statistical text frequency is combined with functional relevance" (p.4-5).

6.2.1.6 The use of applications to assist with the vocabulary acquisition process

The next area of interest is the widespread practice of using online vocabulary resources to help with vocabulary acquisition in these programs. Because of the high-tech educational environment of tertiary institutions in the UAE, especially in

the three public universities, which were the first in the world to embrace the use of iPads in their foundation programs on a national level (Swan M. , 2012), one might expect a natural inclination to use online resources to support the learning of the words on a list. However, one surprising finding was just how varied the use of online applications was in these five programs.

While there was a wide range of applications utilized in these programs, Quizlet seemed to be the one near-universal resource, with teachers at each of the institutions seemingly creating customized lists and definitions for each program. A more complete list of additional online resources used includes Vocab Kitchen, Vocab.com, Spelling City, Praxis, and the institutionally designed and developed vocabulary learning application mentioned in Program 5. Some institutions, and teachers within the institution, also used multiple apps simultaneously, perhaps in an attempt to engage students, but it certainly seems debatable whether this effort might be better devoted to focusing more on depth rather than repeating similar exercises across different platforms.

This plethora of apps to assist with vocabulary learning is perhaps no surprise and in general, it can certainly be seen as a positive development in many regards as it helps guide and extend lexical learning outside the classroom in a way that was perhaps not possible previously. It should be mentioned that there are a number of other ways of learning vocabulary outside the classroom that have been addressed in the literature such as video games (Derakhshan & Khatir, 2015), watching television and movies (Webb & Rodgers, 2009) and listening to

podcasts (Meier, 2015); however, these are very different than the more planned, targeted vocabulary acquisition with multiple activities and the chance for revision that is possible using an app.

The use of these apps directly addresses several interviewees' concern that there simply was not enough class time for all the vocabulary learning that needs to take place in order for students to be better prepared to study fully in English. It also raises awareness of tools that allow more self-motivated students to extend their learning beyond what happens in the classroom, though in my personal experience, this does not seem to be common.

In general, these vocabulary-focused apps have a wide variety of games, flashcards, spelling focused activities, and quizzes for self-assessment. In the case of some premium versions like Spelling City, which was being used by Program 5, they also provide the ability to track student progress and receive data about what students have learned, what lexis they are having difficulty with, and which students are actively using them. This data can help guide the teaching and learning that happens in the classroom.

This trend towards "farming out" the teaching of vocabulary to online applications is not without concerns in this context, for a number of reasons. These include the facts that the context does not allow many opportunities to use academic language outside the classroom, the students are primarily used to very teacher-directed learning, the large vocabulary learning loads, and the primarily receptive

nature of many of the activities on these apps. Finally, unless teachers are aware of specifically what vocabulary is being covered in these applications in the program and are willing to reinforce it in the classroom, it can create a disconnect between what is happening in the classroom and the app-directed vocabulary learning.

Dylan pointed out that “outside the classroom, they’re not really using the vocabulary that they’re learning”, a common problem in EFL environments, and especially a problem when the students “are taught in the old-fashioned way” and are “given the vocabulary but it’s not repeated.” This is evidenced by the fact that, while students may regularly use English outside the classroom in malls, hospitals, shops, etc., this is more general use and they are not regularly exposed to academic English. It is a foreign part of a foreign language that seems to have no real place outside of the confines of certain classrooms, a problem that Huang (2013) shows that it is not just limited to second language learners in his article “Academic English is No One’s Mother Tongue”. This problem is exacerbated by the fact that, as Dylan mentioned, the students “don’t have the study skills to self-motivate themselves to learn and retain vocabulary.” Therefore, even if they learn the vocabulary in class, they do not continue to encounter it enough to retain it. Therefore, if teachers expect the students to learn and retain vocabulary independently or expect students to do so because of experiences in different contexts, they might well be disappointed.

Also, as mentioned in the literature review and context chapters, there are typically dramatic vocabulary deficits in regards to the amount of vocabulary that students are supposed to know in order to be able to read university level materials. As such, in some cases, for example in Program 4, students are given quite extensive lists of vocabulary for an 8-week course. Clearly, some students come into the course knowing a good deal of this vocabulary, and for these students this larger list may be empowering by reminding them how much vocabulary they do know, but for lower level students, these extensive lists may be overwhelming and demotivating, especially if they are supposed to deal with them on their own.

The primarily receptive nature of many of these activities is also something that needs to be considered. While apps like Quizlet that simply match a word with a definition or focus on the spelling and pronunciation of words are certainly a boon for students and help increase their passive vocabulary, it should be noted that students cannot be expected to be able to use this lexis effectively in speaking or writing without practice, which may mean that the types of classroom activities need to be more focused on bringing this passive vocabulary into the active sphere.

It should be mentioned that bringing passive vocabulary knowledge into fully active knowledge is not a simple endeavor. Nation (2013) discusses this issue at length and states that “in all of the studies, learners’ vocabulary size as measured on the receptive test was larger than vocabulary size as measured by the

productive test” (p.270). Nation points out that productive vocabulary use needs substantially more knowledge and in order to move vocabulary into productive writing use teachers may wish to start with writing activities with a great deal of teacher control and move towards those that involve more learner choice (see pages 271-276 for more on this).

This, along with other factors, raises additional questions about the role of the teacher in the vocabulary learning process, especially when some aspects of the vocabulary learning process are delegated to third party resources that individual teachers may have little interest in or awareness of or are that are directed entirely by an application outside of the context of the academic program. As Dylan mentioned, this presents problems for recycling and reusing “when the teachers don’t have a good take-up on what they need to do with the vocabulary.” When teachers expect students to learn independently and do not play an active role in raising awareness of when and how these words from a list are used, a palpable disconnect is created, especially if the students are encountering different vocabulary on a day-to-day basis in their other course materials. Additionally, teachers also need to be cautious because there are online resources that are not created by teachers from the region or at least ones who are sensitive to what is “haram”, or inappropriate in this context (subjects like dating, music festivals, alcohol, partying, pre-marital sex, etc.).

6.2.1.7 What the development/choice of vocabulary acquisition activities tells us about teachers and curriculum designers' belief about vocabulary acquisition

A wide range of beliefs and priorities about what is involved in learning and “knowing” a word was evident in the data gathered from the five programs, especially when it came to the vocabulary learning and assessment activities that the programs developed or utilized. As detailed in the literature review section, “knowing” a word is not a simple endeavor; a great deal of knowledge is required, including, but not limited to additional definitions, spelling, pronunciation, word forms, collocations, and register. The range of beliefs and practices involved in helping students acquire vocabulary from a list in these five programs reveals a number of underlying issues including a wide variety between program resources dedicated to designing or focusing on vocabulary acquisition, the impact of individual teacher initiative, a disconnect between vocabulary instruction and assessment, and specific program concerns regarding materials developed.

While all of these programs essentially aim towards very similar goals, the resources devoted towards vocabulary in each program range from the efforts of several teachers for their classes alone, to almost entirely outsourcing it using financial resources, to dedicating semesters or years of work and teacher release time to create a substantial vocabulary strand with contextualized materials (Brezina & Gablasova, 2017).

Although it is difficult or even impossible to quantify with any accuracy, Program 5 seems to have devoted the most resources towards vocabulary. They have

allocated more than a year of combined teacher release time towards creating a unique list (which I was heavily involved in), several more years of teacher time towards creating context-appropriate learning materials for the list, as well as additional financial resources towards hiring an outside company to develop their app – any of which might be unlikely or impossible in some less resourced programs. They have clearly identified vocabulary as one of the key areas of concern and have seemingly devoted more resources to it than to other areas of the program, possibly partly because of a university-wide mandate to increase mobile learning resources.

As mentioned in the findings chapter, Program 2 chose to use existing free or paid online applications or resource materials by buying vocabulary themed books and paying for memberships to the online vocabulary-learning site Praxis. This approach of selecting and purchasing what appear to be high quality vocabulary resources has both positive and negative outcomes. For institutions with the financial resources to do this for each student (this was the only for-profit university in the study) this option certainly provides a clear, transparent, professional resource with a ready-made context beyond simply a list of words, where the two independent resources could be linked together to support each other. It also has the advantage of needing minimal faculty time to adapt the resources. However, there are certainly a number of limitations, including as mentioned by Eddie, the fact that these materials are very contextually bound to the United States with topics that may have little or no connection with the learners, like housing or extracurricular activities. This not only raises obvious

concerns like cultural appropriateness, but also raises issues about whether letting a book choose the vocabulary you wish to focus on is the best way to go about it. There is also little choice about activities and especially in the case of the print book, a real lack of flexibility in terms of sequencing materials. It is an example of an option that is available if it is not possible to develop materials in house, but instead uses financial resources to accomplish the same goal.

Program 3 seems to have the least developed vocabulary strand, the only one without a specific comprehensive list to guide teaching and learning on either a course or program level; however, by opportunistically using the AWL to help choose vocabulary to focus on from an existing context, there does seem to be an emphasis on the importance of learning vocabulary from context. However, in the program overall there does not seem to be a great deal of evidence for this, as vocabulary is dealt with differently by individual teachers in different sections of the same courses. Once the lexis is selected, it is put into a number of online platforms, seemingly so students can choose the one they prefer, but is not clear whether this adds depth to the instruction or just provides alternative platforms with the same lexical information. This is an example of perhaps the least resource intensive version and where a standardized approach to vocabulary acquisition has not been utilized. It was also the program with the smallest number of teachers and was the newest of the institutions in the study, which raises questions about what resources are needed for the development of a vocabulary-learning strand.

Sometimes the efforts of even one informed, motivated and knowledgeable teacher is able to make a significant difference at a course or even a program level. In the case of Program 1, it was the efforts of Alex, who saw a specific need for developing vocabulary support materials based on the AWL. This was done for very pragmatic reasons as the students needed to broaden their receptive (primarily reading) and productive (mostly writing) lexical knowledge to help them succeed on the TOEFL and/or IELTS exams, and to help prepare them for their future engineering studies. Independently, and without additional release time, Alex created the extensive series of resources, which were adopted by some other teachers and then by the majority of teachers in certain courses, thus positively impacting a large number of students in the program. This was done primarily for the students in Alex's own classes, but ended up having a very positive effect overall on parts of the program. At a previous institution in the GCC, Alex had worked for several years helping write and pilot an 800+ page, 4 volume, set of vocabulary books that were used for a number of years, which likely was part of the impetus for the creation of this resource.

It is clear that while vocabulary is certainly acknowledged as one of the key areas for students, the actual resources devoted to it vary widely depending on factors including teacher interest, experience and knowledge, available financial resources, the use of teacher time, especially during slower parts of the academic year, and overall program goals. There also seemed to be a greater level of knowledge about vocabulary acquisition theory in the programs with more

developed programs, although it is impossible to say whether this is the cause of the development of the vocabulary strand or as a result of it.

Moving to the relationship between vocabulary learning materials and assessment, perhaps the most noticeable observation was the fact that vocabulary-learning activities generally showed little or no relationship to the way that vocabulary was assessed. Program 5 had the most robust vocabulary learning system, but the assessment did not seem to be at the same standard, and was overall quite focused on passive recognition, with some courses only assessing word knowledge by having students match a word with its definition. While other courses in the program, particularly at the higher levels, did have more developed assessment systems, none came even close to the standard set for vocabulary learning, which included raising awareness of common collocations. In addition, while the learning activities actively worked to recycle the lexis, this did not happen for assessment; basically, once a word was tested, it was never revisited. While this may have to do with the very ambitious pace of the program, it seems quite contrary to the principles set up in the vocabulary learning focused part of the program. Thus, while Program 5 is a good example of one that prioritized vocabulary learning, it had not prioritized vocabulary assessment to the same level, and this was evident in the disconnect between the two.

Program 4, the other large program with very well-developed vocabulary learning goals put a great deal of effort in developing an extensive CEFR-based list for

each of its four levels and in prioritizing the weekly assessment of the vocabulary on the list throughout the program. On some level, it actually seemed to prioritize the standardized assessment of vocabulary across the program over the development of learning resources outside of the development of the institutional list. Clearly, this helps reinforce the importance of vocabulary in the program. However, as the vocabulary assessment is primarily receptive and focused on choosing the correct word from four options to put in a sentence, without even a focus on spelling, it is unclear how important areas such as depth of knowledge and ability to use the lexis are. Furthermore, although there is considerable online support, how the vocabulary list resources are exploited is left up to the teachers, so it is difficult to tell what kind of activities are preferred. This is just another example of the lack of continuity between vocabulary instruction and assessment, and the clearest example of an exclusive focus on meaning in regards to assessment, but this may partially have to do with the use of a learning management system across a number of campuses to standardize vocabulary assessment. On one hand, this may be understandable in regards to assuring a fair, transparent assessment system across a very large institution, but it does raise the question of which is more important- developing robust vocabulary learning materials to actually help students learn more easily or having a standardized assessment system, as both of these require substantial resources to establish.

By utilizing outsourced vocabulary materials with purchased books and the Praxis software, Program 2 has an explicit focus on discrete vocabulary in terms of

instruction. However, this learning style seems to counter the program's practice of only assessing vocabulary in context on reading exams, partly in order to reflect the type of questions that students will see on the TOEFL or IELTS exams. As such, this is another example of a seeming disconnect between the instruction and assessment.

Program 3 also does not seem to use a standard approach to vocabulary assessment, and the assessment practices seem to focus primarily on receptive, meaning based activities, with the exception of spelling. Many of the practice activities were provided on online platforms or print out activities based on these online resources and did not seem to model the assessments used in some courses, though the teachers may have done different activities in class.

Program 1 probably had the closest similarities between the vocabulary learning materials and the fashion in which the vocabulary was assessed. It utilized a variety of vocabulary assessment, some of which was standardized for individual courses and was largely based on vocabulary from coursebooks, and some of which was done for individual courses utilizing the AWL list materials presented in the findings chapter using teacher discretion grades. In some cases, these assessment materials utilized the exact same sentences used in the example sentences in the word information books, which would certainly reward students that study these materials, but this also raises the question of whether the actual knowledge of these words is being tested or just familiarity with the existing sentences.

This seeming disparity between the teaching of vocabulary and the assessment of whether or not students have learned the vocabulary in the majority of the programs raises the question of whether it is practical or even desirable to have the assessment system reflect the learning materials. It does seem that, with the exception of spelling and in some programs, word forms, the majority of the assessment is based more on passive recognition and not on using the vocabulary. However, a number of the programs also assess vocabulary indirectly through writing on IELTS or TOEFL type writing tasks (e.g., on the grading rubric) in terms of range of lexis and general usage, though in general this does not seem to be reflected in the vocabulary learning materials and is generally not related to specific vocabulary that has been taught. Perhaps this type of vocabulary instruction might be more visible if the writing strand in these programs was analyzed in more detail to see what is specifically focused upon. Overall, one point of observation from personal experience is that if certain aspects of vocabulary are not assessed, students quickly pick up on this and put less focus on these specific aspects. Thus, it would seem to be beneficial to assess whatever aspects are taught.

Two areas of specific concern in regards to learning materials came out of the interviews as well, one in regards to having a lock-step structure for vocabulary materials in Program 5 and the second about including sufficient information in the word information booklets in Program 1.

When asked how successful the piloting of the vocabulary app had been for Program 5 at the end of the 2016-2017 academic year, one email comment from Gray indicated that, while the piloting of the app went well overall, the program “quickly decided that they needed to open it all up for students rather than forcing them to go through a linear sequence.” In the pilot version, students had to complete each activity before being able to progress to the next stage, and while this was done to achieve certain learning goals, the students disliked the restrictions on what they could do, and preferred to focus on the more engaging activities, including spelling based ones. This raises the question of whether students see the value in going through all of the steps or whether they prefer to focus on the more entertaining ones or if there are certain ones that they find to be more useful.

Another issue that arose from the interview with Casey, who worked in Program 1 and is a native Arabic speaker, is that there needs to be a fair amount of explicit information given in the word guide books, especially when it comes to definitions and word forms. Casey raised the specific concern of students adding Arabic translations to match English words in an earlier iteration of the vocabulary notebooks. He claimed that roughly 50% of the students had numerous errors in putting the correct word forms and that other students would simply take the first definition that they found in the dictionary, even if it did not match the specific context. In responding to a follow up email with a request to clarify this topic, Casey explained that the students “would receive a partially filled table with parts

of speech and they were often asked to fill it out on their own. The translations they added in Arabic almost never corresponded to the correct part of speech.”

When asked why he thought this was the case, Casey replied that:

Bilingual dictionaries can be good/useful but the students just copied the first Arabic word they spotted. I do not think they had the linguistic proficiency required to find the correct translation (e.g. which part of speech or which meaning according to context).

Due to these points, Alex felt quite strongly that it was essential to provide a specific definition (or definitions) as well as a focus on word forms, which still presented numerous challenges for students, and this was the impetus for the second set of word form quizzes illustrated in the findings section.

Overall, the primary vocabulary focus of most of the programs is seems to be on increasing students' knowledge of definitions of new, primarily academic vocabulary, thus increasing their receptive vocabulary. While typically targeting reading, it certainly is not limited to this as spelling is a focus in most of the programs. Although there was relatively little focus on productive vocabulary, at least in relation to the vocabulary from lists, this may be something that is focused on in more depth in writing classes as part of the drafting process. The differences between vocabulary instruction and vocabulary assessment in these programs certainly raises questions about whether this is done for pragmatic reasons or because of a gap in practice and theoretical understanding between the two.

6.2.1.8 Final comments on choosing and using a list

While there was a great deal of data that came out of the interviews and much was learned about the use of vocabulary lists in the five UAE institutions, this section will focus on six main areas and what they mean for the development and appropriate use of vocabulary lists. The key areas are: the practice and purpose of using a list, the unit for counting (i.e., how a “word” is measured) selected to be utilized in the list, the importance of ensuring the list is context appropriate, the size of the list, the resources required to make the list work and potential areas for improvement.

6.2.1.8.1 The practice and purpose of using a list

It seems evident that, for foundation programs in the U.A.E., the practice of having a word list and prioritizing the acquisition of more frequent general or academic vocabulary is well in place. For the larger, more established programs, the practice is quite well developed with a distinct lexical strand that runs through the entire program and clearly defines the expected lexical progress for each level in the program. It is also clear that the main purpose of the lists that are utilized across the five programs is to improve receptive vocabulary, primarily academic vocabulary to help students cope with the significant reading demands both in the program in the future and to help perform successfully on external exams like the IELTS. It would be interesting and valuable to see how a more productively focused list like Paquot’s (2007) might fare in this context and whether or not this

would be more successful, but certainly if the main aim is to improve receptive vocabulary for reading, then the purpose of the list needs to match this.

6.2.1.8.2 Word lists or lemmas or something in between

It also seems that there is an acknowledgement that neither word families nor lemmas provide an appropriate option for a meaningful counting unit in the context, as lemma-based lists are too restrictive, and students are unable to recognize and use word forms adequately (e.g. Casey, Eddie). Thus, a “complete” word family approach would be unrealistic. There have been efforts based on using the CEFR to limit the number of definitions or word forms that students are expected to know. For instance, Program 5 uses the idea of “restricted word families” based on a modified version of the EVP up through B2, and Program 4 utilizes different definitions where appropriate as provided via the EVP up through B1. Program 1 uses a different approach and focuses on a limited number of definitions and the most common or useful word forms. There does not seem to be any literature on how a *limited* or *restricted* word family would be defined, but other lists like the Oxford 3000 combine some word types like adjectives and adverbs into the same unit, which could be described as another quite transparent “restricted” word family approach. While this potentially variable approach of using just some part of a word family would be noticeably more difficult to define, quantify and use to analyze coverage on corpora, it is certainly more learner friendly, and likely more suitable for students in the region to begin to acquire vocabulary without getting overwhelmed by unrealistic expectations to know all of the word family. However, it would require a substantial modification

of an existing word lists as well as the development of student and teacher support materials.

6.2.1.8.3 A preset list is not the solution

Following on this, it seems obvious that just choosing a word list from a book, journal or online list is not ideal in a region like the UAE, and especially at primarily Emirati institutions with a single student nationality. Adapting it for the context provides substantial benefits including focusing on the vocabulary that is most useful for the region, both physically (geography, weather, etc.) and culturally (religion, family, government, etc.). It is also clear that some resources need to be developed/purchased for activities to put the vocabulary in context, as just having a list is often not enough. However, purchasing books that are designed for another context, as Program 2 has done, has dangers in terms of cultural inappropriateness. Thus, it is important to realize that time and a clear vision of what changes need to be made need to be directed towards making these adjustments and time should be allocate for this customization.

6.2.1.8.4 The size and scope of the list

Another observation is that there seems to be two general categories in terms of the size and scope of the lists. In two of the three smaller programs (1 and 3), the lists are smaller, and seem to be primarily focused on individual courses without a consideration for what students are expected to necessarily know prior to that course or even if there is a continuity between courses in the program as was the case with the 350 AWL words specified in Program 1. Program 2 is similar to

Programs 1 and 3 in that it does not seem to have expectations about what students know prior to the course, but there is a bridge of sorts between the courses. On the other hand, in Programs 4 and 5, the lists are substantially larger, covering thousands of words and are designed to be all encompassing and as such, present a tractable, developmental model of what vocabulary students are expected to know at each level of the program, whether this has been taught explicitly or not. These two programs have much longer lists for each course that may very well present impossible learning loads, but students may begin the program already familiar with a number of words on the list. This developmental model appears to have noticeable advantages in regards to leveling reading texts, listening passages, and assessments as it is very clear what vocabulary students should be aware of by either using a specific list or a categorization scheme like that of the CEFR.

6.2.1.8.5 A list is not enough – the need for related learning materials

Developing or choosing other materials to support a list also seems to be a necessity, and as Gray emphasized, it needs to be transformed into suitable learning materials. As previously mentioned, there is clearly a wide scope of resources in these programs, and decisions need to be made about how much materials development is feasible or desirable as well as how much work students can realistically be expected to do in a day or a week or over the period of a semester, all of which may be highly variable depending on the type of course. Additionally, in some of these programs students have other course requirements they need to fulfill.

An additional difficulty regarding the use of a list and supplementary materials is trying to align the materials in the curriculum with the list in order to have the lexis appear on the list at around the same time as in the course-book or other materials. Clearly, this has a number of benefits including repetition and seeing the lexis in context. The challenge with this, as was raised in two of the programs (4 and 5), is the desire to keep a list static so that development of materials and assessments does not need to be redone, even though concerns may arise with regard to sequencing vocabulary within the list or within specific courses. The challenge about having these appear parallel to each other is that, inevitably, the materials used in a course will change and then it needs to be decided if the list should change to reflect the changes in materials. This is clearly a concern because if the list changes it can require tens or hundreds of hours to adapt existing materials or create new ones, so it is certainly desirable to try to avoid making changes and not rush to release a list that may need immediate revisions or adjustments.

6.2.1.8.6 Areas for potential improvement in the use of word lists

As an exploratory study, the aim of this research is to describe the practices existing in this context and not to try to rate the approaches used in each of the cases or to analyze each of them in detail. However, it does seem appropriate to provide some general suggestions in regards to some areas of use following on the points presented above that could be applied to one or more of the cases in this study.

1. Simply providing an institutional or course list of most frequent vocabulary for students is unlikely to produce effective vocabulary learning. As Gray mentioned above, some kind of learning materials need to be developed to help direct the learning and establish what word knowledge is to be expected in a particular course. Thus, it is recommended to have some sort of resource with standard word information that helps set a baseline for what students are expected to know including information like specific definitions covered as well as some practice material.
2. While some of the programs utilize resources that actively review and/or recycle vocabulary from a list, others seem to pay little or no attention to this important point or simply leave it up to the student or the instructor. As such, if long term learning of the vocabulary is the goal is to have it is important to have a substantial amount of repetition, ideally spaced out over shorter and then longer periods of time (Nation, 2013).
3. The sheer load of vocabulary covered in several of the larger programs – 500 or more lemmas or word families over a 15 to 16 week semester seems unrealistic. While the number of words a learner can acquire in any given time is highly variable due to factors like motivation, inherent ability and available resources, these numbers seem high. Research with 166 high school and university students studying in Taiwan (Webb & Chang, 2012) found that over two 15-week semesters the vocabulary growth ranged from 18 to 430 words a year. This led the authors to

suggest a possible learning goal of 400 words a year, which is less than the target for a single semester in several programs in this study. While it is difficult if not impossible to compare learners in different contexts at different levels of language proficiency, it does seem to be a very ambitious target if all or even most of the vocabulary on the lists is indeed new to some of the learners. Therefore, the size of any list should be evaluated for size and practicality.

4. While it seems that most of the use of vocabulary lists in these programs is focused towards acquiring passive knowledge for reading and listening comprehension along with the ability to correctly spell and pronounce the words, it should be emphasized that moving beyond to be able to fluently and accurately use the vocabulary is an entirely different task. As such, if it is expected that the learners will be able to use the vocabulary from the lists productively, then resources need to be developed to aid them with this process. It may even be beneficial to have a smaller part of a list that is targeted for productive focus.
5. Especially in a context like the UAE, it is likely that some modification of any existing list may be required as has been done in several of these programs. As mentioned earlier, this may be necessary in order to respect the culture or religion or to more accurately represent the local culture or geography.

6. Finally, having a list that represents an independent vocabulary strand that does not connect with the rest of the course materials is less than ideal, does not allow for more contextualized exposure to the vocabulary, and limits the ability to review and recycle the targeted vocabulary. It may also make it appear that there are two sets of target vocabulary, the vocabulary in the course materials and the vocabulary in the list. While it is likely impossible to ensure 100% coverage, there should be as much cross over as possible.

Chapter 7: Conclusion

Since I began researching the subject of word lists intensively some four years ago, it has become clear that the topic has experienced a renaissance of sorts, with Nation's 2016 book, *Making and Using Word Lists* being published, along with at least 35 new word lists from 2013 to mid-2017. As such, these recent developments have emphasized the need for a greater awareness of what is being done with these lists, in order to highlight some excellent examples of practice, provide options for programs to consider and to stimulate further research on how these lists are being used in a variety of English programs around the world. Thus, the aim of this study was to address how vocabulary lists were being used in university Foundation English programs in the UAE and the findings of this research should help raise this needed awareness and provide guidance for making effective use of vocabulary lists for teaching and learning. In this conclusion, I will highlight the contributions to knowledge, discuss the implications for practice, identify some limitations of the research and present some potential areas for further research.

7.1 Contributions to knowledge

The first main point is that in all five of the foundation programs studied, which varied considerably in size, courses offered, and academic focus, insufficient vocabulary knowledge, especially academic vocabulary, was reported as one of the most significant problems that students faced. Closely related to this, was the fact that word lists play a vital role in university foundation programs in the UAE. All of the programs in the study utilized some sort of frequency list to help

inform vocabulary instruction in their program, with the AWL being the most common by far, as evidenced by its use in four out of the five programs. Exactly how lists were used varied widely across the programs, with the smaller programs using them in a variety of ways, such as to help inform the selection of vocabulary to focus on and to serve as the foundation for a culled list of more important academic vocabulary for reading exam preparation. The larger and more well established programs use substantially more extensive and comprehensive lists that set basic expectations for what students should know when they enter the program, to track vocabulary development through the program and to serve as a basis for setting the difficulty level of assessments, among others.

After acknowledging the importance of vocabulary acquisition and the use of word lists in the context, it seems appropriate to move to what is perhaps the key contribution of the study - the one that directly answers the question of how vocabulary lists are being utilized in these programs. The consolidation and categorization of the data resulted in an original contribution to the field in the form of a table (see page 189) that divides the uses of vocabulary lists into four categories: course design, teaching and learning, assessment, and materials creation, with sub-categories of each. This table offers a new way to evaluate and categorize the use of lists; possible uses are listed in the implications for practice section directly following this section.

Another key finding was the observation that in the two larger programs, the Common European Framework (CEFR) was used in conjunction with frequency vocabulary lists to help set expected vocabulary learning for courses. This is something that has been suggested in the literature, but does not seem to be have been detailed in practice, especially with specifics about how this is put in place. While a great deal has been written about vocabulary frequency lists and the CEFR separately, there appears to be a dearth of literature discussing the two together, and it emerged that in practice there were some pragmatic combinations of the two resources. By using frequency data from lists to help identify lexis that is more important and by using the CEFR to map out some expectations of what needs to be learned at different levels in the program, a combined approach can be utilized. This certainly has limitations, and while the CEFR is by no means a universally approved framework, it has become the most commonly referenced document upon which language teaching and assessment has come to be based, and as such may serve as a valuable resource.

Another point that was observed is that teacher intuition was used in three of the five programs to modify or even create new lists to better serve the students in the specific context. This is something that does not seem to appear in the literature, which primarily focuses on creating objective lists and offering general suggestions for how to use the lists in practice. These changes were made for a number of reasons including shortening an existing list to make it more manageable, removing vocabulary that was less suitable or even inappropriate for the context, and restricting word families or extending lemma based lists to

provide more suitable or realistic coverage. The actual modification done was sometimes driven by frequency data, but teacher knowledge of the student profile, the context, and their awareness of the lexis that students already knew were also key drivers of these modifications. In the two larger programs, larger numbers of teachers were effectively crowdsourced in order to provide feedback on the leveling of vocabulary as well, both between courses and between higher and lower sections of CEFR bands (e.g. B1- and B1+). However, the list modifications made in the smaller program were all due to the input of an individual teacher.

The seeming dominance of the AWL in the context of the UAE and a number of problems associated with the use of this specific list was another important finding to address as it highlights a number of the concerns related with the use of this list. It also suggests that, along with other points, other, more modern alternatives are likely to be preferable. General problems with the AWL include areas cited in other studies including its age, the claim that it is a “general academic” list and thus equally applicable to a range of academic programs, the use of complete word families as a counting unit, which is convenient for achieving larger coverage, but not something that corresponds to learner comprehension, and the fact that it is built on top of the GSL. The discussion here adds additional reasons why it is less than ideal for the context of English foundation programs in the UAE. These include the relatively paltry part of the corpus including academic subjects closely related to engineering, which is a popular major in the UAE, making the list less suitable for institutions offering this

major. Also, the differing legal system of the UAE when compared to New Zealand, and the noted difficulty of working with word forms both are concerns in this context. Overall, it can easily be argued that the 17-year-old AWL is no longer likely to be the best choice for this context, with newer general word lists or discipline specific word lists being available.

Another key point is that online applications are being used in all five programs to help students acquire vocabulary, including the creation of a multi-platform mobile app dedicated towards vocabulary acquisition based on a unique institutional list. Although it is a point that once again does not seem to be in the literature, in the generally high-tech learning environment of universities in the UAE, it was no real surprise to learn that all of the programs in the study used some kind of online resource to help assist with vocabulary acquisition. What was perhaps surprising was both the breadth of resources used and a multi-year effort in one of the programs to create the previously mentioned multi-stage institutional vocabulary app, based on an institutional list and with the ability to track students' vocabulary learning and recycle lexis that needed greater attention. The breadth of resource ranged from paid online to institutionally created to free online resources. It was unclear how helpful some of these applications were, and most of them seemed to be primarily focused on spelling and receptive knowledge – matching vocabulary with definitions, for example.

This fact that there seems to be a greater focus on more receptive vocabulary acquisition activities connects with the penultimate topic of the discussion

chapter, namely that of what the utilized vocabulary acquisition activities tell us about teachers' beliefs about vocabulary acquisition. As suspected, there were a range of beliefs and practices here, with a general, though not exclusive pattern of focusing on increasing students' receptive vocabulary to help improve their reading skills. One interesting point was that, in general, the way that vocabulary was assessed in the programs generally did not coincide with the materials that were used to teach it.

The final contribution consists of several points about choosing and using a list. The first was that from a vocabulary learning perspective, neither of the two typical counting units utilized in the construction of frequency lists, word families and lemmas, seem to be appropriate for this context. A list based on lemmas is too restrictive and does not account for learners' ability to recognize obvious members of word families (e.g. slow (adj) and slowly (adv)), whereas on the other end of the spectrum, word families are also not suitable as students have difficulty both recognizing some word forms that are considered to be in the same family (e.g. constitute and unconstitutional) and producing even much simpler different members of the same word family accurately. As such, as part of my work in Program 5, I suggested a new counting unit of "restricted word families," where the word family is restricted to specific word forms based on the CEFR or some other method, and this was adopted into their list resources and continues to be utilized. A second observation had to do with a dramatic difference between the size and the scope of the lists used in the two larger and the three smaller programs. The larger programs had much more complete lists and mapped the

expected vocabulary development throughout the entire program, whereas the smaller programs had shorter and more course-specific lists. Likely, this also has to do with the additional resources available in the larger programs and the more developed nature of these programs.

7.2 Implications for practice

This study makes seven key points that should have implications for the use of word lists in this type of program as well as others.

First, for new programs or existing programs with a less prominent vocabulary strand, this study may help promote the importance of planned and focused vocabulary acquisition, which would be especially useful for a population of students for whom reading is not a typical leisure time activity. Thus, this raised awareness could help direct similar language programs to have more focus on teaching students the most useful lexis.

Second, the table created as a result of the findings (see page 189) can now be used as a tool to help evaluate how vocabulary lists are being used in programs. By mapping a program's current use of a list onto the table, it can raise awareness of what can be done to enhance or improve the use of a list. For a new program, it could be used to help evaluate and select a list or to set design criteria for an appropriate list (e.g. is this a list for a single course or for an entire program), and to help plan and prioritize program goals in terms of resource

development to support the use of the list. It can also serve as a research framework for further development of the uses of lists.

Thirdly, it is certainly hoped that the dominant use of the Academic Word List in these contexts will be reevaluated and that other alternatives like the *Academic Vocabulary List* (Gardner & Davies, 2013) or the *new Academic Word List* (Browne, Culligan, & Phillips, New Academic Word List 1.0, 2013) will be considered. For more discipline specific institutions, a list like Hsu's *English Engineering Word List* (2013) could be considered as more appropriate for learners in the region. These more modern lists that are based on larger corpora that are not categorized into the somewhat limiting and possibly limiting four categories of Commerce, Law, Arts and Science, and would likely be better options for contexts like these

Fourthly, the concept of "restricted word families" definitely has implications for practice both for the institution or institutions where it is being used as well as other institutions that may adopt it in order to solve the problems with using a word family based list (too broad, with learners unable to make connections between the members of the family) or a lemma based list (too narrow with some obvious connections between different "words"). Especially when used with the EVP, this opens a new possible framework to help map acquisition of word forms across a curriculum while still targeting higher frequency lexis, although this is certainly not the only option.

Another implication of the findings is to reexamine the way in which vocabulary is assessed in these programs because of the apparent disconnect in how vocabulary is presented on a program level and how it is assessed.

As pointed out in the discussion chapter, there also seems to be a disconnect in almost all of the programs about how vocabulary is taught and how it is assessed. It would be helpful to have programs do change practice so that there was more alignment in how this is being taught and how it is being assessed.

Another implication for practice is to hopefully instill a greater consideration for exactly how technology is being used to enhance vocabulary acquisition and if this is achieving the desired goals. If the focus is only on receptive understanding primarily for reading, then meaning-based activities might be appropriate, but if students are also being encouraged to use the vocabulary productively, then simpler matching-based activities might not be enough. This might mean some sort of analysis of the sites that are being used needs to be done, or the creation of some sort of tool to help map what each online tool does.

Finally, it is hoped that Appendix D, the consolidated table of all the identifiable vocabulary lists with information on the size of list, the type of list, the date when it was published and details about the corpora represents a resource that can be used to help evaluate what types of lists exist and whether there is an already existing list that might be suitable for a program. It can also be used for research purposes to further study the number and types of lists available, to map the development of further lists, and to prioritize areas where they might need to be developed.

7.3 Limitations

As this was an explorative, interpretive study, no claims are made that these five institutions represent the scope of what is currently being done with word lists in English language programs either in the UAE or in other similar programs around the globe. The UAE is a unique context, and as Arabic has an entirely different alphabet and structure than English, this means that students have little or no chance to use some of the linguistic and other clues that speakers of many other languages with similar alphabets might be able to do, so the use of frequency lists might be more prevalent in this context.

Additionally, it should be noted, as an outsider to many of these programs, I had only superficial access to the programs and depended on the information provided by the academic teachers, coordinators and administrators who participated in the interviews. While the interviewees were very forthcoming and freely shared their knowledge and experience, this data is still limited to the ten individuals that were interviewed. In at least some of the cases, this information was confirmed by at least one additional interview with another faculty member at the institution, but as the interviews often involved people with different job descriptions, this meant that certain information was only available to a small number of people.

Finally, this research is focused on the perceptions of teachers, and students were not interviewed for this research. Students would likely have quite different

perspectives as to the vocabulary they are learning and how the teaching, learning and assessment of it were organized.

7.4 Areas for future research

This exploratory study is a preliminary examination of what is being done with lists in university foundation programs in the UAE, and it raises the question of how they are being used in a variety of different contexts including pre-sessional programs in countries like the UK, high schools in L1 contexts, or in intensive English contexts in other countries. As such, this research could be duplicated or extended in other contexts to see if similar findings occur or if there are different ways of adapting lists to help support vocabulary teaching and learning.

One point that is clear is that the use of English in the UAE is quite different from that in many of the countries where English is the native or official language, due to a variety of factors such as the culture, geography, diverse population and the use of English as practical lingua franca. As such, it would be of value to create a corpus of the English that is in use in one or more of the large multi-national cities in the UAE that might also represent the use of English in other similar cities in countries like Kuwait, Qatar, Oman and perhaps even Saudi Arabia. This might help identify the most useful English that students who will likely spend the majority of their lives working in this or a similar context should learn.

It would also be interesting to interview students at these institutions to find if any of these approaches were deemed more successful than the others, although

making any sort of comparison would be limited due to the different student profiles and methods used.

It would be also be valuable to get further feedback from Program 5 about how both the concept of “restricted word families” works in practice and what feedback they have gotten from teachers and students in regards to the unique application they have created. As they are likely farther down or past the piloting stage and have released additional parts of the application, it would also be interesting to find out what data they have obtained regarding the specific vocabulary that is easier or more difficult for students.

Another possible project would be to create a UAE or GCC version of the CEFR, especially for vocabulary, as has been done in Japan with the CEFR- J. This would be especially relevant because of the rise of the importance of the CEFR in the UAE, especially the EVP, with the EmSAT, the new national high school leaving exam adopting it.

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Appendixes

Appendix A: Draft of initial e-mail for key individuals in institutions

Dear _____, (letters will be addressed individually)

As you may be aware, I am working on my EdD in TESOL at the University of Exeter and specifically on the role that vocabulary lists play in help directing the acquisition of vocabulary in foundation/ academic bridge programs. As such, I was wondering if it would be possible to interview you in regards to how vocabulary is dealt with in your program, what common problems your learners experience with vocabulary, how you use (or don't use) any vocabulary lists, and if your institution's approach to vocabulary acquisition has changed in recent years. The interview would be confidential and neither your name nor the name of your institution would be used, unless you would prefer that it was, but a general description of your institution would be provided to help provide a general description of the context.

I would be happy to travel to your institution to conduct the interview in person or if that isn't convenient, we could conduct it via Skype. I'd also be happy to offer you a Starbucks coffee card to help compensate you for your valuable time.

Please let me know if you have any questions and many thanks if you are able to help me with this.

Sincerely,

Ted Burkett

Appendix B: Questions for semi-structured interviews

1. Can you start by just giving me a bit of general information about yourself in terms of the number of years you've been teaching English both overall and in the UAE specifically?
2. Could you give me a bit of general information about the institution and the Intensive English program that you work at (age of program, general student profile, number of students, number of teachers, level of students, etc.) How would you describe the type of English you teach- general English, ESP, EGAP, etc.? Do students in the program study anything besides English in your program?
3. Can you tell me a bit about some of the difficulties that the students in your program have with vocabulary and about why you think this might be? (Are these similar to other contexts you've worked in or that you are aware of?)
4. Now, more specifically, can you tell me how vocabulary is currently handled in your program? Is there an explicit focus or a separate strand for it? Do you use any technology based tools or websites to help students? Is it taught explicitly in any way? Have you developed any in-house materials for this? Does it seem to meet the needs of students?
5. What English word lists are you aware of? Which do you feel are most useful? Why?
6. And of course, do you personally or does your institution utilize any sort of list to help prioritize the acquisition of any specific set of vocabulary (If yes, which list/ why/....) Do you think that this list helps meet the needs of students? If no... why not? Is this something you would prefer to use if you had the time and resources?
7. What role do you think frequency or other lists have in directing student vocabulary learning? What are some of the practical problems?
8. Has the approach towards vocabulary changed much in the last 5 years or so at your institution? In what ways? Why is this?
9. In an ideal situation, how would you like to see vocabulary acquisition directed for students at your institution? What tools would this require?
10. How do you think that word lists are likely to develop in the future?

Appendix C: Word lists

#	Name	Author(s), Year	Type	Size; Lemma/ Word Family/ word types/ etc.	Corpus details	Notes
1	Academic Business English List (ABEL)	Stella, 2015	Academic, Business	840 word families	15 textbooks used in core courses in an undergraduate business program	Excludes words from the BNC/COCA 3000
2	Academic Collocation List	Durrant, 2009	Academic, formulaic (collocations)	100 collocations	25 million words, 3251 articles	From 5 general academic groups: Arts & Humanities, Life Sciences, Science & Engineering, Social-Administrative, Social-Psychological
3	Academic Formulas List	Simpson-Vlach and Ellis, 2010	Academic, formulaic	207 academic formulas	2.1 million tokens of written and spoken academic English	Also has 200 spoken and 200 written formulaic phrases
4	Academic Keyword List	Paquot, 2010	Academic	930 lemmas	3 million word, professional and novice academic corpus	Does not exclude 2000 most frequent words
5	Academic Spoken Word List	Dang, Coxhead & Webb, 2007	Academic	1,741 word families	13 million word academic spoken corpus	vocabulary from 24 subjects across 4 disciplinary sub corpora
6	Academic Vocabulary in Business News	Boonyapapong, 2007	Academic, Business news	100 word families	859,890 running words from a Thai English newspaper	List only includes AWL families
7	Academic Vocabulary List (AVL)	Davies & Gardner, 2013	Academic,	3015 lemmas	120 million COCA Academic subset	The frequency of words must be at least 50% higher in the academic corpus than in a general corpus. Word family version also available.

8	Academic Word List (AWL)	Coxhead, 2000	Academic	570 word families	Unique 3,500,000 academic word corpus	Excludes the GSL
9	Advanced Common Core Vocabulary	Stein, 2002/2008	General	4,208	not corpus based	See Stein's Common Core Vocabulary
10	Agricultural Word List (Agrocorpus List)	Martinez, Beck & Panza (2009)	Academic, Agriculture	92 word families	826, 416 word AgroCorpus based on 218 articles from journals from 2000-2003	Reduced list including only AWL families
11	American Heritage Word Frequency Book	Carroll, Davies & Richman, 1971	General	87,000 words	5 million tokens	Aimed at school children grades 3-9
12	American University Wordlist	Praninskas, 1972	Academic	507 base words and 840 derivatives	Corpus 272, 466 words from 10 university level textbooks covering 10 academic disciplines	Only derivatives listed in the corpus were included
13	Anatomy Word List	Fraser, Davies & Tatsukawa, 2015	Technical-anatomy	500 word types, 353 two word terms, 100 three word terms	361,097 tokens from Grey's Anatomy for students textbook	Also has 100 top multiword units
14	Applied Linguistics AWL	Khani & Tazik, 2013	Academic	773 word types	240 articles from 12 applied linguistics journals (20 from each), 1,553,450 words	Excludes GSL; 573 of the 773 word types are in the AWL
15	ASD STE-100 Simplified Technical English	1986, updated every 3 years	Technical	880 words	Not corpus based	Developed for writing technical documentation for the aerospace and defense industry. Now widely used for other areas of technical documentation. Has writing rules and a dictionary. It stresses simplicity and clarity. (e.g. No passives, no verbs with -ing)
16	Basic Engineering List (BEL)	Ward, 2009	Technical, engineering	299 word types	Corpus from 3 rd and 4 th year undergraduate textbooks	Designed for foundation engineering students

17	Basic English	Ogden, 1930	general	850 basic word list; 1000 word list for work and life., 2000 maximum word list, word family,	Not corpus based	An attempt to simplify English. Only 18 verbs
18	Billuroglu – Neufeld List (BNL 2709)	Billuroglu & Neufeld, 2005	General/ Academic	2709 word families	Based on a combination of the GSL, the AWL, the Brown Corpus 2000, the BNC 3000, and Longman’s dictionary building database	Designed to represent Core Vocabulary.
19	BNC frequency lists	Kilgarriff, 1995	General	6318 lemmas	100 million word corpus with 90% written and 10% spoken	only words with more than 800 occurrences in the BNC. Other lists may be available.
20	Burkett List	Burkett, 2013	General/ Academic,	2720 restricted word families	not strictly corpus based	based on a combination of NGSL, AVL, n-GSL and Oxford 3000
21	Business Formulas List (BFL)	Hsu, 2014	Formulaic business language	1,187 word formula sequences (2-6 words)	7.62 million word corpus of 2,200 business research articles representing 20 business sub-disciplines	Designed to be used with Hsu's Business Word List for postgraduates. 316 2-word, 612 3-word, 198 4-word, 50 5-word and 11 6-word word sequences
22	Business Service List 1.01 (BSL)	Browne & Culligan, 2016	Business	1700 modified lexemes	64 million word corpus	Excludes the NGSL
23	Business Word List (2)	Konstantakis, 2010	Academic, business	1,613 word families	1 million tokens	
24	Business Word List (BWL)	Konstantakis, 2007	Academic, business	480 word families	600,000 token corpus from 33 business English textbooks	Excludes the GSL and AWL; designed for business undergraduates.

25	Business Word List for postgraduates	Hsu, 2011	Academic, business	426 word families	7.62 million tokens from 2,200 business research articles across 20 business areas	Excludes the BNC 3000; includes 151 word families from the AWL
26	Cambridge English: Business Preliminary	UCLES, 2006	General, business focus	42 pages, mostly lemma	3 corpora including the Cambridge Learner's Corpus, the BNC and a specialized business article corpus	Target vocabulary for the business preliminary examination; includes some phrasal language
27	Cambridge English: Key English Test and Key English Test for Schools	UCLES, 2012	General	mostly lemma	Based on the Cambridge Learners Corpus and the EVP	Target vocabulary for the KET exam- CEFR level A2
28	Cambridge English: Preliminary and Preliminary for schools	UCLES, 2012	General, Lemma based	mostly lemma	Based on the Cambridge Learners Corpus and the EVP	Target vocabulary for Cambridge PET exam: CEFR B1
29	CEFR- J Wordlist	Tono, 2016 (v.3)	General (CEFR-based)	7815 lemmas	Based on the major English textbooks used at primary to secondary schools (Years 3 to 10) in China, Korea, and Taiwan.	All the words have part-of-speech information and corresponding CEFR levels.
30	Chemistry Academic Word List (CAWL)	Valipouri, Nassaji, 2013	Academic (Chemistry)	1400 word families	1185 Chemistry Research Articles	Also identifies 390 non-GSL/AWL word families

31	COCA frequency lists	Davies, 2015	General	5000, 20,000, 60,000 and 100,000 lemma	Based on the 520 million word Corpus of Contemporary American English(2015)- 20 million words added every year	Based on the largest publically available corpus. Many other resources available.
32	Common Core Vocabulary (CCV)	Stein, 2002/2008	General	2139 word families	Not corpus based	Not frequency based; Defining vocabulary in dictionaries for foreign learners
33	Complete Vocabulary List of 3,200 Academic Words	Campion & Elley, 1971	Academic	(1)500 word families, (2) 3,200 word families	300,000+ word corpus from materials from 19 university disciplines in NZ	Excludes the first 5000 words from Thorndike & Lorge's 1944 list.
34	Computer Science Multi-Word List	Minshall, 2013	Technical, Computer Science	23 multi-word items	a corpus of 3,661,337 tokens compiled from journal articles	Covers 10 sub disciplines of computer Science; excludes the GSL and the AWL; mostly compound nouns with domain specific meaning
35	Computer Science Word List	Minshall, 2013	Technical, Computer Science	433 word families	a corpus of 3,661,337 tokens compiled from journal articles	Covers 10 sub disciplines of computer Science; Excludes the GSL and the AWL
36	Criminal Justice Key Word List	Buckmaster, R. 2004	Academic,	850 word families	one and a half million word corpus of texts related to the work of police officers/ criminal justice system professionals	provides 10 - 15% coverage of texts of interest to criminal justice professionals
37	Dale-Chall list of simple words	Dale, 1948	General	primarily lemmas, Original:763, revised: 3000	Primarily lemmas	Contains approximately three thousand familiar words that are known in reading by at least 80 percent of the children in Grade 5

38	Dolch Word List	Dolch, 1936	General	220 lemmas - "service words (no nouns included)	Based on secondary sources	Sight words for elementary school children grades KG-2. Also has a list of 95 nouns
39	EAP Core Word List	Masuko, Mizoguchi, Sano, Shiima, Thrasher & Yoshioka, 1997	Academic	874 headwords	Based on English texts in use at a Japanese liberal arts college	Not readily available
40	Education and Training Program Word List (ETPWL)	Freund, 2014	Technical-Grant guidelines	604 word types (not including plural forms)	252,599 running words from 5 sub grant calls in 2013	Excludes GSL
41	Engineering Academic Formulas List (EAFL)	Tigchelaar, 2015	Technical-engineering	765 formulaic phrases	1,000,000 tokens from engineering research articles	
42	Student Engineering Word List (SEWL)	Mudraya, 2006	Technical-engineering	1200 word families	2 million tokens from 13 complete textbooks from undergraduate engineering courses	Keyness comparison with BNC
43	Engineering English Word List (EEWL)	Hsu, 2014	Technical-engineering	729 word families	4.57 million words from 100 college textbooks across 20 engineering subject areas	Excludes words from the BNC/ COCA 2000
44	Engineering Phrases List (EPL)	Graham, 2014	Technical - engineering	40 phrases	Approx 1.15 million tokens from 29 first year engineering and math coursebooks	Uses markedness criteria to identify teachable phrases

45	Engineering Technology Word List (ETWL)	Jin et al., 2012	technical	313 word types	Vocational – program engineering corpus (Malaysian engineering technology textbooks) 124, 581 words	Excludes GSL and AWL
46	English Reference Word List (ERWL)/ CEEC List	Jeng, 2005	academic	6480 word families	From 35 word and frequency data files including elementary school textbooks, and other word lists.	A list for high school seniors in Taiwan who are preparing for the university entrance exam. Organized into 6 levels.
47	ENGList	Ward, 1999	technical-engineering	2000 word families	1 million token corpus made up of one textbook from five required first year engineering courses	
48	Environmental Academic Word List (EAWL)	Liu & Han, 2015	Academic, Environmental	458 word families	200 texts from 10 subject areas totaling 862,242 words	Shares 318 words with the AWL
49	Essential Pharmacology Word List (EPWL)	Fraser, 2012	Technical-pharmacology	570 word families	369,000 words from 100 pharmacology articles	411 "unproblematic" and function words removed
50	Essential Word List	Dang & Webb, 2016	General - for beginners	800 flemmas (also called Level 2 families)	9 spoken and 9 written corpora containing 10 varieties of English	624 lexical words, 176 function words
51	EU Word List (EUWL)	Jablonkai, 2017		513 word families	About 1 million running words from official EU texts from 40 different genres	
52	First 100 Spoken Collocations	Shin & Nation, 2008	Spoken collocations	100 collocations	the 10 million spoken word section of the BNC	Focuses on spoken collections - conversation emphasis.
53	First-year Engineering Word List (FEWL)	Murphy, 2015	technical	570 word families	All textbooks used in first year engineering courses for 2014-15 academic year	Excludes the GSL; 295 word families overlap with the AWL

54	Food Science and Technology Academic Word List (FSTAWL)	Esfandiari & Moein, 2015	Academic, technical- food science and technology	1090 word families	4,652,444 running words from 1421 research articles from 38 journals across 5 sub-disciplines	prepositions, pronouns, determiners, conjunctions, auxiliaries, particles, proper names, and acronyms removed
55	Fry's 1000 Instant word list	Fry, 1957/ Fry, 1980	General	1000 word families	about 5 million tokens from 10,000 text samples based on words from The American Heritage Word Frequency Book	Listed by frequency; aimed at US grades 3-9
56	General Service List (GSL)	West, 1953	General	about 2000 word families	Tailor made 5 million word written corpus (sources date from 1920's)	Not strictly frequency. Contains archaic forms of some words like shilling and lacks many modern words like plastic, okay, computer, etc.
57	General Service List (GSL)- revised	Bauman & Culligan, 1995	General	2284, Word family (somewhat limited by type of derived form)	Brown Corpus (1 million words from 500 texts published in 1961)	Updated version of GSL
58	Ghadessy's Academic Word Lists	Ghadessy, 1979	Academic	785 lemmas and more restricted 322 lemma lists	478,700-tokens composed of 20 textbooks across three academic areas	Based on student annotations of unknown words in their coursebooks
59	Global Academic Vocabulary Lexicon (GAV)	Wadden, Ferreira, Rush, (2012)	Academic	about 1400 head words; 2800 total words on the list	Not corpus based. Created by initially combining the AWL, UWL, and EAP word lists. The NAWL was being added to this.	Available as a 131-page dictionary with definitions, translations to Japanese and example sentences. Lessons are also available.
60	Insurance Research Articles Word List	Khamphairoh & Tangpijaikul, 2012	Technical-insurance	100 keywords (word types) and collocations	980,121 tokens from 155 research articles from two insurance journals from between 2007 and 2010	Only keywords with a insurance specific meaning were selected. Two and three word collocations for the first 10 keywords also provided.

61	Integrated Pharmacology Word List (IPWL)	Fraser, 2009	Technical-pharmacology	2000 word families	369,000 words from 100 pharmacology articles	Includes
62	JACET 8000	JACET Rewriting Committee, 2004	General	8000 lemmas	BNC and 6 million word sub corpus based on primarily written sources (newspapers, magazines, TV scripts, etc.)	Designed for English learners in Japan; Also includes 250 additional introductory words
63	Law Word List (LWL)	Aichah, 2012	technical	373 word families	Law Corpus (LC) of 3,843,107 tokens	Unpublished MA thesis (Swansea University); Excludes GSL and AWL. Also includes technical multiword list for law
64	Lecture Introduction Wordlist	Yaqoob, 2013	Academic-lecture introductions	200 word types	45,305 tokens from 89 lectures	Includes some formulaic language
65	Linguistics Academic Word List (LAWL)	Moini & Islamizadeh, 2016	Academic, Linguistics	1263 word families	about 4 million words from 700 linguistics research articles covering four main linguistics sub-disciplines	Includes 224 words not in the GSL and AWL
66	Longman Communication 3000	2007?	General	3000 lemmas	390 million word Longman Corpus Network	Includes three 1000 word bands for written and spoken English
67	Lynn's Academic Word List	Lynn, 1973	Academic	179 word families	10,000 annotations in 52 books and 4 handouts	Based on student annotations of unknown words in their coursebooks
68	Medical Academic Word List (MAWL)	Wang, Liang & Ge, 2008	Academic, Medical	623 word families	Medical research articles (RAs)	Excludes items from the GSL, contains 342 words from the AWL

69	Medical Academic Word List for clinical case histories (MAWLcc)	Mungra & Canzianni, 2013	Academic	241 word families	Corpus of 246,907 words from 200 case studies from 72 medical journals	Excludes the first 2000 words from GSL. Range of at least 50% coverage of 24 areas. Occurrence of at least 30 times in corpus.
70	Medical Research Article Word Lists	Chen & Ge, 2007	Academic, Medical	292 word families	50 medical Research articles- a total of 190,425 running words from 25 medical subject categories	Designed as a preliminary study into a medical academic word list. Word families are included in the AWL.
71	Medical Vocabulary List	Fraser, 2015	Technical - Medical	380 lemmas	about 50,000 tokens from 8 online articles	Designed for an intensive 4 day course for 3rd year medical students
72	Medical Word List	Hsu, 2013	Sub- technical and lay technical	595 word families	155 medical textbooks across 31 subject areas; approximately 15 million tokens	Excludes the most frequent 3000 word families from the BNC
73	Music Word List	2016, Wang & Picard	Specialized- music	1725 word families	1,601, 876 tokens from 5 music coursebooks	1,314 word families included in the NGSL and 167 word families included in the NAWL
74	New Academic Word List 1.0 (NAWL)	Browne, Culligan & Phillips, 2013	Academic	963 modified lexemes	288 million word academic corpus (mostly from the Cambridge English Corpus - Academic)	Excludes the NGSL
75	New General Service List - Spoken 1.2 (NGSL-S) 1.2	Browne & Culligan, 2017	General-spoken	721 modified lexemes	Spoken section of the Cambridge English Corpus	Part of the NGSL list
76	New General Service List (new-GSL)	Brezina & Gablasova, 2013	General	2,494 lemmas	Collection of 4 corpora totaling 12.1 billion words	Includes 378 "current vocabulary" words

77	New General Service List 2.0 (NGSL)	Browne, Culligan & Phillips, 2013	General	2800 modified lexemes	Built on a 273 million word subsection of the 2 billion word Cambridge English Corpus	Includes 2368 word families
78	New Medical Academic Word List	Lei & Liu, 2016	Academic/technical-medical	819 lemmas	2.7 million words from medical journal articles (760 articles from 38 journals) and 3.5 million words from medical English textbooks	146 General English lemmas with no medical meaning removed
79	Newspaper Word List (NWL)	Chung, 2009	Technical-newspapers	588 word families	Newspaper corpus of 579,849 words from 12 news sections in three Newspapers published online Feb.-March 2006	Excludes the GSL
80	Nursing Academic Word List	Yang, 2015	Academic/Technical-nursing	676 word families	Nursing Research Articles Corpus - 1 million words from 252 nursing articles	Excludes the GSL (first 2000 words); 378 word families overlap with the AWL
81	Opaque Engineering Word List	Todd, 2017	Technical-engineering	186 word types	1.15 million tokens from 27 engineering coursebooks	Focus on opaque vocabulary (words that cannot easily be understood)
82	OPEC Word List	Aluthman, 2017	Technical- oil marketing	255 word types	1,004,542 words from 40 OPEC monthly reports released between 2003 and 2015	Excludes AWL and GSL
83	Oxford 3000	Oxford University Press, (n.d.)	General	3000 lemmas (primarily)	British National Corpus and Oxford Corpus Collection	Not strictly lemma based (e.g. adj/adv combined together into one entry)
84	Pharmacology Word List (PWL)	Fraser, 2007	Technical-pharmacology	601 word families	180,000 words from 50 research articles	Excludes GSL and AWL

85	Phrasal Expressions List (PHRASE List)	Martinez & Schmitt, 2012	Multiword phrases	505 multiword expressions	British National Corpus	Not strictly corpus based.
86	Phrasal Verb Pedagogical List (PHaVE List)	Garnier & Schmitt, 2015	Phrasal verbs	150 phrasal verbs	Corpus of Contemporary American English (COCA)	List includes most frequent meaning senses
87	Pilot Science Word list for EAP	Coxhead & Hirsh, 2007	Academic - Science	318 word families	1,761,380 tokens across 14 Science subject areas	Corpus from coursebooks for first year Science students at Massey University, NZ
88	Science Textbook Word List (STWL)	Veenstra & Sato, 2018	Academic- Science	309 word families	700,000 word academic corpus compiled from 12 textbooks on biology, chemistry, physics and engineering	GSL excluded; 127 word families overlap with the AWL
89	Short List of the 500 Most Common Academic Words	Campion & Elley, 1971	Academic	500 word families,	300,000+ word corpus from materials from 19 university disciplines in NZ	Excludes the first 5000 words from Thorndike & Lorge's 1944 list.
90	Social Sciences Word List (SSWL)	Chanasattru & Tangkiengsirisin, 2016	General/ Academic, Social Sciences	394 word families, 1120 word family members	Social Sciences Corpus - 414,545 tokens from 64 articles from 11 Social Science Journals published from 2013-2015	Function words removed from the list
91	Special English	Voice of America, about 1959	General	1500 lemmas	Not corpus based	Used by Voice of America Radio Broadcast. May add additional terms as needed, no idioms used.
92	Specialized English	Voice of America, 1998	General	1500 lemmas	Not corpus based	Updated version of Special English
93	Specialized Vocabulary Word List of Food Writing	Nordin, Stapa & Darus, 2013	Technical - food writing	113 word types	11 PowerPoint Presentations, 3698 words	Designed for Malaysian food science students

94	Taiwan Basic English Word List	Taiwan Ministry of Education, 2003	General	2000 lemmas	based on other word lists and Collins Cobuild corpus	Designed for Taiwan Junior Schools; 1963 word families
95	Teacher's Word Book of 30,000 words	Thorndike & Lodge, 1944	General	30,000 lemmas	18 million word written corpus	includes about 13,000 word families
96	Technical Business Keyword List (for Thai EFL Learners)	Tangpijaikul, 2014	Technical-business	134 word types	890,000 tokens from two online English newspapers published in Thailand in the second half of 2011	Excludes GSL and AWL
97	Technical Words in Finance Word List	Tangpoon-Patanasorn, 2018	Technical-Finance	979 lemmas	2,004,964 running words from four finance-related text categories: books, journals, websites and newspapers	Includes 569 word families Includes 413 words from GSL and 291 words from AWL
98	Technical Vocabulary in discipline- related movies and TV shows	Csomas & Petrovic, 2012	Technical, legal	1124 word types	130,000 words compiled from legal subject based movies and TV shows	
99	Theological Word List	Lessard-Clouston, 2010	Technical-Theology	100 items	23 90-minute academic theology lectures	Excludes GSL and AWL
100	TOEIC Service List 1.1	Browne & Culligan, 2016	Academic - TOEIC exam	1200 modified lexemes	1,5 million word corpus	Excludes the NGSL
101	University Word List	Xue, Guoyi & Nation, 1984	Academic	836 word families	Not strictly corpus based	Excludes the GSL; combined 4 previously existing academic word lists
102	Vocabulary for Academic Lecture Listening (VALL)	Thompson, 2006	Academic lectures	200 word families	The BASE corpus; 1,644,942 tokens from 160 lectures and 40 seminars	Focus on Economics lectures; excludes the first 2000 word families from the BNC
103	Word Frequency List of American English	Davies & Gardner, 2010	General	20,000 lemmas	Corpus of Contemporary American English, 400+ million words	Corpus of Contemporary American English, 400+ million words

104	100 essential TOEFL reading content word list	Jin et al., 2012	Academic-TOEFL	100 word families	66,733 tokens from 3 TOEFL IBT coursebooks	Not from actual TOEFL tests
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Appendix D: Ethics Certificate



GRADUATE SCHOOL OF EDUCATION

St Luke's Campus
Heavitree Road
Exeter UK EX1 2LU

<http://socialsciences.exeter.ac.uk/education/>

CERTIFICATE OF ETHICAL APPROVAL

Title of Project: An Investigation into the Use of Vocabulary Lists in University Foundation/Intensive English Programs in the United Arab Emirates

Researcher(s) name: Theodore Burkett

Supervisor(s): Philip Durrant

This project has been approved for the period

From: 01/11/2015

To: 28/09/2018

Ethics Committee approval reference:

D/15/16/13

Signature:

A handwritten signature in black ink, appearing to read "J Seale".

Date: 01/12/2015

(Professor Jane Seale, Director of Research, Graduate School of Education)

Appendix E: Sample Transcribed Interview

Note: Codes are highlighted on this transcript for clarity. All coding was done in Nvivo (See Appendix F for an example of this).

Teaching Experience

Speaker 1: All right, so can you start by just giving me a general bit of information about yourself? In terms of the number of years you've been teaching English, both overall and in the UAE specifically?

Speaker 2: I've been teaching for 20 years this month.

Speaker 1: Congratulations!

Speaker 2: Seven years in the UAE, four years in [REDACTED] nine years in [REDACTED]
[REDACTED]

Institution Information

Speaker 1: Okay and then could you give me a bit of information about the institution and the intensive English program that you work in?

Speaker 2: Okay. So I work at [REDACTED] Um, the idea is that students whose level of English isn't good enough, they come to the [REDACTED] first, before going on to their degree course in English.

The students have to get a minimum of an IELTS 5 to exit, but they also have to pass the, end of level exams as well. So it's a kind of dual exit.

Speaker 1: In terms of the age of the program, general student profile?

Speaker 2: Well the program has been going since the University opened [REDACTED], students, well a lot of them, come straight from high school. Most of them do. There's a few mature students, but mostly 17-18 year olds.

Type of English taught

Speaker 1: Okay and how would you describe the type of English you teach in the program?

Speaker 2: Well we moved to more of an English for Academic- General Academic Purposes last September. So that's what we're trying to pursue now. I think before it was more general- general English [REDACTED] With a rough kind of aim to get them through the IELTS. But I think now it's a- it's a much more rigorous syllabus and curriculum that focuses on the specific academic skills that they need in University, but obviously we don't know their majors so that's a- that's more of a general academic purpose course.

Speaker 1: And do the students in the program study anything besides English? Or just English?

Speaker 2: Just English. Yeah. Intensive English, twenty hours a week.

Difficulties students face with vocabulary

Speaker 1: Okay, so, and then now to the general issue of vocabulary in your program. So to start with, can you tell me some of the difficulties that students in your program have with vocabulary and why you think this might be?

Speaker 2: Hmm, well. I mean, firstly, I think the obvious one is just the lack of breadth of vocabulary. They just have a limited lexical knowledge. The number of

words that they know is very limited. I think that's one of the factors that impacts on their very poor reading skills, as evidenced by the IELTS score of 4.6, I think, is the average for Emirati- Emirati learners in the UAE. But then also the depth is lacking as well, so it's very limited collocational knowledge to use which words with which. And then obviously spelling as well, that's a huge weakness. The difference between English and Arabic scripts. The lack of short vowels in Arabic. So that's a major problem, is spelling.

Speaker 1: And why do you think they have these dif- they come into the program with these difficulties?

Speaker 2: Why do they come into the program with these difficulties? Because they haven't had English in school, I guess. The schools. I mean, I'm not criticizing the schools but they- they haven't obviously been prepared enough for... I mean, obviously, there's a lot of students who come in who are direct entry who have been fortunate enough to go to private schools [REDACTED] So they've had- they've been learning through English so they're the ones who go in directly. And then the ones who come to us tend to be the ones who've been to local schools so their, often, their English isn't quite good enough.

Speaker 1: And what do you- what do you think it is about the- the lack of quality English, or the- Is it that they don't, I mean, are there certain things you don't think they do enough of?

Speaker 2: Vocabulary. Well, I suppose, I mean, I don't know exactly what goes on in high schools but assuming there isn't a clear lexical syllabus of how many words and which words they need to learn, at the moment. I think that might be something they're developing. But that does seem to be a weakness.

Difficulties students face with vocabulary - Other regions

Speaker 1: Okay. And are these similar to other kind of context that you've worked- these kind of difficulties, are they similar to other kinds of context that you've worked in?

Speaker 2: Um, yeah I suppose similar [REDACTED] Although [REDACTED] were very visual in their learning so that they were very good at reading. And I think they picked up a lot of receptive vocabulary but they weren't very good at producing it or even hearing it. They could read it and recognize it. Um, [REDACTED] I suppose slightly more of a- an English background. English is more of a colonial language there. Although I suppose you could say that about the UAE as well. I think part- similar- [REDACTED] Yeah. They're a much more verbal culture and didn't mind repeating so much. (5:08)

Students and reading

Speaker 1: [REDACTED] What do you think about the students here and reading? Or reading in English. What do you think about that?

Speaker 2: Well, obviously, there's not a strong reading culture in the UAE. So you can- Even in Arabic there's not a lot of reading going on unless parents happen to be very supportive of that, encourage children to read. And obviously that translates into English so there isn't that culture and habit of reading... extensively in English.

Speaker 1: Is that something that continues as they get into the program here? Or do they-

Speaker 2: Well we have an extensive reading program using [REDACTED] So, I think that's had some impact on their reading habits. And you'll get a lot of students that seems to be quite keen on reading as much as possible, but that's because we force them to. I think there's some that generally do enjoy it, but we see that motivation grades helps a lot, to get them to read. So I think- I think things are improving, moving in that direction.

How Vocabulary is handled in the program

Speaker 1: Okay, so now more specifically, can you tell me about how vocabulary is currently handled in your program? Is there an explicit strand, or separate strand, for it? Do you use any technology tools or websites to help students?

Speaker 2: Well, we have a specific vocabulary strand in the curriculum. Which is basically the... We've identified 2,750, the most frequent word families in English, and we've kind of assumed that they should know the first kind of 950-1000 words and then three levels that we have; they're targeting 600 word families at each level.

Use of Applications

And how we teach them at the moment - we use a commercially available app, Spelling City, for vocabulary in Spelling City App at the moment to deliver the new materials to the students, in blocks of ten words which they get every day.

Speaker 1: How do they get them? Do they have to go to the website and access them, or the app, and access them every day? Or?

Speaker 2: Yeah. They will have iPads so they access the app through their iPads. Basically they can either do it- and the teacher has to set it up for them. They create, um- Well it's sort of done centrally, by level. So each of the words, the 600 words, is divided into twelve units of fifty words and then each unit is subdivided into five units of ten words. So there's activities - I've forgotten how many there are now - I think on the premium version which we have there's like 25-30 different activities that focus on different aspects of word knowledge or meaning. Word pronunciation a little bit, not so much collocation. But you can- you can put your own sentences and then you can focus on one or two collocations that way.

Speaker 1: And spelling probably, too?

Speaker 2: Yeah, obviously. Spelling, yeah. I think that's what the website started with and then expanded more to other aspects of vocabulary.

Speaker 1: Hm. I don't think I've looked at the more recent version. Is it seem like a dramatic improvement over what it was?

Speaker 2: Yeah. The premium version is very good. It's got a good range of activities. I think if students, just access it themselves, they go to each block. They can choose which activities to do. So it, hopefully, allows them to match their- the activity to their learning preferences. You know, obviously, what I've said before, spelling is a big issue. So a lot of them do a lot of the spelling activities. Oh and one other feature I like about it is the teacher can create assignments each day and- and deliver them to the students. So you can assign, say for each block, you know, six or seven specific activities for those ten words. And the students get a pop-up on the

iPad saying, "Here is your assignment for today." And they go in and do those seven activities.

Speaker 1: And you can tra-, as the teacher, you can track what they've done?

Speaker 2: Yeah. You can see who's done it, what their scores were, and what problems they had.

Speaker 1: And is that- do most of them do it?

Speaker 2: I think, like a lot of things, they start off with a lot of enthusiasm and- and they all do it. And then gradually, you know, some of them slip, and they stop. They don't do so many or some of them forget about it. So I think it's a constant reminder, and try to do a little bit in class as well, just to show the value. The value of it.

(9:56)

Use of Applications

Speaker 1: Okay... And so have you developed any in-house materials for delivering the, I mean, when you- with Spelling City do you give the words and it – the app or the company – supplies all the support materials, or?

Speaker 2: Yeah. Well, you can just import your own lists, and it'll automatically create the sentences and the meanings. Which are like the default ones in the program. But we were able to actually send them spreadsheets with our own sentences and definitions and they put that into our, (whatever it was) our version of it. So that enables us to personalize a bit more localized examples, and also select the right meaning as well. Because a lot of the- when you put your words in, you know, you have to select which word and which part of speech it is. So, you know, we have to be very- you have to be very specific about which of those was selected.

Speaker 1: And so does it- does this seem to meet the needs of the students?

Speaker 2: I think they- most of them seem to like it. The only criticism is that they- some of them find it a little bit, um, childish. Because I think it was originally developed- developed for K-12 students. And it is still widely used, I think, mostly in the States, North America. But it's kind of attractive and the games are fun and colorful and bright. But it may not appeal to more serious, adult learners. So that's why we started, creating our own vocabulary app.

Use of Applications

Speaker 1: Alright. So, yeah, so I guess- I guess that's a subject to talk- to discuss some. So the app

[REDACTED]. Can you tell me a little bit about that?

Speaker 2: Yeah. So we took exactly the same word lists. It was three main steps we went through to create the- the app. The first one is to create a word guide. So, researching information about each word: what's the most common part of speech, the other word forms, that would be suitable for our level to be taught, collocations, obviously, the meaning, the most frequent meaning, Arabic translation, maybe a possible other meaning that was useful for the students. And then from that we wrote texts. So for each level we had- we wrote sixty texts, and each of those texts contained ten words from the list. We didn't sort of go through the word list choosing words by frequency or alphabetical order or anything. I think we just chose the ones most suitable for that topic, or theme of the text. So it was very much

driven by the text that we wrote. Then, once the- once the words had been assigned into blocks, we could then create materials- other materials around those ten words. So we selected, uh, twelve different activities for those ten words. And- and then basically wrote- wrote the materials for those ten activities. Some of them are very simple, I mean just matching the word and the meaning, so it was just a case of selecting another- another word as a- as a distractor. And others were a bit more time consuming, you know, to write complete sentences and then have distractor collocations, for example. That's just an example and that was all done in Excel spreadsheets and then basically we- we went through the [REDACTED] [REDACTED] and they did a whole procurement process and we got an app company on board, and we had a project manager from, [REDACTED] [REDACTED] basically worked with the app company to develop the app.

Speaker 1: Who is that?

Speaker 2: [REDACTED]

Speaker 1: [REDACTED]

Speaker 2: [REDACTED] came back, two or three years ago.

Speaker 1: Okay. Okay [REDACTED]

Speaker 2: But [REDACTED] kind of like the, [REDACTED] sort of the structural designer with an education background. [REDACTED] like translated what we wanted into app speak, for the app company to understand. So [REDACTED] is a pretty key person in that process.

Speaker 1: Yeah, I imagine [REDACTED]

[REDACTED] I think the app company themselves underestimated how much work was involved in this. I mean, we primarily chose them because they seemed to have a good understanding of what we wanted. But nevertheless, you know, they, I think they- I think [REDACTED] had to keep going back to them, you know, saying hundreds of times, "Oh, this isn't quite right. No you haven't understood what we wanted." And I think that's an experience that a lot of education organizations have had with that development company. They didn't quite understand what we wanted.

(14:58)

Speaker 1: Right, because it's a very thorough, detailed project. So what are some of the activities?

Speaker 2: Well, it's divided into- so each block is divided into six stages. So the first stage is

Focus on Meaning, so they do three different activities on the meaning. Sort of just making that link between the form and the meaning stronger. And then we look at, um, Focus on Form. There's some spelling and pronunciation activities that work just on the- the isolated word. And then there's, uh, Learning Context. So that's where we put the word in more- in sentences; get them to choose the correct word by meaning. And then the fourth one is Learn Collocations. They look at four- four or five different useful collocations that would help them with their speaking and writing. And then Learn Different Forms, that's where we introduce the parts of

speech in the word family, but not a comprehensive approach. We don't overload them with... thirteen different forms of the same word family. Then the final stage is the text. So that's- they go- they look at all the words in a text. It's basically a multiple-choice text. They have a drop down menu and choose the best word. But that's where we feedback all the- the collocation, or one collocation for each word, maybe a different word form. So it kind of brings it all together.

Speaker 1: And how long- how long would you estimate it takes for the whole- for each group of ten words?

Speaker 2: That's a good question. (both laughing) Well, we did a- we did a mock up in other software, and we had three, three or four students pilot that, and they seemed to go through it pretty quickly. Um, having said that, they tend to be, perhaps, stronger students and they were, I think it was, in the first semester of the year. So inevitably they were stronger and they went through pretty quickly. Maybe 25-30 minutes. Um, however, since we've- we've got the final, semifinal, version of the- of the app, we can pilot it with, um, students in the final semester. They've been taking an hour to do one block.

Speaker 1: So an hour a day?

Speaker 2: Yeah.

Speaker 1: Okay.

Speaker 2: So that's obviously a bit long, I think. So we might have to go back and adapt some of the activities. Give them, maybe, more flexibility in how they complete the stages.

Speaker 1: And they have to, uh, they have to do that outside of class, right? Or they're expected to.

Speaker 2: Yeah. We start it off in class, just to- just to get them started. But the idea is it's- it's- it's independent self-access materials that they should do by themselves.

Speaker 1: Okay, um... Okay so, just jumping back to general wor- English word lists, sort of frequency word lists in general. What- what- what- what word lists are you aware of? If you just had to go through some of the- (laughing)

Speaker 2: Um, well, Oxford 3,000, um, the new General Service List, the other new General Service List, um, the Academic Vocabulary List, um, oh the Academic- the Academic Word List which came out earlier, the COCA, um, I can't think of any others at the time.

Speaker 1: And out of those, do you feel any of them are more useful than others? Or, is there...?

Speaker 2: Um... Well, obviously, the more- the more recent ones, I think, um, I mean they should be more useful because they're based on more up-to-date texts and copra. So they should reflect the most- the most recent changes in language and give us the most frequent meanings and uses of words. Um, I mean there's a bit, I suppose, people who- who wrote a particular list will always say, "Oh our list is better, because this..." Um, I mean I suspect Norbert Schmidt recently he was a big fan of the- of the COCA, um, although I think that- Is that based on some- partly on the BNC as well? No, Contemporary American English. Yeah.

Speaker 1: Um, I don't think. Contemporary American English, yeah.

Speaker 2: It's the, um, what is it? Um,

Speaker 1: D... something, something. Is it D?

Speaker 2: D. Gardener. Yeah. Um, we've also been using, um, Lexica, which is a vocabulary test. And the guy who wrote that used the COCA and the BNC as his word list. But then, the BNC is 26 years old and hasn't been added to since. Anyway, there's probably been a few changes in language since then.

Speaker 1: Yeah. Yeah. Okay, so does- and you said your institution uses another list. (laughs) So what list are you, I mean, can you, or what's- how? Which list, and why do you use that?

(19:53)

Speaker 2: It was created by a former employee of Zayed University. He used four of- four of the lists I mentioned and basically, um, amalgamated them. And then if- if there were words that only appeared on one list, they were removed. So I think it was a good triangulation of the frequencies of four different lists.

Speaker 1: Um, okay, and do you think that this list now, this list helps meet the needs of the students here?

Speaker 2: Um, yeah, I think so. We haven't done any in-depth research into it, um, but I'm pretty confident, especially at the- the lower levels. I think- I think the first 2,000 words are pretty, um, common to most lists anyway. But what our list does, I think it also brings in some Arabic words that they need to use in English, technology words as well. Which perhaps have a high- have a- a low frequency and wouldn't necessarily be in the- in the top 3,000 frequent words. So I think that- that perhaps meets the needs of our learners more. Maybe some academic words as well, *skimming*, *scanning*, those kinds of words.

Speaker 1: Okay, so, um. What role do you think these frequency lists or other lists have in directing student vocabulary learning?

Speaker 2: Well, I think the major one is obviously, um, you know, the- the reading. If they're going to read a text the 3- 3,000 words are the ones they're going to see most often. And they need to know those in order to understand kind of- the figure is 90-92% of any text. Need to know those words. It's a basic- basic requirement, really. So there's no question of- of not focusing on those words first.

Speaker 1: Okay, and then just what are some of the practical problems of just starting from- of just going from a list?

Speaker 2: Well, yeah. I mean, having a list isn't, um... I mean it's- it's- it's the starting point, yeah, you need to know which words to teach. Um, and I think some teachers, um, misinterpret that and- and assume that that's what we're going to use for teaching purposes, and just give it to the students. "Here's the list, go and learn the words." (laughing) Um, but I think, like any curriculum, you know you need a grammatically syllabus, you need to have a list of items that are going to be in your materials. But obviously that- that list or curriculum needs to be transformed into useable learning materials, in some way.

Speaker 1: And, and from- to go from a list to something that's useable, what- what does that? I mean, you've talked a little bit about that, but pragmatically what does it (inaudible)-?

Speaker 2: Yeah. Creating word guides and researching each word: what- what- what's the most frequent meaning, or most useful meaning that we need to focus on? Um, and the part of the speech as well, is the verb or the noun the best one to start with? Um, and all the other aspects of word knowledge as well, the students need to know. And creating a sort of useful word guide, but even that I don't think is

enough. I think students like to use it, they like to have it on paper as something to refer to like a mini-dictionary. But then, you know, you obviously need to create some learning- learning materials where they have- actually have to interact with the words, and complete exercises and tasks from those words.

Speaker 1: Okay. So and it, like you, sounds like the things happening with the app and the new list are relatively new. What was happening prior to that and, like, why- why did a change occur?

Speaker 2: Well, we did have a word list before but I think it was obviously, um, quite out of date, cause it was based on the, uh, the old General Service List and the Academic Word List, which was built on top of the old General Service List. So I think in terms of, um, methodology and, um, usefulness it had got a bit outdated.

Speaker 1: And then the- the, if I remember right, the way it was presented, as well, was an issue. Like that it was strictly frequency list.

Speaker 2: Yeah, yeah, yeah. It was all based on, I think the materials developed was just basically to the ten most frequent words and then the next ten, and the next ten, and the next ten, all the way up. There was no sort of consideration of- of context or- or creating, um, texts that were interesting to read or kind of, you know, fitted together. And the words were completely random words that- that didn't really have any relationship at all, which perhaps wasn't the best for learning purposes or- or for writing texts. So I felt- feel sorry for those people who had to write those texts.

Speaker 1:

Speaker 2:

Speaker 1:

What's your opinion about that approach, like a strictly frequency-based approach? Whereas something that's more, you know, roughly frequency? I mean, you talked about the- being able to make texts more engaging. Are there other thing- other considerations there as well, or?

(24:53)

Speaker 2: Yeah, I suppose you could look at learnability, how easy it is to learn a- a particular word. It's meaning, how similar it is to an L- L1 translation. Um, it's form. Is the spelling or pronunciation particularly difficult? So Arabic learners might find some words more difficult to learn to spell. Um, and then is it going to be receptive, for receptive use only, or do we want students to produce it actively? So, yeah. I think it's a pretty complicated process, really. I can't say that we've- we've been that systematic in selecting which words go in which texts. Um, and that's something maybe we can- we can play around with and then adjust based on feedback and- and also the data that we collect from the app. I think that will be valuable.

Speaker 1: Oh, does the app provide- app provides data like that?

Speaker 2: Yeah. Well, that's the plan anyway. That's what we've asked the app developers to do, is back into it. So that we can create massive amounts of data on the- the usage of the app and the activities in each word.

Speaker 1: It helps show what's, like, what they had most difficulty with, and those types of things.

Speaker 2: Yeah. Yeah.

Speaker 1: That's fascinating.

Speaker 2: Each word, yeah you can see, okay: spelling, collocation, meaning, word families.

Speaker 1: Yeah, that'd be great to help direct teaching as well. If you know they're having trouble with these sets of things.

Speaker 2: Yeah. The idea, also, is that the, um, the app will each- each user will have their own, um, list of weak words. Based on how well they've done. So that's something that will then generate quizzes unique to each learner so they can go back and focus on just the weak ones.

Speaker 1: Wow.

Speaker 2: But then also the teacher can see as well, if there's any common weak words. So yeah, that might inform the word lists as well.

An ideal solution for your context

Speaker 1: Right. Well, that's great. Okay, so, um. So, um, in an ideal situation, um, how would you like to see voc- vocabulary acquisition directed for students at your institution?

Speaker 2: Um, well I think we're sort of going in the direction I'd like it to go. Um, I mean, it's obviously something that students have to take a lot of responsibility for themselves. Just not enough class hours to- to teach the breadth and the depth of every knowledge that they need. Um, and we're also doing a lot of extensive reading as well, which should reinforce a lot of their receptive vocabulary knowledge. Um, I suppose what we could do is perhaps, try to link- link vocabulary more, integrate it more, in the syllabus. In terms of productive skills. So perhaps identify, um, in each block, you know, target four or five of the ten words that the teacher actively encourages students to produce in their writing. Because it's, you know, it seems more- they seem useful words. We want to see in their writing. Maybe that's something we could- we should do more of.

Speaker 1: So like an active and passive, kind of. Focus more on words that are-

Speaker 2: Yeah. I think so. Try and push- push the learners a bit more to- to produce the words. Cause sometimes I think they just, you know, they see the word they interact with it, it's there in their receptive knowledge, but it needs a bit of pushing from the teacher to- to move into the productive.

Speaker 1: And you think that's mostly, like, writing or could- would it be speaking as well?

Speaker 2: Yeah, I suppose a bit more speaking. But obviously, being in University, they tend to have to write a lot, produce a lot of essays and reports.

Speaker 1: Okay, um, and then so just kind of, like, a general question. How do you think word lists, overall, are likely to gen- to develop in the future?

The future development of word lists

Speaker 2: Hm, that's a good question. I guess they'll become a lot more flexible. They'll change, you know, every second. They'll be online and data will feed in all the time and constantly updating frequencies and- and, um, um, usage. And, um, you know, um, the examples that- that we'll have access to will hopefully be the most up to date ones. And new words will come in, you know. So, yeah, maybe that might be something that technology will add to the word lists, they won't be so fixed.

Speaker 1: I haven't thought about that. Right.

Speaker 2: Perhaps as they are now. They'll be constantly changing, updating. And hopefully as well that might feed into digital materials so texts might, you know, automatically change. I mean, maybe that won't happen, you know, um, um, very often. In terms of, you know, language doesn't change day by day, but, you know, month by month.

Speaker 1: But usage does, you know, year by year.

Speaker 2: Yeah, maybe.

Speaker 1: All right, thank you very much....

Appendix F: Sample of Coding in Nvivo (see Appendix E. p.1)

The screenshot displays the Nvivo software interface. On the left, a sidebar contains a tree view with categories: SOURCES (Internals, Externals, Memos), NODES (Nodes, Cases, Node Matrices), CLASSIFICATIONS (Source Classifications, Case Classifications), COLLECTIONS (Sets, Memo Links, Annotations), QUERIES (Queries, Results), and MAPS (Maps). Below this is a section for 'OPEN ITEMS' listing 'Interview 1 WR Cleaned' and 'Practical Problems working from a list'.

The main window shows a table of nodes with the following data:

Name	Sources	Refere...	Created On	Created By	Modified On	Modified By	Color
Lists meeting the needs...	4	4	Feb 3, 2017, 13:05	TB	Feb 3, 2017, 18:11	TB	
Other regions - probs wi...	5	5	Jan 21, 2017, 11:49	TB	Jan 21, 2017, 12:44	TB	
Practical Problems worki...	7	11	Feb 3, 2017, 13:07	TB	Feb 3, 2017, 18:20	TB	
Problems with Vocab W...	10	13	Jan 21, 2017, 11:47	TB	Jan 21, 2017, 20:53	TB	
Role of lists in directio...	5	5	Feb 3, 2017, 13:06	TB	Feb 3, 2017, 18:12	TB	
Problems with Vocab What is Vocab							

Below the table, there are tabs for 'Summary' and 'Reference'. The 'Reference' tab is active, showing a list of references for the selected node. The first reference is highlighted:

Internals\Interview [redacted]
2 references coded, 11.30% coverage

Reference 1: 7.68% coverage

The main text area displays the following content:

kay, so, and then now to the general issue of vocabulary in your program. So to start with, can you tell me some of the difficulties that students in your program have with vocabulary and why you think this might be?

Speaker 2: Hm, well. I mean, firstly, I think the obvious one is just the lack of breadth of vocabulary. They just have a limited lexical knowledge. The number of words that they know is very limited. I think that's one of the factors that impacts on their very poor reading skills, as evidenced by the IELTS score of 4.6, I think, is the average for Emirati- Emirati learners in the UAE. Um, but then also the depth is lacking as well, so it's very limited collocational knowledge to use which words with which. Um, and then obviously spelling as well, that's a huge weakness. The difference between English and Arabic scripts. The lack of, short vowels in- in Arabic. So that's a major problem, is spelling.

Speaker 1: And why- why do you think they they come into the program with these difficulties?

Speaker 2: Why do they come into the program with these difficulties? Because they haven't had English in school, I guess. (both laughing) Um, yeah, the schools. I mean, I'm not criticizing the schools but they- they haven't obviously been prepared enough for... I mean, obviously, there's a lot of students who come in who are direct entry who have been fortunate enough to go to private schools in Dubai. So they've had- they've been learning through English so they're the ones who go in directly. And then the ones who come to us tend to be the ones who've been to local schools so their, often, their English isn't quite