

**A STUDY OF THE EFFECTS OF AN UNDERGRADUATE  
VOCABULARY PROGRAMME ON VOCABULARY  
DEVELOPMENT AND ACADEMIC LITERACY**

by

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## **DECLARATION**

I declare that *A study of the effects of an undergraduate vocabulary programme on vocabulary development and academic literacy* is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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Signature

(Mrs J. Izaks)

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Date

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## **SUMMARY**

This study examined the vocabulary and academic literacy levels of undergraduate students at the University of Namibia, as well as the effects of an explicit and an implicit vocabulary programme on vocabulary development and academic literacy. The study also sought to determine the effects of the programmes on students' attitudes about vocabulary and explicit vocabulary strategies. The relationship between students' vocabulary size, academic literacy levels, and their self-assessment of their vocabulary knowledge was examined.

Many students had not reached the desired word mastery and did not have adequate academic literacy skills to cope with the demands of university. Students in the explicit group modestly improved receptive vocabulary knowledge at the end of the intervention but there was no significant improvement in academic literacy skills. Overall, students showed an increase in positive responses regarding their attitudes to vocabulary.

Key words: receptive vocabulary knowledge, word frequency levels, academic literacy, explicit and implicit vocabulary programmes

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# Chapter 1

‘The heart of language comprehension and use is the lexicon’ (Hunt & Beglar 2005).

## 1.0 Introduction

Vocabulary has always been synonymous with education in general and with literacy in particular. A broad definition of literacy, namely the ability to read and write, encompasses the importance of vocabulary. Vocabulary, broadly speaking, refers to the words of a language or the words known to a person. We read words in order to make meaning of a text, and we use words when we write to express our ideas and thoughts. Similarly, we listen to words to make sense of spoken communication and we communicate verbally using vocabulary. Despite the axiomatic role of vocabulary in communication, this area in language teaching and learning is surprisingly more often than not a neglected area.

In essence, vocabulary knowledge plays a critical role in language proficiency, in all four language skills of listening, reading, speaking or writing. Consequently, it is important to have an adequate vocabulary in order to take part in communication. Furthermore, research seems to confirm that knowledge of vocabulary is fundamental in the additional language (AL) classroom, at all levels of education (Cooper 1999; Stæhr 2008).

An important construct in vocabulary studies is that of word family, which refers to all the words that belong to the same ‘family’, i.e. the headword and the derivatives, for example the headword *academy* has the following members in the ‘family’: *academic, academically, academics* and *academies*. Nation (2006) states that knowledge of 6000-7000 word families is needed to cope with spoken discourse. Despite a paucity of empirical research regarding the relationship between vocabulary knowledge and listening, the few studies done in this area have found that there is a significant correlation between listening comprehension and receptive vocabulary knowledge (Laufer 1992, Qian 2002 & Stæhr 2008). Moreover, many researchers have found a significant correlation between reading and vocabulary size for example Stæhr (2008). In addition, Nation (2006) concludes from a study based on data from the British National Corpus, that we need knowledge of between 8000 and 9000 word families to read written texts such as newspapers and novels. Consequently, it is important to have a large vocabulary to deal with written and spoken language, particularly in the educational context.

Throughout research in AL acquisition, much attention has been paid to grammar and discourse related aspects of language proficiency. A focus on the role that vocabulary plays in using the AL was, until the late 1980s and early 1990s, a largely neglected area (Zimmerman 1997; Schmitt 2002). Since then, current research in the field of AL acquisition indicates that vocabulary should play a more prominent role in English AL curricula, especially in formal education (Paribakht & Wesche 1993; Zimmerman 1997; Schmitt 2008). A review of the literature shows that the initial focus on vocabulary was primarily on the word as a single unit, i.e. the single lexical item. During the 1920s and 1930s frequency counts were done to determine the frequency of a word's occurrence in a sample of texts, resulting in the compilation of basic word lists (§2.2). However, vocabulary only gained status in vocabulary teaching and learning during the late 1980s and early 1990s due to computer-aided research. Focus shifted from the single word to lexical phrases, i.e. multi-word units (to be discussed again in §2.4.7). In addition, idioms, i.e. combinations of words that have figurative meanings, also became an area of focus (Amiryousefi & Dasterdi 2010).

As Nation (2006) has argued, having an adequate vocabulary is a criterion for reading comprehension. Halliday (1994, in Eggins 2004) argued that language is structured and that our linguistic choices are determined by the context in which we find ourselves. University students thus have different vocabulary demands than people who use language for everyday transaction or for business, for example. Moreover, the language used at university is different from that of spoken discourse. The register and style differ from everyday language. For example, the words are different. In addition to high frequency words that occur in both spoken and written language, academic language includes academic and technical words (§2.2). Furthermore, the way we use language in the formal education context is different from that of spoken language. The former is more referential and informative than the latter. In other words, academic language refers to academic content pertaining to specific disciplines and provides factual information, as well as arguments, ideas and theories.

In addition, Cummins (2001) makes a distinction between basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP). BICS is defined as the 'cognitively undemanding manifestations of language proficiency in interpersonal situations' and CALP as 'the dimension of language proficiency that is related to literacy skills' (Cummins 2001, 112). In other words, BICS refers to the language we use in informal contexts such as in conversations with friends,

relatives and peers. CALP refers to the language we use in formal contexts such as at school and university. Consequently, although we do not need to know as many words when conversing about everyday situations, the situation changes when we move to formal education. Academic discourse and the use of written language (reading and writing) require knowledge of far more words than the use of spoken language. In addition, Cummins (1986) also proposes that there is a relation between academic words used in formal education and CALP.

As an educator currently working at the University of Namibia and more specifically because I teach at the Language Centre which provides academic support to students at the university, I developed an interest in the field of vocabulary studies. Before teaching at university I taught English as a second language (ESL) in secondary school for several years. Throughout my years as an educator in Namibia, I observed that additional language (AL) learners of English struggled with words in English. I noticed too that little attention is paid to vocabulary learning and teaching in the classroom in primary and secondary schools, and that the relevance of vocabulary in the language of learning and teaching (LoLT) is devalued. The same is also applicable at tertiary level. Everyone says vocabulary learning and teaching is important but nothing much is done about it. For this reason, I wanted to approach the field more scientifically, and not only rely on anecdotal knowledge and evidence but undertake a vocabulary study which would make a scientific contribution to a field of study that to date has not received much attention in Namibia. Consequently, my objective was to conduct a research study focusing specifically on vocabulary development and academic literacy.

The present study aimed, firstly, to assess the vocabulary and academic literacy levels of students at the University of Namibia (UNAM) and, secondly, to examine the relationship between these and, secondly, to investigate the effects of an undergraduate vocabulary programme on their vocabulary development, academic literacy and attitudes.

Vocabulary programmes are often drawn up with the best of intentions but are not properly systematised. A language learning programme such as a vocabulary one should be balanced and provide opportunities for learning. Nation (2007), for example, argues that opportunities for learning should comprise four strands. The first involves learning through receptive input, that is, through reading and listening. The second strand deals with using the language productively. The third strand includes

explicit learning of the language to be learnt. The last strand deals with developing fluency, that is, providing opportunities to use the information that is, studied (Nation 2007). I therefore decided to conduct the study in a systematic way by implementing and comparing two different kinds of vocabulary intervention taking the four strands into account. The first entailed explicit teaching of vocabulary and vocabulary learning strategies, while the second involved incidental learning of words through increased exposure to vocabulary through the reading of articles and ‘talking about the text’. The reasons for this are explained later in this chapter. The study also focuses on vocabulary frequency levels and the relationship between academic word knowledge and academic literacy. Despite the importance of teaching and learning not only single words but also lexical phrases, the current study focused only on single words and word families (§2.3). Learning of words is incremental in nature and the words used in the study are a specific type of vocabulary. In addition, it was more appropriate to use academic words in this context to explicitly teach the vocabulary strategies rather than lexical phrases.

The following sections will describe and discuss the background and context of the research study, briefly present the theoretical foundations of the study and identify the research problem, research questions and the hypotheses, and briefly outline the methodological design of the study. Lastly, the chapter will outline the structure of the rest of the dissertation.

## **1.1 Background to the research study**

In order to better understand the vocabulary challenges that Namibian English AL students face and to situate my own research study within a broader landscape, this section will shift to the larger socioeconomic, sociolinguistic and educational context of the country.

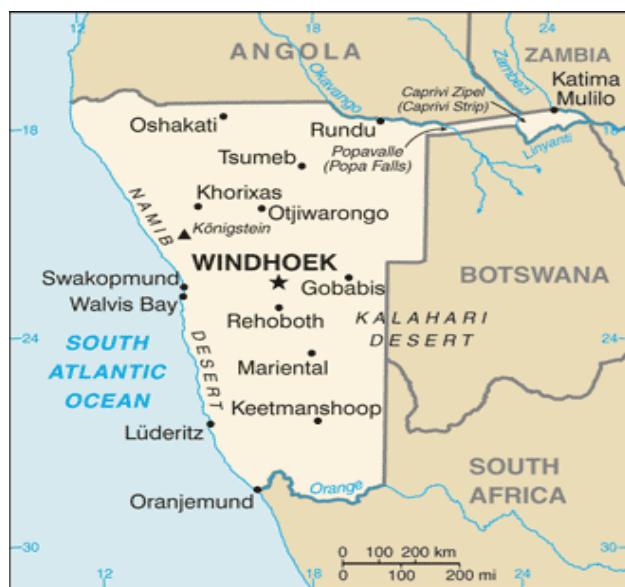
### **1.1.1 A socioeconomic perspective**

The Republic of Namibia is situated in southern Africa and borders on the Atlantic Ocean. Neighbouring countries to the north, east and south include Angola and Zambia, Botswana and South Africa (Figure 1.1).

Namibia has a population of 2.1 million which comprises the following ethnic groups, as officially designated in state documents: Oshiwambo, Otjiherero, Nama/Damara (Khoekhoegowab), San, Coloured, Baster, Kavango, Caprivian, Ovahimba, Tswana and White.

The country is divided into fourteen regions and is sparsely populated, hence it is classified as the country with the second-lowest population density in Africa. One of the disadvantages of this phenomenon is that children have to travel long distances to schools in certain regions, which negatively affects access to formal education. Namibia currently has a total of 1698 primary and secondary schools, of which the majority are government schools. In addition, there are about 119 private schools in the country (Ministry of Education 2014). Despite this, the country is currently experiencing a shortage of schools to cater for its approximately 600 000 learners. Lastly, institutions of higher learning include the University of Namibia (UNAM), the Polytechnic of Namibia (PON) and the International University of Management. These three institutions are all situated in Windhoek although satellite campuses for UNAM and PON are found in certain regions throughout the country.

**Figure 1.1 Map of Namibia (<http://www.lib.utexas.edu/maps/cia13/namibiasm2013.gif>)**



According to Namibia's Education Act (2001), school attendance is compulsory for the first seven years of primary school, i.e. for children aged between 6 and 16, and this phase of education is free. Even though the average age for ending primary school is thirteen, the country's socioeconomic factors sometimes hinder access to quality education. Some children may start school slightly older, and some may repeat grades. This results in an increase in age for compulsory attendance, which is why many

children older than 13 leave school at the end of compulsory attendance. The Namibian school system consists of the following phases:

- Grades 1-4 (lower primary)
- Grades 5-7 (upper primary and end of compulsory school attendance)
- Grades 8-10 (junior secondary)
- Grades 11-12 (senior secondary).

After Namibia gained independence in 1990, it continued to use examination systems from South Africa, namely, the Joint Matriculation Board (JMB) in private schools and the Cape Education Department (CED) in state schools. In 1995, Namibia adopted the International General Certificate for Secondary Education (IGCSE/HIGCSE) examination which was written at the end of Grade 12. This examination was written until the implementation of Namibia's own national examination, the Namibia Senior Secondary Certificate (NSSC), which was implemented in 2006, replacing the IGCES/HIGCSE examination.

In 1991 the then Ministry of Education, Youth, Culture and Sport reviewed the language policy for schools and developed a policy document 'Education and Culture in Namibia: The Way Forward to 1996' (Ministry of Basic Education, Sport and Culture 2003, 1). The policy stated that learners should be taught through the medium of their first language (L1) in Grades 1 to 3, and thereafter English should be used as the medium of instruction in schools from Grade 4 to Grade 12 (Ministry of Basic Education, Sport and Culture 2003). Shortly thereafter the newly formed Ministry of Basic Education, Sport and Culture (MBESC) developed a new language policy. This document, called 'The Language Policy for Schools: 1992 – 1996 and Beyond', was formulated and implemented in order to promote the use of the L1 in conjunction with English in schools and tertiary institutions (Ministry of Basic Education, Sport and Culture 2003, 2).

Despite the many changes that took place in Namibia's education sector, the country's high rate of income inequality and unemployment hamper quality education for many Namibians. According to

statistics (Index Mundi<sup>1</sup> 2013), Namibia has ‘one of the world’s most unequal income distributions, as shown by Namibia’s 59.7 GINI coefficient’. The GINI coefficient is a measure of statistical variability representing the income dispersion of the residents in a country (Wikipedia 2014). Moreover, the United Nations Development Programme’s (UNDP) Human Development Report (2014) showed that 31% of Namibia’s population live on N\$ 2.00 per day. Furthermore, the Central Bureau of Statistics document (2008) stated that 28% of Namibians are classified as poor, i.e. their monthly income is below N\$ 262.00; and 14% are classified as extremely poor (monthly income below N\$ 184.00). The socioeconomic context of many Namibians negatively affects their quality of life and subsequently, the quality and importance of formal education.

Worldwide, research shows that poverty and low literacy levels go hand in hand (Bhattacharya 2010). Eamon (2002, in Bhattacharya 2010), for example, found that poverty correlated with reading achievement. She studied adolescents aged between 12 and 14 and concluded that economic challenges limited parents’ ability to provide the necessary support, i.e. cognitive and emotional help, which has a negative effect on their children’s reading achievement. Studies also show that insufficient literacy experiences at home can result in low reading achievement (Bhattacharya 2010). Purcell-Gates, L’Allier and Smith (1995, in Bhattacharya 2010), for example, found that insufficient literacy practices at home, such as only using print materials for entertainment and daily routines, seemed to have an adverse effect on the literacy development of children. They also found that children from poor families who regularly used print materials in a variety of ways developed their literacy more. A lack of literacy practices in the family seems to affect literacy levels of children more than poverty itself. According to Hart (2011, in Dell 2011), children from American middle-class families get about 1000 hours of parent-child storybook reading before they enter formal education. These children are exposed to vocabulary through listening to classic stories, looking at pages and turning them, becoming familiar with visual literacy and print based literacy, as well as enjoying the shared storybook reading activity. This inevitably enriches their vocabulary base and puts them at an advantage compared to children who are only exposed to high frequency words common in spoken discourse. Children who come from disadvantaged communities where books are not available are unfortunately negatively affected and are relatively behind middle-class children with regard to vocabulary size and reading success. As a result, children who have not been exposed to print material (even if it is only read to them) lag behind those who have been exposed

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<sup>1</sup> An Internet website containing a country’s statistics

to print material, putting them at a disadvantage from the beginning. The exposure to written language that children get from storybook reading is different to exposure to language during conversations, i.e. spoken language.

In addition, Cunningham and Stanovich (2001, 146) argue that ‘an early start in reading is important in predicting a lifetime of literacy experience’. In other words, children who start reading at an early age are more likely to read more as they grow up, resulting in improved measures of vocabulary, general knowledge and verbal intelligence (Cunningham & Stanovich 2001). Children from impoverished backgrounds where print materials are limited or non-existent are negatively affected and do not have the opportunity to improve vocabulary and general knowledge through reading. As a result the ‘Matthew effect’, a term meaning that the ‘rich get richer’ and the ‘poor get poorer’, can be applied to this scenario (Cunningham & Stanovich 2001). In other words, those children who are privileged by having access to books from an early age and whose parents read to them at a young age will in all likelihood read more as they grow older which ‘will make them smarter’ (Cunningham & Stanovich 2001, 147). On the other hand, those children who do not start reading at an early age will experience difficulty in reading. This is likely to lead to a decrease in reading habits, which in turn can lead to lower reading levels and exposure to reading materials which such children find difficult to understand. Consequently, with regard to reading, the poor readers become poorer readers and the good readers become better readers. Namibia’s lack of reading culture is observed throughout its regions. Numerous reading campaigns have been initiated in the past and various stakeholders still continue to encourage reading. Many Namibian children do not read due to lack of reading materials or due to the lack of reading culture in general and are, as a result, at a disadvantage when it comes to vocabulary development and literacy, especially academic literacy.

### **1.1.2 A linguistic profile of Namibia**

Namibia has thirteen national languages namely, Afrikaans, English, German, Oshikwanyama, Oshindonga, Rukwangali, Otjiherero, Rumanyo, Setwana, Silozi, Thimbukushu, Ju/'hoansi and Khoekhoeogowab. Two of the three European languages, Afrikaans and German are national languages as a result of Namibia’s colonialization by Germany and then South Africa. After Namibia gained independence in 1990, English was chosen as the sole official language despite the fact that Afrikaans was the lingua franca. In addition, English is the primary language of learning and teaching. The other

ten national languages are indigenous to the country and are taught as subjects at primary and secondary levels of formal education.

Eight of the ten indigenous languages belong to the Bantu language group namely, Oshikwanyama, Oshindonga, Rukwangali, Otjiherero, Rumanyo, Setwana, Silozi and Thimbukushu. Khoekhoegowab belongs to the Khoe language group and Ju/'hoansi belongs to the Khoisan language group (Wikipedia). These indigenous languages are also spoken by Namibia's neighbouring countries.

As stated in Namibia's Language Policy, children in schools are taught through the medium of their L1 from Grades 1 to 3, followed by the transition to English as the medium of instruction in Grade 4 (MBESC 2003). Parents can, however, opt to have their children taught through the medium of English from Grade 1 and this is common practice throughout the country despite the benefits of mother tongue instruction and the fact that English is not their L1. Moreover, learners are required to study two languages as subjects from Grade 1 onwards, of which one must be English (MBESC 2003). English is therefore a compulsory subject from Grade 1, as well as the LoLT from Grade 4 to Grade 12.

In addition to English, any one of the other national languages must be chosen as a subject as prescribed by the Language Policy, and is taught from Grades 4 to 12. All the national languages are available on first language level and some have well developed written orthographies (National Institute for Educational Development 2014). Orthographies include dictionaries, grammar books and literature (poetry, drama and prose). All the languages have textbooks which are accessible from local publishing houses such as Namibia Publishing House. Even though all the languages are offered up to Grade 12 level and have access to literature suitable for the classroom in Grades 10 to 12, only Oshindonga and Rumanyo have poetry and short story books available from Grades 1 to 12. Most also have dictionaries and in some languages such as Silozi, Rukwangali, Rumanyo and Thimbushu, glossaries and orthographies are available in the absence of dictionaries. However, only Afrikaans and English are available as second language options, with German and French as foreign language options (MBESC 2003). Finally, in addition to being the country's official language, English is also the primary language used in all sectors of Namibia's education.

### **1.1.3 Literacy in Namibia**

A broad definition of literacy refers to the ability to read and write at a basic level, i.e. ‘to read and understand simple printed paragraphs, write simple letters and count and recognise figures 1 to 1000’ (ACCU & UNESCO 2001, 13). According to statistics (Index Mundi 2013), the literacy rate in Namibia in 2013 was at 89% (female literacy at 88.5% and male literacy at 89%). This rate is defined by the number of people in the country aged 15 and older who are able to read and write at a basic level. Being able to read and write at a rudimentary level is, however, not adequate for a nation having to cope with the knowledge and information economy of the 21<sup>st</sup> century.

Namibia has made great strides in promoting literacy. The country has a national literacy programme which was launched in 1992 and established family literacy centres at rural schools across the country to help parents and guardians of Grade 1 learners. These centres assist illiterate parents and caregivers of Grade 1 learners to read and write. As a result of the national literacy programme, Namibia was awarded the United Nation’s Educational Scientific and Cultural Organisation (UNESCO) Internal Literacy Prize in 2013, attesting to the government’s continuous efforts since 1992 to promote and maintain literacy. The African Economist Magazine (2013) ranked the country fifth in literacy rankings in Africa.

However, the general literacy development promoted in the country is aimed more at adult learners and is a different type of specialised knowledge from the literacy required for formal education at school. The latter type of literacy entails the ability to read and write beyond the basic level. That is, to have the reading skills to ‘read to learn’, to understand the content of academic genre, as presented in textbooks, prescribed novels and poems, and other prescribed books. In addition, writing in formal education entails more than just writing simple letters. It entails writing sentences beyond the basic level that eventually become coherent paragraphs. Higher up the educational ladder, writing demands the ability to describe, argue and discuss issues in extended discourse relating to different content subjects. These literacy skills are more advanced than merely being able to read and write at a basic level. Despite the country’s high adult literacy rate, there is evidence that the literacy rates within the formal education sector do not meet the required standard. According to the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), which provides information about the levels of reading and mathematics achievement of Grade 6 learners across 14 African countries, Namibia is below the overall SACMEQ average in reading and mathematics (SACMEQ 2011). Statistics from 2011 also show

that of the 17 255 fulltime students who wrote the Namibia Senior Secondary Certificate (NSSC) examinations, only 3 640 (i.e. 21%) qualified to study at tertiary institutions. Furthermore, results of the NSSC in 2012 show that 7 500 of a total of 19 027 students (39.4%) who wrote the examinations met minimum university admission requirements (Ikela 2013). In other words, only a small percentage of learners who finished school qualified for entry to tertiary institutions. Even though the number has increased since 2011, 39% is still worrisome as it means that about 61% of these students cannot continue with tertiary education and need to find employment or apply to a vocational training centre. It is estimated that 42% of Namibia's youth between the ages of 15 and 24 are unemployed, and these young people face a bleak future.

In addition to the types of literacy mentioned above, academic literacy, prevalent at higher institutions of learning in general, refers to the skills of critical thinking, reading, speaking and writing within academia. The foundation of these skills should, however, already be laid in primary and secondary school. During a colloquium on the state of academic literacy in South Africa, Weideman (2012b) argued that language competence, i.e. how proficiently we use language, involves more than just the four language skills namely, reading, writing, listening and speaking. He stated that academic language is 'imbued with cognitive as well as analytical processing' (Weideman 2012b, 4). In other words, we have to use language and perform tasks or activities, for example, explain, define, compare, agree or disagree with, or conclude something. According to Henderson and Hirst (2007), academic literacy is traditionally seen as a set of skills that has to be mastered by students so that they can successfully do the tasks expected of scholars. However, they argue that the social, cognitive and linguistic dimensions should be taken into consideration when we talk about academic literacy, as it entails more than having a set of skills. Academic literacy encompasses the skills to read and listen to academic language, as well as to write and speak using academic language. By so doing, students interact with the academic environment and process information pertaining to the world of academia. This construct is discussed in more detail in Chapter 2.

This study focuses specifically on one of the components of academic literacy, viz, vocabulary, and explores, *inter alia*, the relationship between vocabulary knowledge and academic literacy. In addition, it compares the effects of an explicit vocabulary programme with that of an implicit vocabulary

programme to see how they affected vocabulary development and academic literacy during a 10-week intervention period.

In general, students at university acquire subject-specific knowledge by reading prescribed texts (reading to learn) and attending lectures. But unlike the lecture situation, reading to learn is typically done by the individual student. As a result, the student should understand what s/he is reading in order to explain, define or compare the content of the texts. Furthermore, a student should be able to use the knowledge gained from reading to develop arguments or draw conclusions, for example. For understanding to take place from reading and in order to present what we know through writing or speaking, we must make use of language, more specifically academic language. As a result, students at university should have a vocabulary large enough for reading comprehension to take place. This study focused in particular on students' receptive vocabulary. This will be explained further in Chapter 3 (§3.5.2.2).

## **1.2 The context of the research problem**

In this section the focus shifts to the more immediate context of the research problem in which the background of the institution, the environment and the conditions pertaining to the study are described.

### **1.2.1 The University of Namibia (UNAM)**

The University of Namibia is situated in Windhoek, the capital city of Namibia. It was established by an Act of Parliament in August 1992. UNAM has 10 campuses nationwide and has an annual student population of 13 000. There are eight faculties and two schools. UNAM offers diplomas, undergraduate, Master's and Doctoral degrees. To be in line with Article 3(2) of the Namibian Constitution, English is the medium of instruction at the university, with the result that a language centre was established to provide language support to undergraduate students.

### **1.2.2 The Language Centre**

The Language Centre (LC) was established in order to improve the English competence of first year undergraduate students. It is a service department rather than an academic teaching department. In addition, the LC provides academic language support to students who study through the medium of English and who, more often than not, do not have the necessary literacy skills required at tertiary level. The centre offers the following English modules to undergraduate diploma and degree students:

- English for Academic Purposes (ULEA 3519)
- English Communication and Study Skills (ULCE 3419)
- English for General Communication (ULEG 2410)
- Communication and Study Skills for Law Students (ULCL 3612)
- English Communication for Certificate Purposes (LCEC 1311).

To gain admission to the University of Namibia, a student must have obtained a minimum of 25 points in five subjects and a C-symbol in English. Those students who do not have the required C-symbol on Ordinary level in English (NSSC) are required to register for the English for General Communication (ULEG) module.

There are essentially three groups of students who register for the ULEG module. The first group of students typically obtains a D symbol on Ordinary level in English and, as a result of this, register for a diploma programme. Students in the second group also obtain a D symbol in English, but have 35 or more points in five subjects. The university admits these students to degree programmes based on the good symbols they have obtained overall even though they did not score the required C symbol in English. The third group of students are admitted to the university based on the Mature Age Entry scheme. To qualify for this scheme, these students should be at least 25 years old, should preferably have successfully completed junior secondary education and should have proof of at least five years' relevant work experience relating to the intended study programme. If these requirements are met the applicants sit for the Mature Age Entry Test consisting of four papers namely, an English Test, a General Knowledge Test, a Numerical Ability Test and a faculty specific paper (where applicable).

The general course description and expected outcomes of the ULEG module focus on improving the English language skills of first year students. Table 1.1 presents a summary of the current ULEG course outline.

**Table 1.1 ULEG course outline**

<b>Reading</b>	<b>Writing</b>	<b>Listening</b>	<b>Speaking</b>	<b>Study Skills</b>
Reading techniques: scanning, skimming	Role and purpose of writing	Listening and note taking	Demonstrating conversational skills	Dictionary work
Finding words by using contextual clues	Different kinds of writing: paragraphs, letters, essays	Understanding the role and purpose of listening	Practicing presentational skills	Referencing
Understanding text mapping	Simple, compound and complex sentences	Listening to general information	Participating in small group discussions	
Purposes of reading	Using cohesive devices	Identifying main points	Understanding speaking skills	Metacognitive strategies
Reading for content	Logical writing	Summarising what has been heard to show comprehension		
Identifying main and supporting ideas	Tenses, active and passive voice, direct and reported speech	Active listening strategies		

The current ULEG course outline primarily serves as a framework for academic support. The Centre is gradually moving to the genre approach to academic language development which will be more relevant to improving the academic literacy and vocabulary of the students.

The students enrolled for this course need to have adequate vocabulary knowledge to understand the types of texts they have to read at university, as well as to express themselves competently in the academic environment of the university. Figure 1.2 shows them participating in the various activities in the LC. At present, the students' vocabulary knowledge is not assessed in any way and vocabulary development is not explicitly or systematically addressed in any of the LC modules except in so far as new words are explained in the course of lesson periods.

**Figure 1.2 Language Centre students writing and conducting presentations**



As a result of the importance of vocabulary knowledge and the fact that academic vocabulary deserves attention within the classroom (Cooper 2000; Cunningham and Moore 1993; Marshall and Gilmour 1993), I believe that a vocabulary component is essential in the ULEG module in order to increase students' vocabulary levels and subsequently positively influence their academic literacy. One of the aims of this study is to explore what kind of vocabulary programme does this effectively. As my experience and observations of Namibian learners and students provide only anecdotal evidence, I decided to conduct a research study to acquire scientific evidence in order to find out what kind of vocabulary programme is effective in improving vocabulary knowledge.

### **1.3 The theoretical framework of the study**

The following section briefly describes the main theoretical strands that form the framework of the study. A more detailed discussion of the main constructs is presented in Chapter 2.

#### **1.3.1 Vocabulary size and depth**

Vocabulary, in general, refers to the words contained in a language. The term also refers to a language user's knowledge of words, i.e. a person's lexicon. When we refer to vocabulary we allude to either all the words in a language or the words known to someone. Moreover, the term 'word' refers to a single lexical item, whereas 'word family' refers to all the lexical items (derivatives and inflections) that

'belong' to that word. As a result, 'word family' is the preferred term throughout the discussion. This concept will be elaborated on in Chapter 2 (§2.1).

Two significant aspects pertaining to vocabulary knowledge are **size** and **depth**, and are especially relevant to vocabulary assessment. Vocabulary size, also often referred to as vocabulary breadth basically refers to knowledge of single words (Cooper & Van Dyk 2003). Nation (2001) defines this type of word knowledge as 'perceiving the form of a word while listening or reading, and retrieving its meaning'. Vocabulary size is measured quantitatively in terms of word or word family counts, and also in terms of different kinds of words or frequency levels. Simple, decontextualized, item type tests were widely used to assess vocabulary size, for example, the yes/no test and the checklist test. Research, however, found that a yes/no judgement does not suffice (Paribakht & Wesche 1993). Meara (1994), for example, provides evidence that the yes/no test worked differently for different groups of test takers. Another significant criticism is that there is the possibility of overestimation (Meara 1996). Nation's (1990) receptive vocabulary levels test is a popular measure to test vocabulary size. It is argued that there will be much less variability between test takers if multiple-choice items are used rather than a yes/no test (Nation 2012).

Depth of vocabulary knowledge, on the other hand, refers to having the understanding of the spoken and written forms of the word, i.e. knowing the word in depth requires 'a theoretical and practical understanding of all its features' (Cooper & Van Dyk 2003, 70). This type of vocabulary knowledge is more difficult to quantify. Nation (2001) relates this type of knowledge to active (productive) vocabulary. He states that active vocabulary usage includes 'wanting to express a meaning through speaking or writing and retrieving and producing the appropriate spoken or written word' (Nation 2001, 25). We generally use our passive vocabulary when we read and listen to discourse, yet sometimes the discourse can make us process a word meaning at a deeper meaning, and our active vocabulary is used when we speak or write. That is, we sometimes know the word passively, but not actively, yet certain contexts demand a deeper meaning than receptive vocabulary knowledge, and require us to use the word in speaking or writing. For example, the general meaning of *illustrate* is related to drawing or to show something, as in the following sentence: *The student illustrated her point with a diagram on the board.*

When, the word has to be used in essay question formulation, for example, it would require knowing that it means to show the meaning of something by providing relevant examples.

Knowing a word is not a simple matter. To understand or to know a word requires one to know more than just the form and meaning of the word, i.e. how the word is spelt and what it means. Besides knowledge of form and meaning, one should also have knowledge of the word's collocations (words commonly used together, e.g. *commit a crime*), grammatical form (word class, e.g. noun, verb, adverb), morphological characteristics (derivatives and inflections, e.g. the noun suffix *-ion* in English, as in *decision, precision* or the past tense inflection *-ed* as in *talked, decided*) and register traits (informal or formal context) (Schmitt & Zimmerman 2002; Laufer and Goldstein 2004). Additional features include pronunciation, as well as semantic networks namely, synonyms, antonyms and hyponyms. Knowing a word can therefore be described as having knowledge of the sum of interrelated 'sub knowledges' of a word. This is, however, not an aspect of vocabulary knowledge that was assessed in my study.

The multi componential aspect of vocabulary knowledge coupled with the fact that university students need a large vocabulary, relevant to their academic context and purposes for reading to properly comprehend their texts (cf. §1.0), has led to a re-evaluation of current vocabulary practices at the LC. In order to comprehend the type of texts used at tertiary level, students need to have an adequate vocabulary knowledge of *high frequency words* i.e. words that usually occur in all types of texts and make up a large proportion (95%) of the running words (Nation & Anthony 2013). The latter refer to the total number of words a text contains. Estimates of vocabulary knowledge required to understand a text, however, vary from 80-95% depending on the text type. Word frequencies will be dealt with in greater detail in the next chapter (§2.1). In addition to knowledge of high frequency words, students should also have sufficient vocabulary knowledge of *academic words* (words which occur frequently over a wide range of academic texts across disciplines) and *technical words* (words pertaining to a specific discipline). The more diverse the range of topics and subjects, the larger the vocabulary required (Sutarsyah, Nation & Kennedy 1994).

Cooper's (1999) study investigating the relationship between academic performance and vocabulary size shows that the most significant indicator of academic performance is academic vocabulary size. Stæhr (2008, 140) additionally argues that vocabulary size 'is *the* determinant factor for reading success'. Academic work involves a lot of reading which, in turn, requires many hours of fast, accurate and successful reading. In other words, comprehending academic texts is essential to academic performance on the whole.

Nation (2006) suggests that knowledge of 8000 – 9000 word families seems to be adequate for ESL academic coursework. Waring and Nation (2004) support the hypothesis that ESL students for whom English is also the LoLT need quite a substantial amount of vocabulary knowledge due to the heavy cognitive demands of academic texts. In addition, studies conducted have determined that for students to comprehend a text, they need to understand between 95% (Hirsh and Nation 1992; Laufer 1989; Nation and Hwang 1995) and 98% (Nation 2006) of the words in the text. Despite the difference in estimates ranging from 95% to 98%, it is generally agreed that a substantial amount of vocabulary knowledge is required for reading success, and inevitably academic performance.

The present study uses an instrument to assess passive vocabulary knowledge and not active vocabulary knowledge.

The vocabulary programme in this study entailed direct instruction of academic words and direct instruction of vocabulary learning strategies. The words explicitly taught were selected from the Academic Word List (Coxhead 1998) as the participants in the study were university students. In addition, the intervention also examined the effects of reading and talking about the text on vocabulary development. The effects of the intervention were investigated by means of qualitative and quantitative data.

### **1.3.2 Types of vocabulary**

Words in the English lexicon can be classified into five different types of vocabulary based on frequency of occurrence or occurrence in specific types of texts. The reviewed literature identifies the following types: *high frequency*, *mid frequency*, *low frequency*, *academic*, and *technical vocabulary*. The first type of vocabulary is high frequency words. These refer to words that cover a very large proportion of the running words in spoken and written texts. Michael West's (in Nation 2001) 1953 General Service List (GSL) contains about 2000 word families and is a well-known example of high frequency words. Chapter 2 provides a more detailed discussion of this type of vocabulary (§2.2). Nation and Anthony (2013) argue that the high frequency words include the most frequent 3000 word families and that these 3000 words are important as they are needed to gain 95% coverage of the running words in the majority of text. In other words, knowledge of these words is helpful in comprehending a text without relying on

assistance (via a teacher, dictionary or peer). Moreover, Stæhr (2008) investigated how much vocabulary is needed for English as a foreign language (EFL) learners from secondary education to perform well in listening, reading and speaking. He used a mastery level of 26 out of 30 (i.e. 86%) and found that “receptive knowledge of the most frequent 2000 word families made a difference for the EFL learners of this study with regard to obtaining a score above average in the tests” (Stæhr 2008, 149). The study also showed that those who did not master the 2000 word level performed below average in the reading and writing tests (Stæhr 2008).

The second type is classified as mid frequency vocabulary. According to Schmitt and Schmitt (2012), the vocabulary between high frequency words (3000) and low frequency words (10 000) should be labelled as an additional type. That is, this type of vocabulary includes the 4000, 5000, 6000, 7000, 8000 and 9000 word levels (§2.2). The 5000 word level, in particular, correlates highly with reading comprehension (Kameli & Bin Baki 2013). The third type refers to the low frequency vocabulary, i.e. words at the 10 000 word level and beyond. Nation (2001) argues that there are a large number of words that occur very infrequently and only cover a small percentage of any text, for example, *gibbous*, *oppidan* and *phytogeography* (Coady & Huckin 1997).

The fourth type of vocabulary is academic words. Academic words refer to a specialised type of vocabulary that occurs frequently across academic disciplines, e.g. *aggregate*, *empirical*, *differentiate*, *fluctuate* and *hypothesis*, but infrequently in everyday conversational discourse, and can be found in the Academic Word List (AWL) compiled by Coxhead (1998). This list contains 570 word families and is ‘based on a 3,500,000 token corpus of academic English’ (Nation 2001, 188). These words are important to know for L2 learners intending to do academic studies in English (§2.2).

The fifth type of vocabulary is technical vocabulary which can also be referred to as specialised vocabulary. According to Nation (2001), technical words are commonly limited to one subject area. In other words these are words that are commonly used and encountered in a specific discipline, e.g. *anaemia*, *biopsy* and *malignant* are common to the medical profession and *affidavit*, *cross-examination*, *litigation* and *re-direct* are commonly used in legal contexts (§2.2). We can assume that students’ exposure to these words in their subject areas increases their chances of knowing these words passively (receptively).

Students intending to do academic studies should have reached mastery of the high frequency and mid frequency word levels, and the academic words as these generally account for a huge percentage of the running words of academic texts. This argument is supported by Cooper's study (2000), which assessed the vocabulary size of undergraduate students found a positive correlation between the command of academic vocabulary and academic performance.

The discussion above highlights the importance of adequate vocabulary knowledge in order to improve one's language proficiency, especially regarding reading comprehension which is a very important skill for university students. The study therefore focusses primarily on the effects of a vocabulary intervention programme on vocabulary development and academic literacy.

### **1.3.3 Incidental versus explicit vocabulary development**

There are two basic ways in which words are acquired are explicitly, that is, through direct instruction of words, or incidentally, where words are learnt by reading extensively, through oral interaction or listening to radio or television.

Direct instruction involves the explicit teaching of words. Explicit focus on vocabulary has been shown to be effective in terms of vocabulary gains (Schmitt 2008). Many empirical studies have drawn positive conclusions regarding the effectiveness of an explicit focus on vocabulary (e.g. Lee 2003, Laufer 2005, Smith 2004). These findings support earlier research on explicit vocabulary instruction. Paribahkt and Wesche (1993), for example, found that contextualised learning (in which the language is put in context and not presented in isolation) through reading is effective, but that contextualised reading plus explicit vocabulary instruction was superior. In another study, Zimmerman (1997) also found that systematic instruction of words can result in students learning certain target words in a manner superior to simply having them do free and assigned reading.

Incidental learning of words, on the other hand, entails implicitly learning words through exposure to them by means of reading or listening. There has been ample research based on vocabulary acquisition as a result of exposure to reading (Wesche & Paribakht 1994; Coady & Huckin 1997; Rott 1999). Krashen (1989), for one, asserts that we acquire a large portion of vocabulary through reading, while Nagy and Herman (1984), and Nagy and Anderson (1984), found that large numbers of words can be acquired by means of incidental learning from written texts. Reading is very important because mid

frequency words occur more frequently in written than in spoken language, thus their chances of being encountered and learned are more likely through exposure to written language. Although the incidental acquisition hypothesis originally comes from L1 studies, it can also be applied to the L2 situation. The incidental acquisition hypothesis estimates that L1 children acquire approximately 3000 words a year, most of which is through incidental learning. Although the importance of reading in acquiring vocabulary is widely accepted, the pick-up rate, i.e. actual acquisition of new words, is contested. Earlier research found very low pick-up rates ‘with about one word being correctly identified out of every 12 words tested’ (Horst, Cobb & Meara 1998). Later research portrayed a different picture. Studies indicated significant vocabulary gains as a result of reading (Waring & Takaki 2003; Horst 2005). In a study by Pigada and Schmitt (2006), the relationship between incidental vocabulary acquisition and reading was investigated. They found significant increases in vocabulary knowledge of target words and improvements in spelling. Subsequently, English language courses and subjects should include extensive reading as it is central to language learning.

Despite limited research on incidental vocabulary acquisition by means of listening (Elley 1989, Brett, Rothlein & Hurley 1994), a few research studies have investigated this and produced positive findings. Vidal’s (2003, in Schmitt 2008) study investigated whether vocabulary acquisition took place during short academic lectures and found that vocabulary was learned, albeit a small portion. Moreover, in a study by Al-Homoud (2007, in Schmitt 2008), Arab students studying in the United Kingdom listened to news broadcasts every day for seven days and findings showed that an average of two words were learned out of a total of 40 new words over seven days. As is the case with reading, vocabulary can be acquired through listening. The main point is not so much whether incidental vocabulary acquisition happens or not but how effective it is for older ESL learners.

The current study included incidental vocabulary acquisition by means of an implicit vocabulary intervention over a 10-week period, where students were required to read one academic article every week and talk about the text. The explicit vocabulary intervention comprised direct instruction of vocabulary and vocabulary strategies.

## **1.4 The research problem**

As a student and an educator, I firmly believe that vocabulary knowledge is pivotal to language competence, and this position is supported by empirical evidence in the field. At tertiary level, in particular, a large vocabulary is required in order for students to cope with the linguistic demands of academic studies. In addition, students spend a lot of time reading in order to make sense of the world and the field of study in which they find themselves. Having an inadequate vocabulary can hamper academic performance as students struggle to understand the texts they are required to read, and experience difficulties in expressing themselves in writing or speaking, especially L2 students. Students entering university should have passive and active knowledge of both high frequency and mid frequency vocabulary. This does not, however, appear to be the case at UNAM.

As a result of the socioeconomic context of the country and concomitant lack of access to rich and varied types of print-based materials, many students lack the vocabulary knowledge required at this level of education. Reading is mostly done in classrooms during English lessons. In many cases, learners only have access to print materials at schools. At some schools learners do not even have their own copy and have to share print materials. Although a lot of emphasis is placed on adult literacy in Namibia, state schools should become sites of literacy development. Furthermore, the complex nature of academic literacy, i.e. having critical language skills and being able to interact with the academic environment, further complicates academic studies. I am of the opinion that UNAM faces challenges as students entering the university do not seem to have the necessary academic literacy and vocabulary knowledge to cope with academic work. Consequently, the aims of this study were to assess the vocabulary and academic literacy of first year university students, and to investigate the effect of a vocabulary teaching programme on university students' vocabulary development, academic literacy and attitudes about vocabulary. In addition, I wanted to find out whether there was a relationship between knowledge of academic words and academic literacy, and I examined the effect of vocabulary learning strategies on remembering words.

The aims, research questions and hypotheses are outlined below.

## **1.5 Research aims, research questions and hypotheses**

The study's threefold aims were to (i) assess the vocabulary and academic literacy levels of university students and explore the relationships between vocabulary and these levels, and (ii) to explore students'

attitudes about and perceptions of aspects of vocabulary. The study also (iii) investigated the effect of two different vocabulary intervention programmes on vocabulary levels, academic literacy and attitudes. Two groups of students were used and each one randomly assigned to an explicit group and an implicit group. Each group received different treatments to establish the efficacy of the two methods in developing students' vocabulary and academic literacy levels. Academic literacy was measured using the test of academic literacy levels (TALL) (to be explained more fully in §3.5.2.4).

The study is driven by three aims, namely:

- To investigate the effects of two different vocabulary programmes on vocabulary development, academic literacy and attitudes about aspects of vocabulary.
- To explore the relationship between knowledge of words at different levels and academic literacy.
- To examine the effect of vocabulary learning strategies on remembering words.

### **1.5.1 Research questions and hypotheses**

The following research questions and hypotheses were formulated based on the aims of the study:

- RQ1:** What are the vocabulary and academic literacy levels of the first-year students who participated in the study?
- RQ2:** In what way do the explicit and implicit vocabulary programmes have an effect on students' vocabulary development?

This research question was formulated as a research hypothesis as follows:

**H1:** *There are significant differences in the mean scores of the pre- and post-vocabulary levels test (VLT) of the explicit and implicit groups.*

- RQ3:** In what way do the explicit and implicit vocabulary programmes have an affect on students' academic literacy levels?

This research question was formulated as a research hypothesis as follows:

**H2:** *There is a significant difference in the mean scores of the pre- and post-TALL of the explicit and implicit groups.*

- RQ4:** What is the relationship between students' vocabulary size and their academic literacy?

**H3:** *There is a significant relationship between the mean scores of the VLT and the mean scores of the TALL.*

**RQ5:** In what way do the explicit and implicit vocabulary programmes have an affect on students' attitudes about vocabulary?

**RQ6:** How do the explicit vocabulary strategies affect students' word recall?

**RQ7:** What is the relationship between students' self-assessment of their vocabulary knowledge and their mean scores on the VLT?

## 1.6 The methodology of the research study

The study investigated the effectiveness of two vocabulary programmes. The first entailed explicit instruction of words contained in academic texts and direct instruction of vocabulary strategies (explicit group). The treatment in the second programme (implicit group) included incidental vocabulary learning through reading and talking about the text. Both programmes were implemented concurrently over a 10-week period. The procedures involved in the intervention are explained in more detail in Chapter 3 (§3.4.2.3).

The research was conducted with students attending the ULEG module at the Language Centre. The group comprised 86 students whose ages ranged from 19 to 49 years. A detailed description of the participants will be presented in Chapter 3.

Four research instruments were used to obtain data pertaining to the study: a receptive pre- and post-vocabulary levels test (the VLT), a pre- and post-test of academic literacy levels (TALL), short-term vocabulary achievement tests and a pre- and post-vocabulary questionnaire. These research instruments are briefly discussed below and will be reported on in more detail in Chapter 3.

1. **The vocabulary levels tests:** This receptive test was devised by Schmitt, Schmitt and Clapham (2001). The reason for using this test as a pre- and post-test was to assess the vocabulary levels of the participants before and after the intervention programme. The test contains a sample of 36 words for each of the five frequency levels: 2000, 3000, 5000, 10 000 and academic word levels, yielding a total score of 180.

2. **The test of academic literacy levels (TALL):** The TALL (Weideman 2006), designed by the International Centre for Language Development and Assessment (ICELDA), measures the academic literacy of students at tertiary level in order to determine the level of risk a student poses in terms of academic literacy. The test consists of items distributed over seven subtests.
3. **Short-term vocabulary achievement tests:** Four short-term vocabulary achievement tests were designed specifically for the study to assess whether explicit strategy instruction helped students remember target words.
4. **The vocabulary questionnaire:** The pre- and post-vocabulary questionnaires were developed by the researcher and administered at the start and at the end of the intervention programme. The aim of the pre-questionnaire was to establish participants' responses to questions about the importance of vocabulary, their attitudes to vocabulary, and their vocabulary 'storage systems' (the systems they used to record new words in a systematic way) and vocabulary learning strategies they used. The questionnaire contains biographical questions, yes/no questions, multiple-choice questions, open-ended and scaled questions. A post-questionnaire for each group (explicit and implicit) was also developed by the researcher and administered at the end of the intervention to establish whether the vocabulary teaching programme affected their responses to questions about the importance of vocabulary, their attitudes about vocabulary, and the vocabulary storage systems and vocabulary learning strategies they used at post test time. The post-questionnaire also sought to find out whether the vocabulary interventions were helpful.

## 1.7 Conclusion

The aim of this chapter was to identify the focus of the study. To this end, the background and context of the research study were given, the theoretical framework was briefly presented, and the research problem, research questions and hypotheses were presented.

The dissertation is organised into six chapters.

Chapter 2 discusses the literature reviewed for this study and explains vocabulary size and depth, types of vocabulary and incidental and explicit vocabulary acquisition. In addition, it looks at previous research on vocabulary acquisition.

Chapter 3 is concerned with the research methodology of the study. It outlines the approach, design and method of the study. It also describes the participants, the instruments used and procedures involved in the study. Lastly, the chapter discusses the data collection procedures and the analysis of the data.

Chapter 4 presents the findings of the study. The descriptive statistics of each research question are presented, followed by the testing of each hypothesis. A discussion of the results concludes the chapter.

Chapter 5 reports on the vocabulary teaching intervention and briefly discusses the participants' responses to the intervention and the instructional lessons learnt. The motivational and methodological factors are also explained.

Lastly, Chapter 6 presents a summary of the main findings and outlines the limitations and contributions of the study. It discusses the implications for vocabulary teaching and learning in Namibia and gives suggestions for further research.

# **Chapter 2**

## **2.0 Introduction**

In this chapter the literature pertaining to the current study will be reviewed and discussed. The discussion has been divided into sections which relate to different aspects of this study. Firstly, vocabulary size and depth, and types of vocabulary will be discussed. Thereafter, vocabulary acquisition and the role of vocabulary in language learning and teaching, specifically its role in academic literacy, will be reviewed. Furthermore, relevant studies involving vocabulary interventions will be described and theoretical, pedagogical and methodological approaches from the literature review will be highlighted, followed by a discussion of vocabulary assessment. The chapter will conclude with a summary of the main topics discussed.

## **2.1 Vocabulary**

Vocabulary refers to either all the words included in a language or to a language user's knowledge of words, i.e. a person's lexicon. The importance of vocabulary knowledge was described in Chapter 1 and pertinent aspects were introduced. This section provides a more detailed discussion of these aspects.

We use words for a variety of reasons. We use words to construct language so as to participate in the discourse groups we come across. That is, we use words to communicate with family and friends in informal contexts, as well as with teachers, lecturers and diverse personalities in formal contexts. It can be assumed that for successful communication to take place in writing, reading, listening or speaking, adequate vocabulary knowledge is axiomatic. However, this raises the obvious question of what counts as "adequate". This issue will be explored further in the course of this chapter, specifically with regard to the formal learning context.

As mentioned previously (§1.3.1), a word refers to a single lexical item and a word family refers to the word and all its derivatives and inflections. In other words, a word family refers to all the words that belong to the same 'family'. It contains a headword as well as derivatives of the word. For example, the headword '*protect*', taken from the General Service List, has the following members in the 'family': *protects*, *protected*, *protecting*, *protection*, *protective* and *protectant(s)*. The concept of word family assumes that when we know at least one of the members in the word family when reading and listening, we could understand the other family members. In addition to words, language includes lexical phrases,

i.e. multi-word units, such as idioms, e.g. *add insult to injury*, *beat around the bush*, and set phrases, e.g. *decisive action*, *innocent bystander*, *all in all*. The study focused on single lexical items only, more specifically passive word knowledge of single items. Words can be known either passively or actively.

Passive, also sometimes referred to as receptive, vocabulary knowledge means having knowledge of a word such that you are able to recognise it in reading and listening. In other words, you understand the basic meaning of the word when you read it and when you hear it. This does not however necessarily mean that you can also use this word in writing or speaking. When we can use a word in producing writing or speech, we are said to have active (productive) knowledge of the word. The latter can be seen as a continuum of progressing from controlled productive knowledge of words to free production of words. Meara (1996) has criticised the continuum model, arguing that the transition from passive to active word knowledge should rather be seen as a threshold effect, i.e. that words pass through discrete stages, and not as a continuum. Moreover, the different experiences we have with language, for example, having more exposure to a certain type of vocabulary (§1.3.2), results in having a range of depth knowledge. In other words, we do not know all the words to the same degree, some words will be known passively, others passively and actively, and the active knowledge of some words will be better than others due to our past encounters with language. Moreover, we also know more words receptively than we do productively in both our L1 and AL. Consequently, both types of vocabulary knowledge (passive and active) are important for reading, writing, listening and speaking.

The bilateral concept of receptive/productive vocabulary knowledge is closely related to vocabulary assessment, which can focus on size and/or depth of vocabulary knowledge. Vocabulary size refers to the number of words one knows passively and actively. In other words, the number of words that we recognize or understand (know the meaning of) in written texts, when we listen to discourse, when we speak or when we write. Consequently, vocabulary size is assessed by means of receptive and productive tests. Vocabulary depth, on the other hand, refers to how well one knows a word and whether one can use the word correctly in speaking and writing appropriate to the context in which one finds oneself.

One of the earliest frameworks for word meaning was Dale's (1965, cited in Dougherty Stahl & Bravo 2010) four stages of word knowledge:

Stage 1: Never having seen the term before

Stage 2: Knowing there is such a word, but not knowing what it means

Stage 3: Having context-bound and vague knowledge of the word's meaning

Stage 4: Knowing the word well and remembering it.

The last stage includes having the ability to identify the other words in the word family and whether the word is known specifically or only generally known (Dougherty Stahl & Bravo 2010). Similarly, Beck, McKeowan and Omanson (1987, in Beck, McKeowan & Kucan 2013, 10-11) argue that a person's word knowledge falls along a continuum:

Stage 1: No knowledge

Stage 2: General sense (of the word)

Stage 3: Narrow context-bound knowledge

Stage 4: Has knowledge of a word but not able to recall it readily enough to use in appropriate situation

Stage 5: Rich contextualized knowledge of a word's meaning, its relationship to other words, and its extension to metaphorical uses.

The first three stages in both of the two frameworks mentioned above refer to the same types of word knowledge. In other words, to have no knowledge of the word's meaning, or to have a basic sense of what the word means or to recognize the word's meaning based on the context in which it appears. The second framework has an additional stage (Stage 4) which refers to knowing what the word means but not to such an extent as to be able to use it appropriately (Beck, McKeowan & Lucan 2013). The last stage in both frameworks refer to knowing the word well, i.e. knowing the 'sub knowledges' of the word (cf. §1.3.1).

Nation (2001) discusses word knowledge in terms of passive and active vocabulary knowledge but refers to the same types of word knowledge that previous frameworks posit. In other words, word knowledge is quite complex, as it entails knowing the spelling of the word, knowing which other words usually go with the word, knowing the word's meaning, knowing the context in which it is appropriately used, as well as knowing the word's connotation. Consequently, vocabulary knowledge is incremental and there is a range of depth of word knowledge, i.e. we progress through stages of word knowledge before we know a word in all its facets and can use it appropriately.

The objective of any vocabulary teaching and learning programme should be to increase both passive and active vocabulary knowledge. Vocabulary teaching and learning should rightfully receive the attention it deserves in English classrooms and syllabi if language competence is the goal.

This study focused primarily on passive vocabulary knowledge and looked at ways of increasing students' vocabulary size. The vocabulary intervention included reading and pre- and posttest assessment of receptive (passive) word knowledge. Passive vocabulary knowledge is particularly important for reading comprehension and therefore essential for students who are required to read textbooks, academic texts (journal articles, study guides), lecture notes, and assignment, test and examination instructions. In Stæhr's (2008) study, 88 English as a foreign language (EFL) students aged between 15 and 16 and who had been taught English for seven years, were assessed to investigate the relationship between reading, listening, writing skills and vocabulary size. The reading test was made up of multiple-choice and multiple-matching questions; and the vocabulary test used was the receptive vocabulary levels test designed by Schmitt, Schmitt and Clapham (2001). Relevant to my study are the findings regarding the correlation between reading and vocabulary size. The study found a high correlation (0.83) between reading comprehension and vocabulary size. Stæhr's finding supports previous research showing strong correlations between vocabulary size tests and reading comprehension tests (e.g. Laufer 1992; Qian 2002). Suffice to say, there is a high degree of association between vocabulary size and reading comprehension. But just how much vocabulary knowledge is required to understand most written texts? Answers to this question come from two main sources.

Firstly, research on text coverage, i.e. the percentage of words that one should know in order to understand the text, contributes to estimating how much vocabulary knowledge is needed to achieve reading comprehension (Nation 2006). A study by Hu and Nation (2000) investigated the relationship between reading comprehension and text coverage. They sought to find out what percentage coverage of a fiction text was needed for unassisted reading comprehension, i.e. without using the dictionary to look up meanings of words, for 63 adults enrolled in a pre-university English course. Some of the low frequency words in the fiction text were replaced with nonsense word, i.e. words that do not exist such as 'emseleards, yeard, latments, swanding, crang' and 'rajera' (Hu & Nation 2000). Findings indicated that a text coverage of 80%, i.e. when 20 of every 100 words were nonsense words, resulted in inadequate comprehension of the reading text (Hu & Nation 2000). Furthermore, the study found that with a text coverage of 90%, i.e. when ten of every 100 words were nonsense words, adequate

comprehension was achieved, albeit by very few of the adults. A few more of the adults achieved adequate comprehension with a text coverage of 98%, one nonsense word in every 50, resulting in the study concluding that students need 98% text coverage in order to achieve unassisted reading comprehension (Hu & Nation 2000). These findings reaffirm the results from previous studies (Carver 1994; Kurnia 2003) regarding the percentage coverage needed for reading comprehension namely, that a text coverage of about 98% is required for reading comprehension to be achieved.

Secondly, due to computer-aided software and the development of corpus linguistics, i.e. research on large electronic collections of texts, empirical evidence exists which shows the approximate number of word families needed to understand certain texts. Nation's (2006) study investigated how many word families (all the lexical items, including derivatives and inflections that belong to the words) are needed for a 98% text coverage of written texts. His study involved the use of word family lists which were developed utilizing data from the British National Corpus (BNC) to determine how much vocabulary is required to understand a novel, a newspaper, a movie and a conversation. Findings indicate that vocabulary knowledge of between 8000 and 9000 word families is required for a 98% text coverage of written texts, such as novels and newspapers. In other words, one needs knowledge of about 8000-9000 word families to achieve unassisted reading comprehension, i.e. without using a dictionary or any other means to determine word meaning.

This study set out to determine the vocabulary size of undergraduate students and whether explicit and implicit vocabulary interventions would affect their vocabulary size.

## **2.2 Types of vocabulary**

One measure determining the usefulness of a word is frequency, i.e. how often the word occurs in normal language use (Schmitt & McCarthy 1997). As mentioned in the previous chapter (cf. §1.3.2), five types of vocabulary, namely high frequency, mid frequency, low frequency, academic and technical, have been identified. These five types are classified according to frequency of occurrence or specialized use. ‘Frequency’ refers to the number of times a word appears in spoken language or texts and ‘specialized’ vocabulary, such as academic and technical, refers to those words that are prevalent in distinct contexts or knowledge domains. Academic vocabulary is common in educational contexts across different disciplines and technical vocabulary is characteristic of specific disciplines.

The first type of vocabulary classified according to frequency of occurrence is **high frequency words**. These words make up a large proportion of the running words in spoken and written language. Michael West's (in Nation 2001) 1953 General Service List (GSL) is commonly known as the 'classic' list of high frequency words. It was developed from a corpus (a large and structured set of texts) of 5 million words in written texts with the needs of ESL/EFL learners in mind and contains 2000 word families in English (Coxhead 2000). This list is useful in the sense that attention paid to words in this list would be worthwhile as result of their frequent occurrence in language.

In addition to the GSL there is another large corpus that provides data on word frequency, namely the Kucera-Francis count (1967), also known as the Brown Corpus, and is widely acknowledged for its usefulness. It is a diverse corpus of over 1,000,000 running words made up of 500 texts of around 2000 running words long (Schmitt and McCarthy 1997). It is the first spoken frequency database based on 1,6 million words in American English and can be used as a guide when teachers select words to teach in order to improve students' knowledge of high frequency words. These words are grouped into frequency levels namely, the 2000 and 3000 word levels. Each level represents the most frequently occurring of the words, i.e. the 1000 word level refers to the first 1000 most frequently occurring words, the 2000 word level refers to the next 1000 high frequency words in the list, and so on. All in all there are four frequency levels namely, the 2000, 3000, 5000 and 10 000 word levels, as well as the academic word level. The term 'high frequency vocabulary' refers more specifically to the 2000 and 3000 word levels.

The second type of vocabulary is **mid frequency vocabulary**. This group of words constitutes the 4000 - 9000 word levels (Nation & Anthony 2013). These words make up approximately 6000 word families and typically occur in written texts. They are also generally known to some degree by L1 speakers of English (Nation & Anthony 2013). If these occur primarily in written texts and ESL students study through the medium of English, then ESL students will also need to know these words. Mid frequency vocabulary consist of a wide range of general purpose words, e.g. *bachelor*, *barbarian*, *ballistic* and *backlog* (Nation & Anthony 2013). Knowledge of the high frequency and mid frequency vocabulary would account for a 98% text coverage resulting in unassisted reading comprehension.

**Low frequency** vocabulary is the third type of vocabulary. These words owe their classification to the fact that they do not occur frequently in spoken language and are limited to certain contexts in written language. Furthermore, some technical words can also be classified as low frequency words if they are not regularly encountered by someone who is not in that discipline, e.g. *oriole*, *cryptic* and *signet*. In

addition, some low frequency words are classified as such because they are words that language users rarely use, for example *eponymous* and *bifurcate* (Nation 2001). Nation and Anthony (2013, 9) used the British National Corpus (BNC) and Corpus of Contemporary American English (COCA) lists and argue that this type of vocabulary is very large and goes up to the ‘25<sup>th</sup> 1000 word level family’. Despite not occurring in texts frequently, low frequency vocabulary comprises about 100 000 word families (Nation in press, in Nation & Anthony 2013).

The fourth type of vocabulary is **academic vocabulary** which refers to a specialised type of vocabulary used in formal education (academic contexts) and can be found in the Academic Word List (AWL) compiled by Coxhead (1998). This list contains 570 word families from across different academic disciplines and is ‘based on a 3,500,000 token corpus of academic English which is divided into four groupings—Arts, Science, Law and Commerce—with each grouping consisting of seven sub-groupings such as psychology, mathematics, history, etc.’ (Nation 2001). These words are important to know for L2 learners who do their academic studies through the medium of English. Coxhead (2000) argues that academic vocabulary accounts for 10% of the total tokens (individual words) in the academic corpus she used. In her study, Coxhead (2000, 219) used

158 articles from academic journals, 51 edited academic journal articles from the World Wide Web, 43 completed university textbooks or course books, 42 texts from the Learned and Scientific section of the Wellington Corpus of Written English, 41 texts from the Learned and Scientific section of the Brown Corpus, 33 chapters from university textbooks, 31 texts from the Learned and Scientific section of the Lancaster-Oslo/Bergen Corpus, 13 books from the Academic Texts section of the MicroConcord academics corpus, and 2 university psychology manuals.

Using this comprehensive corpus, Coxhead concludes that a huge amount (94%) of the vocabulary in the list occurs in 20 or more of the subject areas of this extensive corpus. Consequently the AWL is very relevant to the academic context, and knowledge of academic vocabulary is important for students at university.

The fifth type of vocabulary is classified as **technical vocabulary** and can also be described as specialised vocabulary. According to Nation (2001), technical words contain a variety of types derived from words that do not usually occur in other subject areas. In other words, these are words that are commonly used and encountered in a specific discipline, for example *biopsy*, *malignant* and *anaemia*, which are commonly used in medical professions. These words are often explained in textbooks and are

not always problematic for students. The verb *demand*, for example, generally implies asking for something ‘strongly’. In the economics discipline the noun takes on a more specialized meaning and refers to the desire of customers for goods and services they wish to buy or use. We can therefore assume that the more students are exposed to technical words in their field of study through reading prescribed texts, listening to lectures and writing assignments, the better their chances are of knowing these words receptively and productively.

Assessing students’ knowledge of the different types of vocabulary plays a prominent role in the current research study. The participants in the study were undergraduate students. Despite being at university these students lack the necessary language skills to enable them to cope independently with the demands of the various academic curricula, hence the requirement for them to enroll for the English for General Communication module at the Language Centre. The receptive vocabulary levels test (Schmitt, Schmitt & Clapham 2001) was given to the participants in the study to establish their vocabulary size according to the different frequency levels, namely the 2000, 3000, 5000, 10 000 and academic word level (AWL). Differences in the mean scores of the pre- and post-tests were used to ascertain whether the vocabulary interventions affected participants’ vocabulary size and at which frequency levels.

### **2.3 Vocabulary acquisition**

From the above discussion, it can be noted that vocabulary size and depth, as well as types of vocabulary are complex issues which are significant in language teaching and learning. In this section I discuss more closely the complex nature of vocabulary development, focusing on explicit and incidental vocabulary acquisition.

We generally start learning words by being exposed to them through listening and later reading. We start using words in speaking and then, on becoming literate, in writing. The type of words we learn also greatly depends on the context in which they are used. For example, we need more vocabulary to comprehend written texts than we do for spoken discourse, so acquiring a large range of words requires exposure to written language. In addition, words are acquired incrementally. That is, we go through different stages when acquiring vocabulary knowledge. Due to the complex nature of vocabulary knowledge, AL students for whom English is the language of learning and teaching encounter many challenges. By the time many Namibian students leave school and enter university they do not have adequate vocabulary knowledge to cope with the language demands at university.

Vocabulary can be acquired incidentally or explicitly. Incidental (implicit) learning of words refers to learning words without explicitly focusing on them, by virtue of exposure to spoken or written language for other purposes, for example learning a new word when watching a television programme. That is, there is no specific focus on learning new words. It is assumed that learning will happen naturally through exposure. Explicit vocabulary acquisition, on the other hand, refers to a specific focus on learning new words through deliberate activities intended to facilitate this process. That is, the goal is to acquire vocabulary knowledge, which can be acquired incidentally or explicitly or by a combination of the two.

Ellis (1997, 2) argues that there are several aspects of vocabulary acquisition which entail different learning processes. He argues that

aspects of vocabulary acquisition are subserved by two separable types of learning mechanism: (i) the acquisition of the word's form, its Input/Output (I/O) lexical specifications, its collocations, and its grammatical class information all result from predominantly unconscious or implicit processes of analysis of sequence information; (ii) the acquisition of a word's semantic and conceptual properties, and the mapping of word form labels onto meaning representatives, results from conscious (explicit) learning processes.

In other words, Ellis claims that knowledge of a word's form, its collocations, i.e. words that usually occur with the word, and its word class are acquired as a result of incidental learning processes, whereas acquisition of the word's semantic (the range of meanings of the word) and conceptual (L1 translation) properties involve explicit learning processes. Ellis (1997, 10) argues that 'language learning involves learning sequences of words (frequent collocations, phrases, and idioms) as well as sequences within words'. In other words, 'chunks' or lexical phrases are easily 'picked up' by our memory system. Reading can assist in this type of learning process (incidental) as frequent exposures to lexical phrases and single lexical items result in implicit learning of words. For Ellis (1997) explicit learning processes refer to the acquisition of the meaning of a word. That is, once the form of a word has been implicitly acquired, the semantic and conceptual properties of the word can be learnt. For example, if the word *commit* is incidentally acquired one would know the spelling of the word when encountered through reading, which word class (verb) it belongs to due to frequent exposure of the word and its position in a sentence. One would also know that the word usually occurs with *crime, murder, law/act or man* (collocation) or some misdemeanor, such as *larceny, arson* or *adultery*. The word carries a negative

connotation, that is, the word is perceived with negative associations as a result of its frequent occurrence with collocations, such as *crime/murder/robbery*, etc. According to Ellis (1997), word meanings, unlike the form of the word, are not learnt only through exposure to words during reading. It has been argued that reading alone does not guarantee a high vocabulary and does not guarantee that meaning is guessed from the context (Jensen 1980, 146-147, cited in Ellis 1997, 14; Sternberg 1985, 307, cited in Ellis 1997, 14). In other words, exposure to words through reading aids vocabulary acquisition but only in so much as learning the word's form, word class, collocations and associations or connotations of the words. Explicit learning, on the other hand, involves knowing the range of meanings of the word and its conceptual properties, i.e. the logical, dictionary meaning of the word. A combination of these learning processes could result in full mastery of the word.

Waring and Nation (2004) argue that there are two stages of vocabulary acquisition along the continuum of vocabulary knowledge. They assert that the first stage involves the form-meaning relationship, that is matching the word's spelling with its meaning. The second stage of vocabulary acquisition involves additional knowledge of the word, i.e. the word's inflections and derivatives, its different meanings, collocations, register (formal or informal use), and whether it is prevalent in speech or written texts (Waring & Nation 2004). According to their arguments, vocabulary acquisition initially involves establishing a relationship between the word's form and meaning. Thereafter additional knowledge of the word is learned, and so vocabulary knowledge deepens.

Schmitt (2007) argues that vocabulary learning is an incremental process. That is, various types of word knowledge are acquired at different rates. He emphasizes that words can be known either passively or actively. Vocabulary acquisition is therefore a complicated but gradual process (Schmitt 2007, 749). As a result of the different types of vocabulary knowledge, vocabulary can be gradually acquired both incidentally and explicitly. In other words, vocabulary acquisition is two-fold: first one establishes the form-meaning relationship followed by learning of the additional 'knowledges' of the word.

The literature reviewed shows that the first step in the vocabulary acquisition process is recognizing new words. Once students start recognizing the form, they can start paying attention to the meaning. Thereafter an initial form-meaning link is established. This is what Ellis refers to as the acquisition of the word's form, its Input/Output, while Schmitt refers to this phase in the process as how the word sounds and what it looks like (Nation 2001). According to Schmitt (2008), 'a common assumption seems to be that learning the meaning is of key importance, while the form element is either downplayed

or disregarded'. As a result of what we know about the vocabulary acquisition process, especially regarding the first step in learning words, we cannot afford to neglect the relevance of the word's form in dealing with vocabulary in the classroom. Second language learners however, often have trouble with the word form, i.e. the orthography (Laufer 1988). Laufer found that some similarities in form between words caused confusion for students, especially words that differed only in terms of a single consonant (*stimulate/simulate*) or vowel (*adopt/adapt*). This finding was also evident in research carried out by Bensoussan and Laufer (1984), who found that misanalysis of word forms often leads to misinterpretation. This often happens with spoken or written forms. Consequently, attention should also be paid to word form as it is not a given that knowing the meaning of a word guarantees correct spelling of the word.

The importance of word form in vocabulary acquisition is very significant. Bogaards (2001), for example, found that knowledge of word form aided subsequent vocabulary learning. In addition, Ellis (1997) argues that learning word forms is mainly attributable to exposure to the word form. Despite the fact that there is no definite threshold, the reviewed literature shows that it takes at least six exposures to a word for recognition of the word's form to be established (Rott 1999). Waring and Takaki (2003), on the other hand, found that at least eight exposures were necessary for learners to have half a chance of recognizing a word's form or meaning. A study by Pigada and Schmitt (2006) investigated the benefits of extensive reading for a 27 year old learner of French. One of the research questions in their study explored how the number of exposures to words affected vocabulary acquisition. Their study found that more than ten exposures were necessary to learn the word's form and that twenty or more exposures did not guarantee that the meaning of the word was learnt. Consequently, they argued that it takes about 8 - 10 exposures of a word for its form to be acquired, but more exposures seem to be necessary for acquiring the meaning of words.

After the first stage of vocabulary acquisition, that is the form and meaning of the word is learnt, learning the range of meanings follows, which supports the notion that vocabulary acquisition is incremental. In other words, learning the other elements or 'knowledges' of the word in addition to its form (orthography) and meaning. Nation (2001) refers to explicitly knowing the concepts, referents and associations of the word. In addition, he argues that explicit articulation of knowledge involves knowing the constraints of the word's use, i.e. to know where, when and how often people use the word. For example, the word *Negro* is considered offensive by many people and one should know that there are

constraints to using the word. Knowing the register of the word, i.e. whether it is used in formal or informal discourse, is also important. For example, the language used during a lecture will be different to the language used in an informal conversation between friends. If we know something well enough we can articulate our knowledge explicitly, as opposed to knowing something vaguely in the initial phases.

### **2.3.1 Incidental vocabulary learning**

As already indicated, there are two main types of vocabulary learning processes one can employ in formal education, namely incidental and explicit vocabulary learning. The first type, incidental vocabulary learning, can be employed to learn words in the classroom. According to Sánchez and Manchón (2007), incidental learning of vocabulary involves engaging students in language activities pertaining to reading and speaking where exposure to language occurs, with the potential for word learning. In other words, opportunities for language exposure results in incidental learning of words.

Even though incidental vocabulary learning involves learning words without particular focus on word acquisition through listening or reading, the focus in the study was essentially on learning words through reading. As a result, the discussion focuses on learning words incidentally through written exposure.

One way to provide opportunities for language exposure is through extensive reading. The latter is based on the principle that ‘we learn to read by reading and this allows students to read, read and read some more’ (Day 2003, 1). We learn words through exposure to words. Despite earlier research on vocabulary acquisition from incidental exposure during extensive reading, which shows a low pick-up rate or discouraging rate of learning (e.g. Raptis 1997; Horst, Cobb & Meara 1998), recent studies have shown encouraging results. Horst (2005) found that more than half of unfamiliar words were learned through extensive reading. In addition, Pigada and Schmitt (2006, 18) examined whether the spelling, meaning and grammatical aspects of the target words were affected by extensive reading and found that ‘two-thirds of the target words tested were enhanced in at least one of their word knowledge aspects’. They found the strongest improvement in spelling, especially in nouns, followed by an improvement in the understanding of the meaning of the words, with the lowest improvement in the grammatical mastery of verbs. Extensive reading can thus improve spelling but gaining meaning and grammatical knowledge occurs to a lesser degree.

Additional studies (e.g. Brown, Waring & Donkaewbua 2008; Waring & Takaki 2003) found that incidental vocabulary learning from reading resulted in vocabulary gains and higher retention of word recognition. In Brown, Waring and Donkaewbua's study (2008), the rate of vocabulary acquisition was examined. Three experimental groups received different treatments for seven weeks, namely reading, reading-while-listening, and listening. Results from the study showed that words were learnt incidentally in all the groups, even though the majority of words were not acquired (Brown, Waring & Donkaewbua 2008). Waring and Takaki's study (2003) investigated the rate of vocabulary acquisition of fifteen Japanese female university students aged between 19 and 21 in the course of reading a 400 headword graded reader. The latter is a reading book that is adapted to the level of the reader, i.e. the original language in the book is replaced by language appropriate to a particular level of language proficiency. The results of their study showed that, while incidental learning of words took place through reading, a lot of the new words were not learned (Waring & Takaki 2003). Furthermore, the results showed that the more frequently a word occurred in the text, the more likely the word would be acquired and the less likely it would be forgotten. The study also indicated that reading one book does not suffice as very few new words are acquired from one reading (Waring & Takaki 2003). Incidental vocabulary learning has a cumulative effect. If people read a lot and do so consistently throughout their lives, they acquire a very large vocabulary. One of the aims of extensive reading is to encourage the habit of reading, which in turn positively affects vocabulary knowledge in the long run.

In spite of the gains in acquisition of word forms, the literature also shows that incidental vocabulary learning from reading is more likely to 'push words to a partial rather than full level of mastery, and that any recall learning is more prone to forgetting than recognition learning' (Schmitt 2008, 347). Even so, this is preferable to not knowing the words at all. Incidental learning of vocabulary from extensive reading can result in the acquisition of passive vocabulary knowledge and can, depending on the number of exposures to words through reading, result in the acquisition of different depths of active vocabulary knowledge.

### **2.3.2 Explicit vocabulary learning**

Explicit vocabulary learning refers to the conscious teaching and learning of words. The first attempt at defining the notion that the more a student works with the word the more likely the word will be learnt was in Craik and Lockhart's (1972) Depth/Levels of Processing Hypothesis. It states that the level of processing of a word determines its storage into our long term memories (Hulstjin & Laufer 2001). In

other words, a word can be processed at a shallow or deep level. For example, knowing the word's phonology is considered shallow processing, and knowledge of the word's meaning is regarded as deep processing of the word (Hulstjin & Laufer 2001). This notion was further refined when Hulstjin and Laufer (2001) suggested that conscious involvement in vocabulary learning consists of three components: *need* (the requirement for a linguistic feature to achieve the desired task, e.g. when a student reads and comes across an unfamiliar word which is critical to understanding the content), *search* (to find the required information, such as looking up the meaning in a dictionary) and *evaluation* (to determine whether the word fits into the context). Similar studies reviewed by Hulstjin and Laufer (2001) have found that tasks with relatively more need, search and evaluation elements were more effective in vocabulary acquisition.

Another factor that should be taken into account is the student's motivation and attitude towards vocabulary acquisition. Students should be motivated to learn new words so that they can more readily engage in relevant learning tasks. According to Schmitt (2008), the following factors also facilitate vocabulary learning:

- a requirement to learn the lexical item (by teacher, test, syllabus);
- a need to learn/use the lexical item (for a task or for a personal goal);
- increased manipulation of the lexical item and its properties;
- increased amount of time spent engaging with the lexical item.

One could argue that any activity that leads to spending time with the word contributes to learning the word. Krashen and Mason (2004), for example, examined whether form-focused instruction was effective. They used two groups of students, i.e. the 'story-only' group and the 'story-plus-study' group. The former group listened to the story and was made aware of the target words, while the latter group listened to the story and did supplementary activities focusing on the form of the words (Krashen & Mason 2004). Results from their study showed that the story-plus-study group learned more words than the other group, but that the story-only group learned the words more efficiently (Krashen & Mason 2004), i.e. reading the story while paying attention to target words assists in learning the word to mastery level.

### **2.3.3 A combination of incidental and explicit vocabulary learning**

The effectiveness of incidental vocabulary learning is not disputed. This way of learning words, however, takes time and is dependent on the number of exposures and the manipulation of the word involved. Explicit vocabulary learning, on the other hand, focuses on the conscious learning of words. This type of learning, however, also takes time and it is not practical or realistic to explicitly teach and learn all the words required by university students, for example.

Texts become more complex as students progress from secondary to tertiary education. The latter requires a vocabulary large enough to enable the effective participation in activities pertaining to the academic context of tertiary education. Furthermore, Corson (1997, 676) argues that universities have been shaped by a culture of literacy that ‘became institutionalised in formal education, where high value was placed on the daily use of Latin for all spoken purposes and on the rigorous study of Greek’. As a result, the basis for a greatly enlarged English vocabulary from the 15<sup>th</sup> century onwards was drawn directly from these languages. In addition, Corson (1997) is of the opinion that Graeco-Latin words are usually acquired at school during formal instruction, i.e. through books or reading.

Bailey’s (2007) study documented the English demands of learners of English at school. According to Bailey (2007, 10-11), ‘academic English can be distinguished from English in other settings at the lexical, grammatical as well as at the discourse levels including organizational structures of the texts as well as a wide range of functions served in the language in school settings such as explaining, describing and comparing’. Bailey (2007) further suggests that academic vocabulary includes general academic words as well as content-related words (technical vocabulary). In a study investigating the vocabulary of secondary school textbooks, Lindberg and Kokkinas (2008, in Lindberg 2009) compiled a corpus of one million words. These words were taken from texts in eight subjects taught at school, namely mathematics, chemistry, biology, physics, history, religion, geography and social studies (Lindberg 2009). Word frequency analyses were conducted and the vocabulary of the corpus was representative of the written language to which secondary school students could be exposed. The study identified four categories of vocabulary: two categories covered words across school subjects, namely general high frequency and non-specialized vocabulary; and two covered content area categories, i.e. everyday vocabulary related to specific subjects and technical terms that are unique to a specific subject (Lindberg & Kokkinas 2008, cited in Lindberg 2009). Furthermore, Lindberg (2009) argues that ‘textbooks and other written sources play an increasingly important role for learning in higher grades and knowledge of

the vocabulary encountered in schoolbook texts is consequently of great relevance to school success'. In the same vein, students are expected to produce work which illustrates and entails efficient mastery of the language. Incidental vocabulary learning through reading does not guarantee this. Extensive reading most often typically involves reading fiction and not textbooks. Expository genres like textbooks might not be preferred by students for extensive reading purposes, due to the nature of the content and language, and the need to 'read to learn' from them. Students need more than knowledge of only high and mid frequency words, and should be exposed to a range of texts covering different topics as they need knowledge of academic as well as technical words. Some students in Namibia, however, do not even have this knowledge, even after eight years of English as LoLT at school.

Adequate vocabulary knowledge entails passive and active knowledge of words (§2.1). It does not suffice to only know vocabulary passively, as the active or productive knowledge of words is equally important if one wants to successfully use the language skills. Students should be encouraged to read to learn, and reading textbooks will help vocabulary acquisition. Words pertaining to specific topics could be explicitly learned by highlighting the target words in the text that the students have to read and then paying explicit attention to the words by discussing the form, meaning and additional features of the words. The exposure to the words through reading, coupled with explicit learning of the words, could result in adequate word knowledge. Lee's (2003) study investigated to what extent words known passively could become part of active vocabulary after explicit vocabulary instruction took place. The study involved 65 intermediate ESL learners at secondary school. They had to write an essay and complete a vocabulary test consisting of a fill-in-the-blanks test comprising 30 single words and six lexical phrases (Lee 2003). The learners were tested before reading a text on bull fighting. Their recognition vocabulary (words used correctly in the vocabulary test) was assessed to determine passive vocabulary knowledge and their productive vocabulary (words used accurately in a writing task about cruel sport) were assessed to determine their active vocabulary knowledge of the words. The intervention included explicit instruction of words. Findings show that '63,6% of recognized vocabulary (words known passively) became productive vocabulary (words known actively) in an immediate writing task' (Lee 2003, 542). In other words, explicit vocabulary instruction seems to assist in developing the partial knowledge of words to the extent that you can use them productively. Furthermore, findings show that 'new vocabulary gained from a reading activity does not automatically transfer into productive vocabulary' (Lee 2003, 551). Lee (2003) concludes that explicit vocabulary instruction aids the development of vocabulary knowledge from passive word knowledge (recognition

vocabulary) to active word knowledge (productive vocabulary). Moreover, Nation (2008) argues that vocabulary learned by means of incidental learning is not likely to be learned to a productive level. Consequently, reading does not necessarily result in gaining active vocabulary knowledge, but needs to be supplemented with explicit instruction of words which may result in learning vocabulary to such an extent that they can be used productively and not just recognized in reading and listening.

Laufer (2005) reviewed a number of studies involving explicit focus on vocabulary and concluded that ‘they compare extremely favorably with the magnitude of results typically derived from incidental learning’. She also reports on three of her own studies which show that ‘explicit vocabulary exercises led to about 70% of the words being known on immediate receptive posttests’ (2005, 244). Even though there was a reduction in the level of word knowledge of between 21–41% in the delayed posttests, this is still seen as a better result than that reported from incidental learning studies. Smith (2004) similarly found that target words which were used and focused on were retained very well in terms of receptive meaning knowledge, with a difference of 80-90% and 50-59% in one-week delayed tests. Furthermore, a study by Webb (2005) investigated what effect receptive and productive vocabulary learning has on vocabulary knowledge. The study involved Japanese students studying English as a foreign language at a university in Japan. Two experiments were conducted. The first experiment examined the difference between receptive and productive tasks on vocabulary learning and ten target words were used (six nouns and four verbs). Results showed that both reading three sentences (receptive) and writing (productive) sentences for twelve minutes are effective methods to learn word knowledge (Webb 2005). The study also shows that receptive learning tasks not only help to develop receptive knowledge of vocabulary but also increase productive vocabulary knowledge (Webb 2005).

The second experiment in Webb’s study involved 49 Japanese students from a university in Japan. Twenty unfamiliar words were selected, that is two sets (sets A and B) of 10 low frequency words comprising six nouns and four verbs (Webb 2005). Students were engaged in receptive and productive learning tasks to examine how these support vocabulary learning. The receptive task entailed learning words by means of reading (12 minutes) and the productive task required writing the words in sentences for more than twelve minutes, i.e. until the writing task was completed. Students were assessed on five aspects of vocabulary knowledge, namely, knowledge of orthography, syntax, association, grammatical functions and meaning by means of receptive and productive tests (Webb 2005). The results indicate that more vocabulary knowledge was gained from the productive learning task than the reading alone

(Webb 2005). Consequently, paying explicit attention to the word, for example using it in a sentence, appears to contribute more favourably to vocabulary learning than just reading.

Despite the positive results of explicit vocabulary learning, it is not common in the classroom. Meara, Lightbown and Halter (1997, 9) found that ‘teachers from both audiolingual (§2.4.5) and communicative (§2.4.6) approaches used only about 2.75 new words per 500 words of speech’. Furthermore, Tang and Nesi (2003) state that case studies in Asian contexts show that the percentage of words taught explicitly are very low (Hong Kong: 2.79%; China: 12.24%). Spoken classroom discourse does not provide adequate exposure to new words but new words can be learned if explicit vocabulary instruction is added.

We can conclude from the literature reviewed that it is important to establish the form-meaning link, especially at the beginning stages of word acquisition. This can be achieved by means of incidental learning from reading or listening, taking cognizance of the fact that it is crucial to provide numerous exposures of the words in order to support vocabulary learning. Depending on the context and purpose of using the AL, explicit instruction should be incorporated in order to fast track the learning of important words, as well as to teach students strategies that will help them infer word meanings from context or retain new words in memory. Explicit learning from word lists or explaining the meaning of the word does not automatically lead to deep learning. Vocabulary learning should therefore entail incidental and explicit learning components.

In the current study the effects of two vocabulary teaching programmes were investigated. The first involved incidental vocabulary instruction through reading and talking about the text. The second entailed explicit instruction in vocabulary and vocabulary learning strategies. The study examined the effects of each intervention on vocabulary development and academic literacy.

## **2.4 The role of vocabulary in language teaching**

The status of vocabulary learning in English AL classrooms has been largely influenced by the teaching approach employed which resulted in awarding either no, little, some or adequate attention to vocabulary learning. Teaching approaches refer to the various language teaching approaches that have been employed in English classrooms over the years.

The sections below (§§2.4.1 – 2.4.7) provide a brief historical summary of the different approaches and sketch the role vocabulary played in each.

### **2.4.1 The Grammar Translation Approach**

The first approach, namely the Grammar Translation Approach, was introduced at the end of the eighteenth century (Zimmerman 1997). In this approach the rules of the language were taught and students had to practise them (deductive learning) so as to apply these rules when they used language in spoken or written discourse. For example, students were taught the rules of the language, for instance, the types of sentences such as simple, compound and complex sentences, and were then given exercises to apply and practise the rules in a deductive manner. Moreover, it was very teacher-centred and paid very little attention to meaning, focusing instead on grammar, with words taught by means of word lists. Bilingual word lists, dictionary study, memorization and translation were used to learn words. These strategies are not actually ‘bad’ strategies to use for vocabulary learning, provided they are supported with explicit teaching of the strategies and how they can be used to learn words. It is generally recognized today that the Grammar Translation Approach is not effective as there is too much focus on the rules of the language which could frustrate the students.

### **2.4.2 The Direct Approach**

At the end of the nineteenth century, the Direct Approach was established and used in language schools like Berlitz and Inlingua in the 1970s. This approach focused primarily on oral skills. In this approach students were not taught grammar or other types of rules directly but they had to discover or induce the rules from their experience of using the language (inductive learning). Concrete vocabulary (terms referring to objects or events available to our senses) was taught through mime, demonstrations and pictures. Abstract vocabulary, on the other hand, was taught by association of ideas (Amiryousefi & Dastjerdi 2010). The word *confront*, for example, would be taught by directly associating its meaning to the action by using gestures or a picture depicting a confrontation. During lessons, the focus was on simple, known words, like objects in the class, clothing and body parts. Everyday vocabulary used in social contexts was taught (Amiryousefi & Dastjerdi 2010), which limited learning of language in formal education.

### **2.4.3 The Reading Approach**

In the 1920s and 1930s the Reading Approach was developed by West (1930, in Coady & Huckin 1997). This method of teaching English as an AL aimed to develop intensive reading skills, i.e. deliberate study of short texts to understand them, and extensive reading skills, i.e. reading widely and focusing on the gist. Consequently, a lot of attention was paid to vocabulary, grammar and the discourse of the text. During this period, frequency counts were used to develop basic word lists and eventually a General Service List of English words was published in 1953 (Zimmerman 1997). Students were encouraged to infer the meanings of words from context or from their cognates (words in one language that are similar in form and meaning to words in another language because both languages are related) through reading extensively. This approach was initially created for English learners who did not have the time to master the oral use of the language and was applicable for beginning readers as they made use of graded readers which started with the most basic level, that is, the readers were made up of about 300–500 vocabulary items (Molina, Cañado & Agulló 2013).

### **2.4.4 Situational Language Teaching**

While the Reading Method was developed in the United States, Great Britain saw the development of Situational Language Teaching, also known as the Oral Approach, in the 1930s to 1960s. This approach focused primarily on speech, structure and emphasis on the mastery of high frequency words (situational language teaching). According to Zimmerman (1997), it was the first time that vocabulary was perceived as one of the most important aspects of second language (L2) learning. The objectives of this approach included accurate use of vocabulary items and grammar rules in order to achieve practical mastery of the four language skills, namely reading, listening, writing and speaking.

### **2.4.5 The Audiolingual Approach**

The Audiolingual Approach, prominent in the late 1930s and 1940s, concentrated largely on listening and speaking skills. The underlying assumption of this approach was that language is a set of verbal habits. The objective was the correct use of the memorized language without necessarily knowing the full meaning of the language used. Proponents of this approach believed that exposure to the language would lead to vocabulary learning (Rivers 1981; Schmitt 2002; Larsen-Freeman 2003; Richards & Rodgers 2003, in Amiryousefi & Dastjerdi 2010). This belief is widely accepted as it is difficult to imagine how learning will take place without exposure to words. ‘With grammar or structure as its

starting point and the belief that language learning is a process of habit formation, the audiolingual method paid attention to pronunciation and intensive oral drilling of basic sentence pattern' (Zimmerman 1997, 10). In addition, words were chosen according to simplicity and familiarity, and new words were introduced through drills (Zimmerman 1997, 10).

## **2.4.6 Communicative Language Teaching**

In the 1950s and 1960s a revolutionary change occurred in linguistic theory. New principles in language teaching came about from two fields, namely psychology and linguistics. Chomsky was a significant figure in the domain of Linguistics who developed Generative-Transformational Linguistics and Universal Grammar (Molina, Cañado & Agulló 2013). According to Chomsky language learning is a product of rule learning and hypothesis testing (Molina, Cañado & Agulló 2013). Moreover, the psychological framework posited that all people have an innate Language Acquisition Device. In other words, all people are born with a tendency (ability) to learn the rules of language.

Further advancement led to the development of the notion of communicative competence. Richards (2006) argues that communicative competence is viewed as 'mastery of functions needed for communication across a wide range of situations' (Richards 2006, 11). This gave rise to the communicative approach to language teaching in the 1980s. As a result, vocabulary and grammar were selected depending on the function to be taught. For example, if the function is making a reservation at a hotel, the grammar and vocabulary pertaining to such a context would be selected. This ultimately led to the field of needs analysis, that is, using 'observation, surveys, interviews, situation analysis and analysis of language samples collected in different situations' (Richards 2006, 12), in order to determine which language features and kinds of communication would need to be mastered in a particular contextual role: educational or occupational. Consequently, English for Specific Purposes (ESP) courses started to appear.

In this approach vocabulary featured only as far as the functional situation required. The principle of the Communicative Approach is that learners are taught the vocabulary required for the contexts in which they use language. The words used in a specific context, for example in speech acts like requests, apologies and invitations were focused on.

The following summarises current practices in communicative language teaching (Richards 2006, 23):

- Students should be engaged in interaction and meaningful communication;

- Classroom tasks and activities should give students opportunities to negotiate meaning and notice how language is used and participate in meaningful interaction;
- Content should be relevant, purposeful, engaging and interesting for meaningful communication to occur;
- Language activities should entail inductive learning of rules;
- Errors should not be seen as mistakes but as a product of learning; and
- The classroom should be a community in which the teacher is the facilitator who provides opportunities for language to be practised.

This approach is still dominant in the Namibian education system.

#### **2.4.7 The Lexical Approach**

At the same time that the communicative approach was popularized, the lexical approach gained status in language teaching. Computer-aided research provided opportunities to analyse lexical items in different corpora, i.e. collections of naturally occurring samples of language which were collected and collated for easy access were analysed using computer software. ‘Evidence from large corpora (language databases) shows that there is more lexical patterning than ever imagined, and that much of what was previously considered grammar is actually constrained by lexical choices’ (Schmitt 2002, 3). Consequently, the introduction of the lexical approach to language teaching appeared.

The lexical approach focuses on the nature of the lexicon. It concentrates on developing students’ proficiency with the lexis or words and word combinations. This approach is based on the idea that an important part of language acquisition is the ability to comprehend and produce lexical phrases as unanalyzed wholes or ‘chunks’ (Amiryousefi & Dastjerdi 2010). These lexical chunks refer to a group of words commonly found together and also known as collocations. Moreover, collocations may comprise two words (*terrible accident*; *problem child*; *passion killing*) or extended combinations, for example, ‘She is *recovering from a major operation*’ (Timmis & Islam 2003). Instruction therefore focuses on fixed expressions that occur frequently in spoken and written language, and involves exercises that identify collocations in specific texts, and may include lexical phrase drills. Michael Lewis (1993), who coined the term ‘lexical approach’, suggests that lexis or words are the basis of language and lexis is misunderstood in language teaching because of the dominant assumption that grammar is the basis of language. He also states that one of the central organizing principles of any meaning-centred syllabus should be lexis (Lewis 1993, 95).

As can be seen from this brief overview, the role of vocabulary in language teaching and learning has largely depended on the teaching approach popular at a given time. Vocabulary instruction surprisingly received little to no attention but as a result of more recent approaches such as the lexical approach, has made its way to the foreground.

At present, the communicative language teaching approach is widely used in most schools in Namibia, but vocabulary development appears to be neglected. The lexical approach is an approach not well known in educational contexts in the country. The current study investigated the effects of supplementing a university English module with two different vocabulary teaching programmes in order to determine whether vocabulary development and academic literacy levels were affected.

## 2.5 Vocabulary teaching methods

As mentioned in the previous section, vocabulary teaching and learning has unfortunately been a neglected area in English as a second language (ESL) instruction and has only recently received more explicit attention. Although the communicative language teaching approach (§2.4.6) is prevalent in Namibian schools, it can be assumed that vocabulary does not receive the attention it deserves. In the Namibian context, we still have a way to go in placing emphasis on the role of vocabulary instruction in English classrooms. This might help to improve the poor English results in both the Grade 10 and 12 Namibian national examinations.

This section focuses on the classroom/teaching application of the two ways of learning (§2.3), viz. incidental and explicit learning. Sections 2.5.1 – 2.5.4 provide a description of the different methods or ways vocabulary can be taught in the English classroom, namely by means of incidental vocabulary development, explicit vocabulary development, a combination of incidental and explicit development and increased metacognitive awareness. These will each be discussed, and examples and current perspectives will be provided where relevant.

### 2.5.1 Incidental development of vocabulary

*Incidental development of vocabulary*, also referred to as the extensive reading approach, proposes that there is no need or justification for direct instruction and is based on the claim that vocabulary will be learned from context by reading extensively, as long as there is successful comprehension (Krashen 1989). He also claimed that words can be acquired naturally (i.e. through incidental learning) without

being explicitly taught and that this can be achieved by learners reading huge quantities of material in their own areas of interest as well as large quantities of light, low-risk material.

Hafiz and Tudor's (1989) study investigating the effects of a three-month extensive reading programme shows support for Krashen's Input Hypothesis. The study involved an extensive reading programme which was conducted for three months with three groups of ESL learners (aged between 10 and 11) in the United Kingdom, namely one experimental group and two control groups. It represents a controlled attempt to study Krashen's hypothesis concerning the effectiveness of such a reading programme in the development of L2 competence (Hafiz & Tudor 1989). The control groups were tested on two occasions and received no treatment during the three-month study. The experimental group received exclusive treatment for the duration of the investigation. They were provided with graded readers (§2.4.1) and could select whichever book they were interested in reading. Additionally, they were expected to give an oral on the books read once a week (Hafiz & Tudor 1989). All three groups were given the National Foundation for Educational Research (NFER) tests of proficiency in English at the beginning of the treatment and again as a posttest at the end of the programme (Hafiz & Tudor 1989). Results from the pre- and posttests indicated that there was significant improvement on the tests. In other words, the findings showed that the extensive reading programme had a positive effect on L2 competence, especially with regard to the writing tests (Hafiz & Tudor 1989). Thus, the authors argue that this study lends support to Krashen's hypothesis, namely that 'an input-based and acquisition-oriented mode of learning can lead to an improvement in learners' linguistic skills in a second language, as regards reading and writing at least' (Hafiz & Tudor 1989, 8).

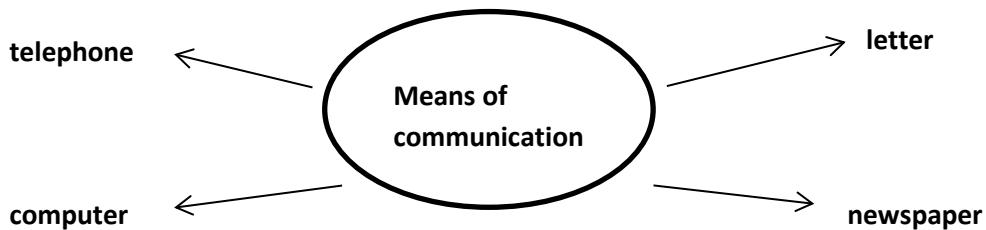
According to Schmitt (2007), in order to facilitate incidental learning, learners' exposure to English must be maximized. He proposes that extensive reading as well as narrow reading increase language input. Narrow reading 'entails reading numerous texts but all on the same topic' while extensive reading refers to reading a lot (Schmitt 2007, 834). The rationale for narrow reading is that reading different texts on a specific topic means that the technical vocabulary or topic-specific vocabulary occurs repeatedly which results in easier reading and ultimately increases chances of learning this vocabulary (Schmitt & Carter 2000). In addition, research (e.g. Elley 1991) suggests that extensive reading is very effective in increasing general language proficiency. Consequently, extensive reading promotes development of general language proficiency (Hafiz & Tudor 1989; Elley 1991). This type of reading

can be accompanied by narrow reading to increase language input, as well as increase learning of specific vocabulary.

### 2.5.2 Explicit development of vocabulary

*Explicit development of vocabulary* refers to the conscious learning of words (§2.2). One way in which vocabulary can be explicitly learned is by using **semantic maps** (Schmitt 2007). This method entails grouping words together graphically that are related to each other. In other words, words or phrases that can be associated with the new word in meaning are represented visually. In this way students will not only draw on their background knowledge, but new words can be integrated with old words.

For example, the following words (*telephone*, *computer*, *letter*, *newspaper*) are all related to *means of communication* and are graphically grouped together in the example below.



Sökmen (1997) similarly claims that activities which promote the **formation of associations** are effective for assisting in the long-term storage of words, for example, asking students to make use of their background knowledge to connect a new word to already known words, which build up students' semantic networks. **Semantic mapping** can be taught in order to brainstorm semantic associations of words (Sökmen 1997), for example, asking students to provide words they can think of when they hear the word *university*. They could come up with the following words: *students*, *lecturers*, *lectures*, *teaching*, *learning*, *information*, *writing*, etc. These words can be presented graphically by using a diagram, for example.

Nattinger (1988) argues that to improve understanding of words, students should be taught **word morphology**. The latter, which is also referred to as word parts, i.e. affixes and stems, are common in academic words (§2.3) as many of these words are made up of Latin and Greek derived affixes and word stems (Schmitt 2007). For example, the prefix *re-* (again) which is often used with verbs and related nouns, adjectives and adverbs, e.g. *redefine*, *redecoracion*. In addition, knowledge of word parts is

valuable in remembering partially known words (Schmitt 2007). According to Nation (1990), spending time on explicitly teaching these affixes and word stems is time well spent. Moreover, the reviewed literature has shown that this method can be used to successfully learn a lot of words (Nation 2001).

Another method that relies on associations is that of teaching **word families**. The latter can be defined as the word stem or base word and its derivatives and inflections (Schmitt & Zimmerman 2002). For example, the word *appropriate* has the following members in its word family: *appropriacy, appropriately, appropriateness, inappropriacy, inappropriate* and *inappropriately*. According to Nation (2006), it can be assumed that a student who knows at least one of the members in a word family could in all likelihood understand the other members. Despite the fact that L1 research shows that the word family is a psychological unit (Bertam, Baayen & Schreuder 2000, cited in Nation 2006), Schmitt and Zimmerman's (2002) study shows that knowing one member of a word family does not guarantee knowledge of the other members of the family. In other words, it is not a given that knowledge of one of the members implies knowledge of the other words in the family. For this reason, Schmitt (2007) claims that teaching word families instead of single words increases vocabulary learning. Using word families is particularly relevant to the current research study as nearly all the words in the AWL have derived affixes and word stems, for example *concept: conception, concepts, conceptual, conceptualisation, conceptualise, conceptualised, conceptualises*, etc.

Additional studies provided further support for explicit vocabulary instruction. Hill and Laufer (2003, in Schmitt 2008, 352), for example, found that ‘post-reading tasks explicitly focusing on target words led to better vocabulary learning than comprehension questions which required knowledge of the target words’ meaning’.

Any of the above methods can also be supplemented with classroom activities to provide students with opportunities that stimulate language use. The following illustrates some activities which maximize engagement with words (Schmitt 2008, 342).

- Learners can use an Internet chat programme; in pairs they can negotiate a picture story sequencing task and a decision-making task. This type of activity can be used to encourage productive use of target words taught.
- Learners can receive L1 translations for target words and use these in sentences.

- Learners can be given the chance to make new word forms on their own before the forms are given to them. This task can be given to them after they are taught word morphology, for example.
- Learners could retell a passage they read using the words and ideas seen in the passage. The key words can receive explicit attention and then students can be encouraged to use them when they retell or rewrite the story.
- Learners could record words and their lexical characteristics in a vocabulary notebook, e.g. whether they are nouns, verbs, etc, and their word families.

### **2.5.3 A combination of incidental and explicit development of vocabulary**

This approach argues for explicit and implicit development of vocabulary. In other words, vocabulary is developed both explicitly and implicitly by, for example, teaching certain types of vocabulary using a number of methods, in addition to extensive reading. In the late 1990s, two studies found positive evidence of explicit vocabulary instruction combined with incidental vocabulary development. The first study examined the language learning outcomes of a teaching approach which dealt specifically with vocabulary instruction (Paribakht & Wesche 1993). The study involved 37 university students. The one group (comprehension based) focused on reading and listening using authentic texts, such as radio broadcasts and newspaper articles (Paribakht & Wesche 1993). The other group of students ('four-skill') received teaching which focused on the four skills, including explicit exercises on vocabulary and grammar. This group also received the same theme based listening and writing texts ('comprehension-based'). The first group, namely the comprehension-based group, received additional instruction on words pertaining to one of the themes. Findings from the cloze tests show that the comprehension-based group, who received additional vocabulary instruction, made significant gains for the total number of words, content words and discourse devices such as linking words (Paribakht & Wesche 1993). The four-skill group, on the other hand, only made significant gains for content words (Paribakht & Wesche 1993). The findings imply that even though reading does result in vocabulary knowledge gains, explicit vocabulary instruction can develop word knowledge to a greater degree.

Zimmerman (1997) assessed the effects of two types of vocabulary learning treatments on 44 L2 students preparing for university entry in the United States. For a duration of 10 weeks (3 hours per week) the students, who were divided into two groups, received vocabulary instruction and a reading assignment (experimental group) or only received the reading assignment (control group), i.e. the latter

entailed reading for the three hours. Both groups received the same assignment, but the experimental group had additional vocabulary instruction comprising various vocabulary activities (Zimmerman 1997). Findings from the study indicate that the experimental group had a higher mean score on the checklist test (posttest) measuring vocabulary knowledge than the control group (Zimmerman 1997). In other words, it appears that reading accompanied by vocabulary instruction results in better vocabulary learning.

In addition, a study by Al-Homoud and Schmitt (2009) compared extensive reading with traditional language teaching involving intensive reading and vocabulary exercises. Seventy students at a university in Saudi Arabia were divided into two groups which received different treatments. Treatment for the one group involved intensive reading of about 200 to 400 word texts succeeded by comprehension questions, while treatment of the other group entailed extensive reading of graded readers (Al-Homoud & Schmitt 2009). The effects of the ten week intervention on the groups were assessed by means of the three levels of the VLT, namely the 2000, 3000 and academic word levels. Results show that both groups improved on the three word levels. Table 2.1 on the following page gives a summary of the results of the VLT levels regarding how many words were learned for the duration of the intervention and how many words were learned a day (Al-Homoud & Schmitt 2009, 394). This study therefore found that extensive reading of graded readers results in fairly similar gains in vocabulary knowledge as intensive reading (Al-Homoud & Schmitt 2009).

**Table 2.1 Extensive and intensive reading groups**

Group	Extensive reading group	Intensive reading group
<b>Words learned: 2000 word level</b>	390 words ( $\pm$ 5.57 words / day)	460 words ( $\pm$ 6.57 words / day)
<b>Words learned: 3000 word level</b>	140 words ( $\pm$ 2.00 words / day)	142 words ( $\pm$ 2.03 words / day)
<b>Words learned: academic word level</b>	32 words ( $\pm$ 0.46 words / day)	44 ( $\pm$ 0.62 words / day)

Furthermore, a study by Al-Homoud and Absalloum (2012) investigated the effects of an extensive reading programme on the vocabulary size, depth and reading speed of 127 students at a university in

Saudi Arabia. Vocabulary knowledge was tested on the 2000, 3000 and academic word levels of the VLT. For the eight week duration of the study, the extensive reading group read graded readers, while the intensive reading group had one reading textbook (Al-Homoud & Absalloum 2012). Results from the study show that both groups improved vocabulary knowledge at the three word levels and that there was no significant difference in scores between the groups. Despite an increase in reading speed of both groups, the reading speed of the extensive reading group exceeded that of the intensive group (Al-Homoud & Absalloum 2012). Consequently, extensive reading appears to be just as effective, if not more effective, than intensive reading regarding vocabulary development and reading speed. One also has to consider the length of period for extensive reading. If students are encouraged to develop their habit of reading, then extensive reading becomes a life-long habit with cumulative effects, and not just an 8-week intervention.

Schmitt (2008, 354) states that ‘words acquired by incidental learning are unlikely to be learned to a productive level, and so the additional attention that comes from intentional learning may be required to push them to this level of mastery’. In their study, Sonbul and Schmitt (2009) assessed the efficacy of explicit teaching of new words in reading passages comparing incidental and explicit vocabulary learning. They compared incidental learning from reading only with incidental learning from reading and explicit instruction (Sonbul & Schmitt 2009). The study involved 40 university students in Saudi Arabia. Findings from the delayed posttest measuring vocabulary knowledge of the target words indicate that the incidental vocabulary learning group did not make significant gains in form recall and meaning recall knowledge, even though they could recognize the meanings of 38% of the words tested (Sonbul & Schmitt 2009). The explicit vocabulary learning group made better gains on all three levels of mastery tested (form recall, meaning recall and meaning recognition). Consequently, reading (incidental learning) and explicit vocabulary instruction appear to be more effective in vocabulary acquisition than reading alone.

#### **2.5.4 Increased metacognitive awareness**

*Metacognitive awareness* refers to being aware of your thinking. In formal education it involves being aware of how learning takes place. This awareness of the learning process and the strategies which can be employed can lead to academic success. According to Rahimi and Katal (2012, 78), ‘the use of metacognitive strategies allows students to plan, control, and evaluate their learning that eventually helps them gain higher achievement and better learning outcomes in both face to face and virtual

learning environments'. If students are aware of how they learn and which strategies best suit them, they achieve success in their studies. One way in which to increase student's metacognitive awareness of vocabulary acquisition is through strategy instruction.

Coady (1997) argues that several studies have shown that explicit teaching of vocabulary strategies are beneficial to students. The underlying assumption is the belief that 'activities which require more engagement with and manipulation of the information to be learned (deep processing) generally lead to better retention' (Schmitt 2007, 755). Furthermore, Sökmen (1997) and Coady (1997) claim that activating background knowledge and integrating new words with old words are two very significant aspects in vocabulary acquisition.

The first type of strategy that can be taught would be that used to discover a word's meaning, by guessing the word's meaning. Another way to find the meaning of an unfamiliar word is by using a dictionary or the Internet. Using these strategies entails trying to figure out (guessing from context) the word's meaning or looking up the meaning of the word in a dictionary or using the Internet on one's own without the assistance of another person. Moreover, Sökmen (1997) states that one should keep in mind that guessing from context does not warrant long-term retention of words, and should be taught to aid students in understanding unfamiliar words.

The second type of vocabulary learning strategy, referred to as **memory strategies**, has to do with learning new words by associating them with prior knowledge by means of imagery, semantic maps (§2.6.2), the keyword method, or by linking new words to known synonyms and antonyms (Schmitt 2007). From the research, it appears that form rather than the meaning of words seems more important in storing words (Nattinger 1988). As a result, mnemonic devices (aids to commit words to memory) were introduced in the 1980s, such as loci (visual image), paired associates and key words which are proposed to enhance storage of words.

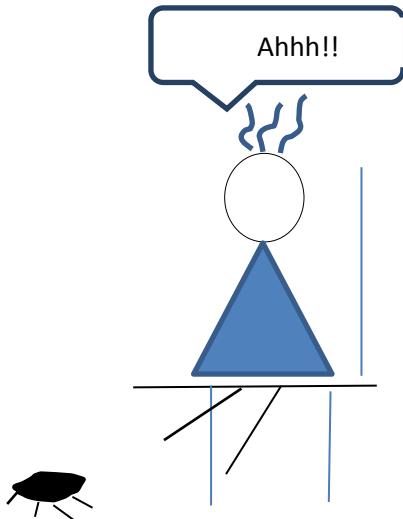
Loci refer to sequences of visual images that can be recalled from memory with little effort (Nattinger 1988). According to Worthen and Hunt (2011, 59), 'the information is organized by placing the information that must be remembered first in exterior locations of the imagined place, and the information that is to be remembered later is placed in the interior of the image'. This method joins the method of active visualization with structures and experiences already known (prior knowledge). An analogy can be drawn between this method and creating a well-known path with locations which will

result in automatic storing (Behr 2012). A path along a road which is often travelled or a routine can be used to create a way to remember words. One could, for example, use any routine to create locations along a path in order to store words. Imagine the first thing you do when you wake up is to look at your alarm clock on the bedside table and this could become a location for a word that needs to be memorized. Thereafter, you put on your slippers which depict another location to which a word can be attached. The next part of your morning routine might involve having a cup a coffee, which could be another location to which a word can be attached. Once this path consisting of locations from a morning routine is established it can be recreated in the mind which as a result aids in memorizing the words attached to the different locations. The memorised words can be linked or randomly chosen words.

Other memory strategies involve learning **word pairs** which entail memorization of certain sequence words, i.e. linking two words of similar sound or meaning (Nattinger 1988). Word pairs could comprise translation equivalents, for example, English *lecturer* – Afrikaans *dosent*), paired associates in English (*method* – *way*), or word-picture pairs, as in the following example:



An extension of paired associates is the **keyword strategy**, which has proven to be quite effective and popular (Atkinson 1975 and Merry 1980, in Nattinger 1988). The word to be learned is associated with its translation or another known English word in a special way. That is, an association must be made between the word that needs to be learned and a related word that serves as the key to memorize the word. The following is an example of the keyword method used in the current research study. The word that must be remembered is *approach*. This word is then related to *cockroach*, which is a word that is already known and sounds like the word to be remembered. An image is then created to which the already known word is linked, accompanied by a sentence containing the word to be remembered.



The cockroach is **approaching** the lady.

Key words can be invented by the students in order to permit a deeper level of processing which facilitates storage. By effectively using this strategy, students play an instrumental role in the learning context and can continue to use this strategy outside the English classroom. Furthermore, Sökmen (1997) reaffirms the use of the keyword method as a mnemonic device. There is in fact additional research confirming the success of this method (Levin et al. 1992; Levin 1993).

Oxford and Scarella (1994) proposed a research-based approach to vocabulary teaching which includes strategy instruction. In this approach teachers consider the words students need to know (needs assessment); instruction is tailored, i.e. vocabulary is taught using a variety of activities; students are taught how to independently continue acquiring words, and vocabulary learning strategies are taught.

A study by Nation and Moir (2002) investigated the vocabulary learning strategies of ten adult language learners. They examined which strategies the learners make use of when learning vocabulary and the efficacy of these strategies. The learners were interviewed before and after an intensive English course they attended. In addition, they were required to learn between 30 and 40 words each week using a vocabulary notebook, and they wrote weekly tests (Nation & Moir 2002). The results from their study show that rote learning or memorizing was the most common strategy used by the learners to study words. Vocabulary knowledge was measured by means of an adaptation of the Vocabulary Knowledge Scale. However, the test scores show that the strategies used by the learners did not contribute to long-term vocabulary knowledge of the words they studied (Nation & Moir 2002).

Gu's (2010) study investigated the changes in vocabulary learning strategies and how these changes related to the vocabulary of 100 Chinese EFL students in Singapore. The students were selected from 14

universities and completed a six month English programme. The students completed a pre- and post-questionnaire on vocabulary strategies, as well as Nation's (2001) vocabulary levels test (VLT) combined with Goulden, Nation and Read's test (1990) to measure their passive vocabulary. Their active knowledge was assessed using the lexical frequency profile (LFP) (Gu 2010). Findings showed that there was a significant improvement in passive and active vocabulary. The average percentage of the 2000 words increased with 2%, while the average percentage of the academic words increased from 2% to 5% (Gu 2010). In addition, the results show that students used more vocabulary learning strategies at the end of the programme than they did at the start of the programme. The students' most used strategies were the dictionary and contextual guessing (Gu 2010).

Strategy instruction should play a significant role in vocabulary instruction. Students who are explicitly taught such strategies and given regular opportunities in the classroom to put them into effect will, it is assumed, use them productively in the future to increase vocabulary knowledge.

The vocabulary teaching methods discussed above all have merit and contribute to the very complex process involved in acquiring a word to mastery level. As a result of the incremental nature of word acquisition, the method chosen will largely be dependent on the context and participants involved. Furthermore, the literature (Paribakht & Wesche 1993; Zimmerman 1997; Al-Homoud & Schmitt 2009; Sonbul & Schmitt 2009) strongly supports combining methods which result in significant gains in vocabulary knowledge.

In the current study the vocabulary programmes involved a combination of the teaching methods discussed in the above subsections. Instruction for the explicit group included reading articles containing the target words, explicit instruction of the words and explicit instruction on vocabulary learning strategies, namely, the keyword strategy, word part strategy, word card strategy and dictionaries. The study sought to find out in which way such a reading plus explicit instruction intervention affected vocabulary development and academic literacy levels.

Treatment of the implicit group, on the other hand, entailed exposure to texts to enable incidental learning of the same target words. The implicit group read the same articles used for the explicit group, as well as self-selected short fictional texts. Besides only reading, this group also completed worksheets on the articles that were read. These primarily focused on comprehension and spoken feedback by a class discussion and a debate. The purpose of the intervention for the implicit group was to find out

whether reading alone followed by some discussion led to significant gains in vocabulary development and academic literacy levels. The procedures involved in the study are discussed in more detail in Chapter 3.

## 2.6 Vocabulary assessment

The final discussion in the chapter deals with assessment, an important part of any aspect of language learning and teaching.

From the previous discussions it is evident that the role and importance of vocabulary in second language learning and teaching has been anything but static. Different approaches in teaching have played a role in the status of vocabulary instruction in second language research. In addition, advances in computer technology have emphasised the importance words should play in language. As a result of the varied role vocabulary learning and teaching has played, vocabulary assessment has a history of its own.

As already mentioned (§2.1), two areas of interest are prominent in L2 vocabulary testing, namely the size and depth of word knowledge. When measuring the size or breadth of vocabulary knowledge, two major methods are significant. The first is based on sampling words to be included in the vocabulary test from a dictionary, and the second is based on a corpus or a frequency list compiled from a corpus (Nation 2001). When sampling from a dictionary it is imperative that the selected dictionary is large enough to contain all the words that the learners may know. ‘The proportion of words known in the sample is then converted to the proportion likely to be known in the whole dictionary’ (Nation 2001, 363). According to Read (2007, 107), ‘one limitation of dictionaries for L1 users is that they do not give any explicit information about the frequency of words because it is generally preferable to present words in a vocabulary test in ascending order from most common to rare’. Read further states that this deficiency in dictionaries can be overcome by word frequency lists based on computer corpora. The Cobuild dictionary is currently the only one that provides the frequency levels of the words.

The second method involved in testing vocabulary size is the corpus-based method and can be applied in two ways. The first entails collecting a corpus of language used by a person or group of people to see how many words it comprises. This is not very reliable, though, as this will not give a measure of total vocabulary size because any corpus is likely to represent only part of a language user’s vocabulary (Nation 2001, 363). The second way is to create a frequency list from a corpus of texts. Sampling

involves arranging vocabulary into frequency-based groups, i.e. the most frequent 1000 words, the second 1000 most frequent words and so on.

According to Read (2007), there are reasons why vocabulary size estimates are significant. One reason is that vocabulary size is closely associated with reading comprehension ability, and vocabulary tests have consequently had a significant role in research on reading development and literacy programmes (Read 2007). For L2 learners, ‘vocabulary assessment can reveal the extent of the lexical gap they face in coping with authentic reading materials and undertaking other communicative tasks in the target language’ (Read 2007, 107).

Simple and decontextualized item-type tests have been widely used for vocabulary size tests. One of the simplest formats used for measuring vocabulary breadth is the checklist or yes/no test. This format presents the test-takers with a set of words and requires them to indicate with a tick (✓) whether they know each one (Schmitt and McCarthy 1997). However, research has found that a simple yes/no judgment does not suffice (Nagy, Herman & Anderson 1985; Paribakht & Wesche 1993). Depth of word knowledge, being as complex as it is, can therefore not be measured with a tool that primarily measures vocabulary size.

Nation’s (1990) receptive vocabulary levels test (VLT) appears to be a popular vocabulary size measure and is the most widely used test of English vocabulary size for L2 learners (Nation 2001; Schmitt, Schmitt & Clapham 2001). The test contains a sample of 36 words for each of the five frequency levels, i.e. from the 2000 to the 10 000 words. Test-takers are required to match half of the words to short definitions of their meanings. The following is an example of the first test items of the 2000 word level of the improved VLT (Schmitt, Schmitt and Clapham 2001).

### **The 2 000 word level**

- |          |                             |
|----------|-----------------------------|
| 1 copy   |                             |
| 2 event  | _____ end or highest point  |
| 3 motor  | _____ this moves a car      |
| 4 pity   | _____ thing made to be like |
| 5 profit | another                     |
| 6 tip    |                             |

The primary purpose of the test is to give teachers a quick, practical way of measuring the size of the students' vocabulary. Consequently, knowledge of vocabulary size can be the basis of a vocabulary learning and teaching programme.

Apart from vocabulary size, another area of interest in L2 testing research is assessing the quality of word knowledge (or depth of knowledge). More than twenty years ago Read (1993) pointed out that the types of test format used to measure vocabulary size are inept indicators of how well words are known, especially high frequency words that have numerous meanings and uses, because only the word's receptive knowledge is required and not its productive knowledge.

Research exploring L1 and L2 incidental learning of vocabulary required a measurement to determine increases in learners' word knowledge and a common measure of deep word knowledge was developed by Paribakht and Wesche (1993) as part of a study to investigate vocabulary acquisition. These researchers were interested in the incidental acquisition of word meaning through intensive reading and developed a written elicitation procedure based on their Vocabulary Knowledge Scale (VKS). The VKS required students to report their word knowledge on a five point scale (Paribakht and Wesche 1993, 316):

1. The word is not familiar at all.
2. The word is familiar but the meaning is not known.
3. A correct synonym or translation is given.
4. The word is used with semantic appropriateness in a sentence.
5. The word is used with semantic appropriateness and grammatical accuracy in a sentence.

In the study, Paribakht and Wesche (1993, 21) found that the VKS was 'sensitive to gains in the degree of knowledge of the target words' during the ESL course resulting in modified versions of the scale which have been used by Read (1995) and Joe (1995) in oral interviews. In addition, modified versions were used in studies of L2 vocabulary by Zareva, Schwanenflugel and Nikolova (2005). The VKS is, however, not without criticism. According to Schmitt and McCarthy (1997), there is a gap between levels 2 and 3. As a result, the reliability of supplying synonyms and composing sentences to show word knowledge becomes questionable.

In addition to the VKS, Read (1993) designed a written measure of depth of knowledge namely, the word associates format. This format is based on the concept of word association and offers opportunities

to assess key elements of the core meaning of the target word, or alternatively more than one meaning of the word. The following is an example of this test format (Schmitt and McCarthy 1997, 317):

***edit***

arithmetic	film	pole	publishing
revise	risk	surface	text

The word in italics is being tested. Test-takers are required to choose four of the eight words that are semantically related to the target word, in other words, those words that are related to the target word (*edit*) in meaning. ‘The four ‘associates’ are selected to represent various relationships: paradigmatic (synonyms), syntagmatic (collates) and analytic (representing part of the meaning of the word)’ (Schmitt and McCarthy 1997, 317). The words semantically related to *edit* are: *revise* (paradigmatic), *film* (syntagmatic), *publishing* (syntagmatic) and *text* (analytic). Read (1993), however, found that, despite the test being overall good as a measure, there was evidence that the test-takers’ willingness to guess played a significant role in their performance on certain test items. Read (1995) revised the test and included two concurrent measures namely, an interview using a modified version of the VKS and a word-definition matching type. The revised test as a whole functioned well but individual item scores gave reason to doubt whether corresponding words were known.

Read’s (2007) initial studies involved students studying English for academic purposes at a university in New Zealand. Bogaards (2000), Greidanus and Nienhuis (2001), as well as Greidanus, Bekk and Wakely (2005) however found the revised VKS test to be a challenging measure of word knowledge for advanced foreign language university students. The test has, however, not been limited to university students. Schoonen and Verhallen (2008) used the test in primary schools in the Netherlands, and Qian (1999, 2002) used Read’s (1998) test to study the relationship between L2 vocabulary knowledge and reading comprehension ability among adult learners of English in Canada. Lastly, Qian and Schedl (2004) concluded that a test based on word associates items is a suitable alternative to conventional multiple-choice items as measures of word knowledge. The test is therefore not limited or restricted to students at tertiary level or those studying English for academic purposes.

On the whole, vocabulary testing is two-fold. Vocabulary measures either assess vocabulary size or depth. To measure the former, a yes/no test or the VLT can be used to test receptive and productive

knowledge of words. Depth of vocabulary knowledge however involves a different type of measurement and two measures used include the VKS and the word associates test.

In the present study the focus of assessment was primarily establishing vocabulary size. The latter was measured by means of the receptive vocabulary levels test (Schmitt, Schmitt & Clapham 2001). The VLT was used as a pre and posttest to measure the five levels of word frequency (§3.5.2.2). In addition to the VLT, the study made use of short-term achievement tests (§3.5.2.3) to ascertain whether a specific vocabulary learning strategy taught resulted in words being learnt.

## **2.7 Conclusion**

The sections discussed in the literature review focused on vocabulary size and depth, types of vocabulary and vocabulary acquisition, specifically in second language or additional language contexts. Furthermore, the role of vocabulary in language learning and teaching was discussed and traced through the prominent teaching approaches. In addition, the different vocabulary teaching methods were explored. Lastly, the chapter discussed vocabulary assessment.

The literature reviewed informs the current research study and influenced the research design, materials and procedures used in the study.

The next chapter explains the research method used in more detail.

# **Chapter 3**

## **3.0 Introduction**

Chapter 3 serves to discuss issues pertaining to research methodology in language in general, as well as to situate the current study within the broader methodological landscape. Thereafter the research questions that informed the study are stated and the research design, participants, materials and procedures pertaining to the pilot studies and main study are described. The chapter concludes with a brief summary.

## **3.1 Qualitative and quantitative research approaches**

Research can broadly be subdivided into two types namely, qualitative and quantitative research. According to Nunan (1992, 3), qualitative research ‘assumes that all knowledge is relative, that there is a subjective element to all knowledge and research, and that holistic, ungeneralisable studies are justified’. This type of research is based on a synthetic-holistic approach. Seliger and Shohamy (1989, 27) state that this approach or perspective:

emphasizes the interdependence of the parts of the field. By ‘synthetic’ or ‘holistic’, we mean an approach to second language phenomena that allows us to view the separate parts as a coherent whole.

The purpose of this type of research is to understand and interpret phenomena, for example second language phenomena. Qualitative research is inductive. Nunan (1992, 13) describes inductive research as research that “seeks to derive general principles, theories or truths from investigation and documentation of single instances”. Seliger and Shohamy (1989, 29), similarly construe that the purpose of this research is “the discovery and description of the patterns or relationships yet to be identified in some aspect(s) of second language”. In other words, the researcher does not start off with a specific hypothesis but investigates the phenomenon from the bottom up.

Quantitative research, on the other hand, is ‘obtrusive and controlled, objective, generalizable, outcome-oriented, and assumes the existence of ‘facts’ which are somehow external to and independent of the researcher’ (Nunan 1992, 3). Quantitative research is based on the analytic approach, i.e. ‘an approach that will identify and investigate a single factor or cluster of factors which at some level are constituents

of one of the major systems' (Selinger & Shohamy 1989, 27). A typical feature is that it relies on numerical data. The purpose of this research is to test hypotheses or to look at the cause and effect of phenomena, as well as to make predictions. Quantitative research is therefore deductive, exploratory and descriptive. Nunan (1989, 13) states that this type of research 'begins with an hypothesis or theory and searches for evidence either to support or refute the hypothesis or theory'. In other words, the deductive approach begins with a preconceived notion and is hypothesis driven (Seliger & Shohamy 1989). The current study starts with the assumption that a vocabulary intervention can affect vocabulary development and academic literacy levels, and as a result is hypothesis driven. It is primarily a quantitative study.

### **3.1.1 Research design and research questions**

The main aim of the current study was to investigate the effects of two undergraduate vocabulary programmes on student vocabulary development and academic literacy, as well as student attitudes to vocabulary. To this end it used a pre-posttest design. Two different interventions were implemented – the one relied on the explicit teaching of vocabulary and vocabulary strategies, and the other relied on the implicit learning of words through reading and talking about the text. The study was informed by the following research questions:

1. What were the vocabulary and academic literacy levels of the first-year students who participated in the study?
2. In what way did the explicit and implicit vocabulary programmes have an effect on students' vocabulary development?
3. In what way did the explicit and implicit vocabulary programmes have an affect on students' academic literacy levels?
4. What was the relationship between students' vocabulary size and their academic literacy?
5. In what way did the explicit and implicit vocabulary programmes have an affect on students' attitudes about vocabulary?
6. How did the explicit vocabulary strategies affect students' word recall?
7. What was the relationship between students' self-assessment of their vocabulary knowledge and the means scores on the VLT?

The study is thus situated within the quantitative paradigm due to its reliance on numerical and psychometric data. The research questions call for this analytic approach. The following research hypotheses were generated from the above-mentioned research questions

- H1:** There are significant differences in the mean scores of the pre- and post-VLT of the explicit and implicit groups.
- H2:** There are significant differences in the mean scores of the pre- and post-TALL of the explicit and implicit groups.
- H3:** There is a significant relationship between mean scores of the academic word level of the VLT and mean scores of the TALL.

The research conducted is quasi-experimental in nature. The purpose of experimental and quasi-experimental research is to allow the researcher to control the conditions of the research situation so that the behavior under investigation can be observed (Nunan 1992). The student groups who formed part of this study were intact groups, placed together according to the English module they were registered for and the time slot in which the module was offered. Due to the fact that participants were not randomly selected the research study is quasi-experimental in design. The research study had pre- and post-tests and an explicit and implicit intervention group. Quantitative data were collected based on precise measurement using structured and validated data collection instruments for assessing vocabulary size, academic literacy levels and vocabulary attitudes.

Due to the nature of the research (i.e. to look at the effect of the explicit and implicit vocabulary programmes on the vocabulary size of the participants, as well as their vocabulary attitudes and academic literacy) the relevant variables involved were taken into account. The intervention programmes served as the independent variable, that is, the variable which the researcher expects to influence other variables (Nunan 1992). The dependent variable, on the other hand, refers to the phenomenon affected (Mouton & Marais 1996). The dependent variables represent the effect caused by the independent variables, i.e. vocabulary size, vocabulary attitudes and academic literacy levels as measured by the mean scores of the pre- and post-VLT, the pre- and post-questionnaire and the scores of the pre- and post-TALL of the explicit and implicit groups.

## **3.2 Validity and reliability in quantitative research**

Two constructs are particularly important in quantitative research, namely validity and reliability. It is crucial that the measurability of the data collected in the study be valid and reliable. Nunan (1992, 14) defines validity as the ‘extent to which a piece of research actually investigates what the researcher purports to investigate’. Reliability, on the other hand, refers to the consistency of a study. These constructs will be briefly discussed in the sections that follow.

### **3.2.1 Validity**

The study primarily investigates the way in which an explicit or implicit intervention affects vocabulary development, vocabulary attitudes and academic literacy, as well as whether a relationship exists between these dependent variables. To ascertain the participants’ vocabulary size, the improved version of Nation’s (1990) receptive vocabulary levels tests (VLT) devised by Schmitt, Schmitt and Clapham (2001), was used in the study. The test contains a sample of 36 words for each of the five frequency levels (Schmitt, Schmitt & Clapham 2001). Participants are required to match half of the words (30) to the short definitions of their meanings at each frequency level. This version of the VLT specifically measures vocabulary knowledge receptively and is regarded as a valid tool (Gallego & Llach 2009). The test’s validity has been reported on in numerous research studies (Read 2000; Laufer 1998) which provide evidence that the test is valid.

The VLT was used as a pre-test to assess the receptive vocabulary size of the participants at the start of the intervention in the study. The test was also used as a post-test to determine whether the scores on each frequency level were affected by the vocabulary programme.

The study also investigates whether the explicit/implicit intervention affects academic literacy. The academic literacy levels of the two student groups were tested using the Test of Academic Literacy Levels (TALL) (Weideman 2006) (described in §3.5.2.4). The latter was developed at the University of Pretoria in collaboration with colleagues from the North-West University and the University of Stellenbosch. It measures academic literacy according to the test designers’ definition of what it means to be academically literate.

According to Weideman (2006), the TALL has gone through various stages of development and been examined in detail by academics (e.g. Van Dyk & Weideman 2004 and Cliff & Hanslo 2005, in Weideman 2006). In addition, the test developers meet annually to ensure transparency and

accountability of the test (Weideman 2006). Consequently, the TALL measures the academic literacy of university students and can be considered valid, hence its usefulness in the study to assess the academic literacy level of the students who participated in the study.

The study also investigated students' attitudes to vocabulary. The pre and post-questionnaire are considered valid instruments as the questions specifically deal with aspects of vocabulary, vocabulary storage systems (i.e. the system used by a student according to which words are recorded, e.g. in a notebook or by writing in the margin of books, etc.) and vocabulary learning strategies.

Besides investigating the effect of the interventions on vocabulary size, vocabulary attitudes and academic literacy, the study also examines the effect of teaching vocabulary strategies on word recall. Short-term achievement tests (STATS) were designed to measure word knowledge of the words targeted in the intervention (described in §3.4.2.2). According to Nation (2001), STATS can be used to determine whether a group of target words that have been studied, has been learnt. The STATS are regarded as valid as they measure what they are supposed to, i.e. whether the words selected for attention during the intervention were recalled correctly over a short period of time – in this case, two days later. These tests were also conducted during the second pilot study and the words assessed received attention during the intervention.

Validity can further be subdivided into external and internal validity. External validity refers to generalizability (Beretta 1986, in Nunan 1992). In other words, it is 'the degree to which conclusions in your study would hold for other persons in other places and at other times, i.e. is the study replicable' (Web Center for Social Research Methods 2014). Internal validity, on the other hand, is concerned with the factors which affect the outcomes of the research (Beretta, in Nunan 1992). That means that 'you have the evidence that what you did in the study caused what you observed to happen' (Web Center for Social Research Methods 2014).

Because the research study investigated the effects of an explicit and implicit intervention, internal validity was taken into consideration. According to Mouton and Marais (1996, 50), internal validity refers to 'the fact that a study has generated accurate and valid findings of the specific phenomena which have been studied'. Participants were assigned to the explicit and implicit groups based on the class they attended for the ULEG module. Internal validity was strengthened based on the following aspects:

- participants in both groups were registered for ULEG, i.e. they followed the same curriculum;
- both groups received the same number of extra hours per week;
- both groups were taught by the same lecturer;
- the treatment each group received was done by the same lecturer; and
- both groups received instruction in the same environment, namely lessons were attended in the same lecture hall at the Language Centre.

### **3.2.2 Reliability of the study**

Reliability in research has to do with the consistency of the instruments used in a study. That is, the instrument should measure the same way every time it is used. Moreover, there are two types of reliability in quantitative research, namely internal and external reliability. Nunan (1992, 14) defines internal reliability as the ‘consistency and replicability of research of data collection, analysis and interpretation. That is, an independent researcher would come to the same conclusion as the conclusion of the original study if he or she reanalysed the data’. The Statistical Package for Social Sciences (SPSS) was used to help achieve internal reliability. In other words, using the same data and statistical procedures, an independent researcher would obtain the same results at the conclusion of the study when analyzing the data.

External reliability refers to ‘the extent to which independent researchers can reproduce a study and obtain results similar to those obtained in the original study’ (Nunan 1992, 14). Independent researchers could test their students’ receptive vocabulary knowledge using the measurement used in the study. Moreover, the standardized TALL would measure the academic literacy of students at university in the same way. The questionnaire could additionally be used to measure the attitudes of students regarding aspects of vocabulary.

The instruments used in the study can be regarded as reliable due to their consistency in what they measure. In the VLT there are 30 items for each level; the test as a whole produces a Cronbach alpha reliability index above .90 (Schmitt, Schmitt & Clapham 2001). Furthermore, the TALL averages at reliability levels of above 0.92 (Weideman 2012a). Additionally, the questionnaire and STATS were administered during the pilot studies (described in §3.4) and showed consistency in their measurement during the intervention. These will be reported on in Chapter 4.

### **3.3 Ethical considerations**

Because the research study entailed using the Language Centre facilities and students a request for permission to conduct the study was submitted to the Director of the Language Centre. Permission was granted by the Director verbally for the pilot studies, followed by written permission for the main study (cf. Appendix A).

During the lesson preceding the start of the teaching programme, each class was informed about the intervention programme. They were, however, not informed about whether they were in the intervention or the control group. In addition, students were informed about what the programme entailed, what the expectations of the programme were, and that participation was voluntary and not compulsory. Students were also asked to consult their timetables so that they could attend the 2-hour teaching programme each week for the duration of the research study.

During the next lesson consensus was reached regarding the time slots in which the teaching programme would take place (cf. Appendix B).

For ethical reasons, participants in both the explicit group (EG) and the implicit group (IG) completed a consent form (cf. Appendix D) whereby they agreed to participate voluntarily in the study. They were assured of confidentiality and anonymity and all students in the groups signed and submitted the consent forms.

### **3.4 The pilot studies**

Two pilot studies were conducted prior to the main study. The first was conducted during 2009 and the second pilot study was carried out in 2010. Both pilot studies are discussed in the sections that follow.

#### **3.4.1 The first pilot study**

The first pilot study was conducted during the second semester of 2009 (September to November 2009). The purpose of the first pilot was threefold: to trial the vocabulary testing tool, Laufer and Nation's (1995) Productive Levels test, as well as to determine whether the questions in the questionnaire were clear and unambiguous. Due to time constraints (including administering and marking the tests, coding, entering and analyzing the questionnaire data) students' word knowledge was only tested at the 2000 and 3000 word levels in the first pilot study.

In addition, the first pilot study also tested the viability of the vocabulary intervention programme. The participants in the explicit and implicit groups were allotted four periods, one hour each, of class per week (ULEG 2410). A decision was taken to use three of the four periods to teach the curriculum and the fourth period for trialling aspects of the explicit vocabulary intervention. This intervention group received direct instruction of selected words from the Academic Word List (Coxhead 2000), and was taught about vocabulary learning strategies. The implicit group read fiction (short stories) during their intervention hour. Further details about the interventions are provided in Section 3.4.1.3.

### **3.4.1.1 Participants**

The pilot group (N=78) was composed of first year students registered for the English for General Communication (ULEG 2410) module at the Language Centre, University of Namibia (UNAM). All the participants had obtained a D symbol for English as a Second Language (ESL) at the end of their secondary education. The population consisted of 59 female and 19 male students.

Of these, 58% lived in urban areas, while 42% resided in rural areas. Forty-six percent of the group were younger than 20 years; 43% were in the 20-29 age group; 9% were in the 30-39 year age group; and 2% were 50 or older.

Participants were grouped into two classes namely, the explicit group and the implicit group. Students attended either group based on their semester timetables. In other words, the students chose the group that suited their timetable so as to avoid conflicts with other modules.

### **3.4.1.2 Research materials**

In the previous section it was mentioned that two of the instruments were tested in the first pilot:

- Laufer and Nation's (1995) Productive Levels test was piloted to determine participants' vocabulary knowledge at the 2000 and 3000 word levels. Only these two levels were tested due to time limitations. The test was taken by 63 participants from the explicit (37) and implicit (26) groups.
- The second instrument tested was the questionnaire which consisted of 18 questions, designed to evoke participants' attitudes about vocabulary and how they learn words. The question format included a mix of yes/no questions, multiple-choice questions, open-ended and scaled questions.

### **3.4.1.3 Intervention procedures for the first pilot study**

The vocabulary intervention lasted for four weeks and was primarily intended to trial the procedures of the interventions with two groups of first year students and to test the research materials. The explicit and implicit groups were assigned the same number of hours for the intervention, but the activities differed for the two groups.

During the four weeks comprising 4 x 60-minute periods, students in the intervention groups (explicit and implicit) completed the questionnaire (30 minutes) and the vocabulary levels test (30 minutes) during the **first period**. The intervention procedures and sessions were explained to both groups during these first sessions. Thereafter (**second period**), students in the explicit group read a newspaper article (30 minutes) entitled ‘Michael Schumacher to make sensational Formula One return with Ferrari’ (Eason 2009) in which ten academic words were highlighted. For the remaining 30 minutes of the period students were introduced to the concept of the vocabulary journal (a notebook in which unfamiliar words and their meanings were recorded) and instructed to write the words into the vocabulary journal (any book could be used as a journal), as well as additional information about the word namely, what they thought the word meant ('guessed' meaning), as well as the dictionary definition of the word for next period. The **second period** for the implicit group involved reading the same article for 30 minutes. Thereafter they choose stories and read silently while I supervised and monitored.

During the **third period** both groups read a journal article (30 minutes) entitled ‘Why don’t language acquirers take advantage of the power of reading?’ (Kim & Krashen 1997). The text was quite different from the newspaper article, i.e. a different genre resulting in differences in register, structure, language, etc. Students in the explicit group had to identify vocabulary they were unfamiliar with by highlighting or underlining these for the remainder of the period. They were also taught a vocabulary strategy, namely guessing meaning from context. Nation’s (2001) five-step inductive procedure was used and practised with any of the ten words highlighted or underlined in the article. Students were shown how this procedure works and had to identify an unfamiliar word. For example, the students had to look at the word in front of and the word after the unfamiliar word they had highlighted and guess the meaning. If they could not, they were instructed to read the words in front of and after the word. Should they still not be able to guess the word’s meaning, they should read the sentences before and after the word until they had read the entire paragraph in which the word appears and fully understood the context. In addition to reading the same journal article, students in the implicit group read short stories (**third**

**period)** and I supervised the reading activity. They could use dictionaries to look up words they did not know.

During the **fourth period** students from both groups wrote a reading test which included a vocabulary section testing knowledge of the words that were selected during the intervention. In sum, the explicit group read two texts, was given a list of 10 academic words to learn, and learned one vocabulary strategy, while the intervention for the implicit group primarily entailed reading, on the assumption that new words could be learned incidentally through reading.

### **3.4.1.4 Data collection procedures and analysis**

The data collection materials namely, the questionnaire and the productive VLT, were administered in the first week of August 2009. All 78 participants (explicit and implicit groups) completed the questionnaire during the first part of the period. Thereafter, participants took the vocabulary test for the remaining part. Before each one of the data collection materials was administered I briefly went through the instructions with the students in both groups.

The questionnaire and vocabulary levels test were collected, numbered and data were entered using the Statistical Package for Social Sciences (SPSS) software. I marked the vocabulary test which is a modified cloze test and did not allow for any spelling mistakes. The next section describes the results from the pilot.

### **3.4.1.5 The first pilot study results**

The scoring and analysis of the questionnaire tested during the pilot study showed that some of the questions needed revising. For example, it was found that the phrasing in one question was ambiguous. Students could have been confused about whether to tick all the categories they were comfortable with or only those options that were relevant to them. Two other questions also appeared problematic as the difference between these questions was not clear. The former asked which aspects presented vocabulary challenges and the latter asked in which skills vocabulary difficulties were experienced.

Consequently, changes were made to the main questionnaire based on the results of the trialled questionnaire. These changes are summarised in Table 3.1.

**Table 3.1 Summary of changes made to materials**

<b>Page number of questionnaire (2009)</b>	<b>Original</b>	<b>Action</b>	<b>Revised</b>
Page 3	Write down the name of the secondary school you attended.	Relevance questioned; question replaced.	Write down the first language you learned as a child.
Page 4	3. What aspects of vocabulary are you comfortable with?	Replaced by scaled questions (Likert scale).	3. Place a tick on one of the following to indicate your attitude to the statements. Students strongly agreed (1), agreed (2), were neutral (3), disagreed (4) or strongly disagreed (5) with each statement.
Page 5	4. Which aspects of vocabulary present challenges for you?	Similar to previous question (3) and therefore removed.	Question 3 suffices
Page 5	5. In which of the following English skills do you experience difficulties when using words?	Options given in response are minimised and numbering changes.	4. In which of the following English skills do you experience difficulties when using words?
Page 5	6. In which of the following English skills do you experience difficulties when understanding words?	Options given in response are minimised and numbering changes.	5. In which of the following English skills do you experience difficulties when understanding words?
Page 6	7. Do you have a vocabulary storage system?	Edited and phrase added.	6. Do you have a vocabulary storage system, i.e. a way that you record words for

			later use? Students had to tick Yes (1) or No (2).
Page 8	13. Which of the following vocabulary learning strategies are you familiar with?	Question revised and grammatically corrected.	13. With which of the following vocabulary learning strategies are you familiar?
Additions		Two questions added to revised questionnaire.	15. What kind of dictionary do you use? 16. When you look up a word in the dictionary, what do you do with the information? (Do you write it down or do you simply remember it?)
Page 9	15. Do you enjoy reading?	Revised and replaced.	17. Do you enjoy reading for study purposes?

Data analysis showed that the students in both groups (explicit and implicit) viewed vocabulary knowledge as being very important for language proficiency. Results also showed that many of the students (62.7%) did not think they knew enough words. Furthermore, students felt more comfortable with the pronunciation and spelling of words than with word structure and using words in sentences. Unfamiliar words also posed more of a challenge in reading than in listening, and more in writing than in speaking. Moreover, the majority of students did not seem to have a storage system in which they recorded (stored) new words (i.e. a systematic way of noting and learning words). The students who had a vocabulary storage system (VSS) made use of a notebook in which words were recorded. This notebook was used as a personal dictionary. Results also showed that the majority of students claimed to be familiar with guessing the meaning from context.

In addition to piloting the questionnaire, the trial of the vocabulary assessment tool was to establish whether it would be viable for the study. Because only two levels of the vocabulary test were assessed, results were limited. Table 3.2 shows the results of the productive VLT.

**Table 3.2 Vocabulary levels of explicit and implicit groups**

	2000 word level (out of 17)		3000 word level (out of 18)	
Group	Explicit	Implicit	Explicit	Implicit
N	37	26	37	26
Mean	10	11	6	6
%	59%	65%	33%	33%

Despite the limited results, analysis of the data show that the mean percentages of both groups were generally low at both frequency levels.

According to the Levels Test on-line (Cobb 2009), a student should score 83% or more for a level to show mastery at that level, i.e. the student knows the high frequency words at that particular level. The mean scores of the two groups indicate that a large number of students did not have the expected knowledge of the high frequency words required at tertiary level as they embarked on the academic journey. Since the duration of the intervention in the main study was longer than this pilot, it was decided that participants in the main study would be tested on more than two levels. The reason why only two levels were tested was because of limited time for administering and marking the test. As the reviewed literature showed correlations between reading comprehension and receptive vocabulary size (§2.1), I decided to use a receptive vocabulary levels test instead of the productive vocabulary levels test for the main study. Even though both the productive and receptive VLT measure vocabulary size at different frequency levels and both have correlations with reading comprehension, I decided to use the receptive VLT to determine the students' receptive vocabulary size and whether it correlates with academic literacy.

In addition to the above changes, some changes were also made to the intervention itself. I decided to replace the newspaper article used in the trial with an academic article instead. Since the words that receive attention in the intervention are academic words, I felt that the academic reading text containing these words would be more appropriate for the intervention. I also decided to focus on vocabulary learning strategies for the main study, that is, not on vocabulary strategies used to find the meaning of unfamiliar words, but on those which can be used to learn new words. I decided to teach four vocabulary learning strategies, namely the keyword strategy, word part strategy, word card strategy and how to use the dictionary.

The trial of the intervention showed that using one of the four hours assigned to the module had a negative impact on the completion of the content of the ULEG module in the hours left for class. It was therefore decided that the intervention should include an additional two hours besides the four hours assigned to the module.

Lastly, I also decided to add short-term achievement tests to the main study to assess whether the target words being studied were actually learned and their meanings retained.

As a result of the changes made to the research instruments and the suggested modifications to the duration of the vocabulary teaching programme and the intervention procedures, a second pilot study was conducted in 2010 and is reported on in the next section.

### **3.4.2 The second pilot study**

The second pilot study was conducted during the second semester of 2010 (September to November 2010). Once again, the main aim of this second pilot study was to test the research materials (instruments) to be used in the main study and to trial aspects of the intervention, i.e. to assess the feasibility of two additional hours for the intervention programme despite the four hours of class per week. During the previous pilot study it was found that one hour was insufficient to achieve everything set out for a vocabulary intervention session. The intervention programme was also piloted to ascertain the effectiveness of the procedures involved in the teaching programme.

The research materials piloted during this phase are listed below:

- Consent form;
- Revised questionnaire;
- Revised version of the receptive vocabulary levels test (VLT) instead of the productive vocabulary levels test;
- Reading materials for the programme; and
- Short-term achievement tests.

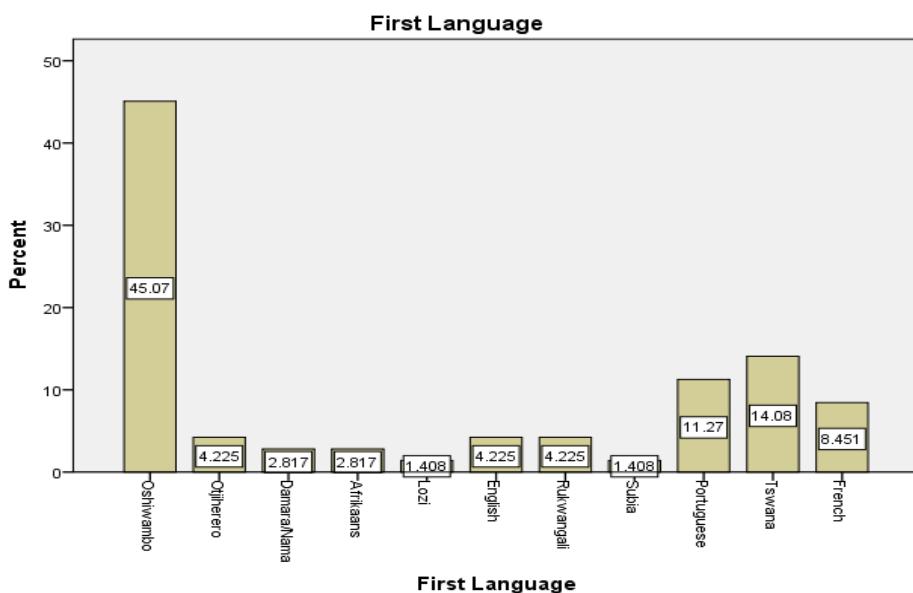
#### **3.4.2.1 Participants**

Similar to the first study, the second pilot group ( $N=71$ ) was composed of first year students registered for the English for General Communication (ULEG 2410) module at the Language Centre, University of

Namibia (UNAM). All the participants had obtained a D symbol for English as a Second Language (ESL) at the end of their secondary education or were admitted to UNAM through the Mature Age Entry Programme. The sample consisted of 40 female (57%) and 30 male (43%) students.

Oshiwambo, which includes the Oshikwanyama and Oshindonga dialects, is the first language (L1) of the majority of the participants in the study (45%). Figure 3.1 shows the percentages of the other first languages identified by the analysis.

**Figure 3.1 Descriptive statistics of first languages**



Most of the group (52%) was younger than 20 years; 44% were in the 20-29 age group; 3% were in the 30-39 year age group; and 1% were 40 or older.

Participants were grouped in two classes based on their semester timetables. This grouping depended on whether participants could attend the group without it clashing with their other semester modules. The one group became the explicit group (EG) and the other group subsequently became the implicit group (IG).

### **3.4.2.2 Research materials**

The revised questionnaire containing 18 items was given to participants in the two intervention groups. The first questions in the questionnaire related to biographic information relating to their age, gender and home language. The rest of the questions in the questionnaire focused on aspects of vocabulary

learning (see Appendix C). A consent form was also piloted which would be used in the main study (see Appendix D).

Participants were given the improved receptive version of the Vocabulary Levels Tests (VLT) by Nation (1990), devised by Schmitt, Schmitt and Clapham (2001), which replaced the productive VLT used in the previous pilot study. The improved version of the VLT (see Appendix E) consists of 30 items per level instead of the 18 items included in the previous vocabulary tests, which increases the test's reliability index (Schmitt, Schmitt & Clapham 2001). The receptive version of the VLT tests participants' receptive knowledge of word meaning at the 2000 level, 3000 level, 5000 level, 10 000 level and academic word level.

Three short-term achievement tests (STATS) were also included in the second pilot test. These tests were incorporated into the research study to see 'whether a recently studied group of words has been learned' (Nation 2001, 373). The purpose of the STATS was to determine whether the words targeted for attention in the intervention were recalled correctly.

The first short-term achievement test (STAT 1) was a translation test. Participants were required to state their L1 and then write down their L1 translation for the words in the test. All of the indigenous languages in Namibia have written orthographies (§1.1.2), even though some are more developed than others, and in cases where there was not an L1 translation participants used the English word. In order to control whether the targeted academic words existed in the L1, I asked lecturers at the Language Centre who were proficient in the indigenous language used to assist in assessing the words. The second short-term achievement test (STAT 2) assessed another set of selected words from the AWL and instead of making use of translations, the test items were multiple-choice and participants had to match the target word with the short definition appropriate to the context.

The third short-term achievement test (STAT 3) is similar to the VLT in format. Participants were required to match half of the words (3) to the short definitions of their meanings. Appendices F to H illustrate the three short-term achievement tests used on the second pilot study.

Results from the STATS were used to determine whether a specific vocabulary strategy taught during the explicit intervention resulted in the selected words being learnt more successfully than just reading and talking about the text, as happened in the implicit group.

The criteria for selecting the reading texts for the research study were based on register and genre and were academic in nature.

### **3.4.2.3 Intervention procedures**

The vocabulary intervention for the second pilot study lasted eight weeks. The explicit and implicit groups were allocated the same number of hours for the intervention. However, the procedures involved differed for the groups. The explicit group had 8 x 2-hour lessons, read three expository type articles and was taught three vocabulary learning strategies. In addition, 30 academic words, broken down into sets of 10 across the three periods, were selected for attention for this group during the intervention. Despite having the same number of lessons and reading the same three articles, the implicit group was required to complete three worksheets, which were discussed during the following lesson. The first worksheet assessed whether the text was understood and included multiple-choice items and questions about the content of the text (see Appendix I). The second worksheet (Appendix J) included questions about the reading text, in particular about the use of mobile phones in Mozambique. In Worksheet 3 (Appendix K) participants had to write a summary of the text, which was followed by a class discussion on drinking and driving in Namibia.

Students in the implicit group also read the three articles as well as short stories which were self-selected from the stories I provided. The following table summarises the activities included for the groups during the intervention:

**Table 3.3 Summary of vocabulary intervention**

<b>Week</b>	<b>Explicit group</b>	<b>Implicit group</b>
1	<ul style="list-style-type: none"><li>• Students complete questionnaire and receptive VLT</li></ul>	<ul style="list-style-type: none"><li>• Students complete questionnaire and receptive VLT</li></ul>
2	<ul style="list-style-type: none"><li>• Read Article 1 ‘<i>Soul Researching</i>’</li><li>• Instructed words: <i>approach, assessment, concept, context, establish, formulate, benefit,</i></li></ul>	<ul style="list-style-type: none"><li>• Read Article 1 ‘<i>Soul Researching</i>’</li><li>• Completed Worksheet 1</li><li>• Discussion and feedback</li><li>• Read short stories</li></ul>

	<p><i>individual, method, process</i></p> <ul style="list-style-type: none"> <li>Focused on: meaning and word families</li> </ul>	
3	<ul style="list-style-type: none"> <li>Taught Keyword Approach</li> </ul>	<ul style="list-style-type: none"> <li>Read short stories</li> </ul>
4	<ul style="list-style-type: none"> <li>Read Article 2 '<i>Being cool or being good: researching mobile phones in Mozambique</i>'</li> <li>Instructed words: <i>area, constitute, defined, environment, involve, issue, periodically, research, section</i></li> <li>Focused on: meaning, derivatives and inflections, but only relating to those in the selected words that change the meaning of the word due to word class changes.</li> </ul>	<ul style="list-style-type: none"> <li>Read Article 2 '<i>Being cool or being good: researching mobile phones in Mozambique</i>'</li> <li>Completed Worksheet 2</li> <li>Discussion and feedback</li> </ul>
5	<ul style="list-style-type: none"> <li>Focused on word parts</li> <li>Discussed function of selected affixes</li> </ul>	<ul style="list-style-type: none"> <li>Read short stories</li> </ul>
6	<ul style="list-style-type: none"> <li>Taught Word Part Strategy</li> </ul>	<ul style="list-style-type: none"> <li>Read short stories</li> </ul>
7	<ul style="list-style-type: none"> <li>Read Article 3 '<i>Media coverage of celebrity DUIs: teaching moments or problematic social modelling</i>'</li> <li>Instructed words: <i>analysis, consistent, evidence, legal, major, source, specific, structural, theory, administration</i></li> </ul>	<ul style="list-style-type: none"> <li>Read Article 3 '<i>Media coverage of celebrity DUIs: teaching moments or problematic social modelling</i>'</li> <li>Completed Worksheet 3</li> <li>Discussion and feedback</li> </ul>

	<ul style="list-style-type: none"> <li>Focused on: meaning and word families</li> </ul>	
8	<ul style="list-style-type: none"> <li>Taught Word Card Strategy</li> </ul>	<ul style="list-style-type: none"> <li>Read short stories</li> </ul>

### **3.4.2.4 Data collection procedures and analysis**

The questionnaire, consent form and the VLT were administered in the first week of September 2010. Seventy-one (71) participants (explicit and implicit groups) completed the questionnaire. Thereafter, all these participants wrote the vocabulary test (VLT). In addition, 29 participants wrote the same VLT as a post-test at the end of the intervention programme. The decrease in numbers could be ascribed to the voluntary nature of the interventions and a general lack of class attendance towards the end of the semester.

The consent forms were collected by the researcher after being completed by the participants. The questionnaires were also collected, numbered and data were entered using the SPSS software. The vocabulary tests (pre- and posttests) were then marked by the researcher and scores were entered on SPSS to determine the mean scores of the participants on all five word levels of the receptive VLT. Lastly, the STATS were marked and scores from the two groups were entered on SPSS to establish the effect of teaching vocabulary strategies on word recall. The next section describes the results from the second pilot study.

### **3.4.2.5 The second pilot study results**

As stated, the second pilot study was carried out to further refine and trial the assessment tools used in the main study. It also served as another trial run for the intervention procedures. Analysis of the questionnaire data showed that the revised questionnaire worked better than the previous questionnaire as the questions were unambiguous and better answered, providing more accurate responses. A summary of the analysis of some of the questionnaire data is presented in Table 3.4. The latter presents the descriptive statistics pertaining to each question.

**Table 3.4 Summary of descriptive statistics for questions**

<b>Question</b>	<b>Result</b>				
Q1: How important do you think vocabulary knowledge is in being proficient in English?	<b>Very important</b>  94.4%	<b>Not that important</b>  2.8%	<b>Don't know</b>  2.8%		
Q2: How do you feel about your knowledge of words in English?	<b>Know 5000 words</b>  7%	<b>Know between 3000 &amp; 5000 words</b>  24%	<b>Know approximately 2000 words</b>  6%	<b>Know enough words</b>  14%	<b>Don't know enough words</b>  41%
Q4: In which of the following English skills do you experience difficulties when using words?	<b>Speaking</b>  47%	<b>Writing</b>  34%	<b>None</b>  19%		
Q5: In which of the following English skills do you experience difficulties when understanding words?	<b>Listening</b>  30%	<b>Reading</b>  48%	<b>None</b>  21%		
Q6: Do you have a vocabulary storage system, i.e. a way that you record words for later use?	<b>Yes</b>  39%	<b>No</b>  59%			

The results showed that the majority of the participants in both groups felt that vocabulary knowledge is very important in language proficiency. Many of the participants also claimed to know between 3000 and 5000 words but far more seemed to feel that they did not know enough words. Furthermore, participants indicated that they experience more difficulties with words in speaking than in writing. They also indicated that they experience more difficulties in understanding words in reading than in listening. Results also showed that the majority of students (59%) did not make use of a vocabulary storage system. Lastly, analysis also showed that 65% of the participants claimed to be familiar with using contextual clues when they come across an unfamiliar word.

Certain trends were identified from the results of the first and second pilot studies. The first trend identified was that the majority of the participants in both pilot studies felt that vocabulary knowledge was very important in language proficiency. Secondly, many participants were of the opinion that they did not know enough words (62.7% and 41% respectively). Moreover, participants experienced more difficulty understanding words in reading than in listening. This sentiment relates to the distinction between BICS and CALP because in oral interactions (listening and speaking), high frequency words are common, but in CALP discourse mid frequency and academic words are more common (Cummins 2001). If students do not read widely they will not have exposure to the words often encountered in written texts. In addition, participants in the first pilot study indicated that they had more difficulties using words when writing than speaking, whereas participants in the second pilot study experienced more difficulties using words in speaking than in writing. Another trend was that most participants in both pilot studies did not have a vocabulary storage system, which suggests that they do not go about their vocabulary development in a systematic way. Finally, the majority of the participants in both pilot studies indicated that they were familiar with guessing the meaning from context. However, this does not mean that they were effective in using this strategy, but could respond in this way because it is mentioned quite often in classrooms.

Besides piloting the questionnaire, the improved version of the VLT was also piloted. Results from the VLT provided participants' scores on the five word levels. Table 3.5 illustrates the mean scores, out of 30, for participants on the five word levels of the pre- and post-VLT.

**Table 3.5 Mean scores of the two groups on the word levels (pre- & post-VLT)**

Group	N	2000	3000	5000	10000	Academic	Total score 150
<b><i>Explicit</i></b>							
<b>Pre-VLT</b>	33	28.3 (1.425)	25.5 (2.489)	21.8 (4.235)	8.1 (4.311)	24.4 (2.948)	108.1
<b>SD</b>							
<b>Post-</b>	17	27.8 (2.270)	25.1 (2.118)	21.8 (3.026)	7.0 (4.243)	24.4 (3.280)	106.1
<b>VLT</b>							
<b>SD</b>							
<b><i>Implicit</i></b>							
<b>Pre-VLT</b>	39	27.7 (2.704)	25.1 (3.386)	20.9 (4.252)	9.1 (5.371)	25.4 (5.004)	108.2
<b>SD</b>							
<b>Post-</b>	12	29.6 (0.793)	27.8 (1.712)	23.8 (3.279)	11.8 (4.366)	28.4 (1.676)	121.4
<b>VLT</b>							
<b>SD</b>							

The results from the pre-VLT indicated that the participants in the second pilot study had good receptive word knowledge of the 2000 and 3000 word levels, but their performance dropped somewhat at the 5000 word level and fell considerably at the 10 000 word level. Scores on the academic word level also show that the explicit group did not have mastery at this level while the implicit group narrowly accomplished mastery level. To have mastery at a word level, participants needed to obtain a score of 25 out of 30.

At first glance the results from the post-VLT showed that the implicit group improved on all the word levels, whereas the explicit group scored slightly less on the 2000, 3000, 10 000 word levels. The latter group also showed no improvement on the 5000 and academic word levels. At face value, it would appear that the implicit intervention programme was more effective in developing receptive vocabulary. However, the numbers had dropped considerably during the intervention and so reliable comparisons cannot be made from group means only. It may be that the 12 students who remained (i.e. 30%) in the implicit group out of the original 39 were more committed students who were motivated to improve their reading and vocabulary proficiency. The intervention was short (8 weeks) and because it was a pilot, the focus was more on seeing how the intervention worked in the classroom (i.e. a pedagogic focus), rather than a focus on outcomes. The posttest results are problematic because of the high drop-out rate.

Despite the results being better in the receptive VLT than the productive VLT used in the first pilot study, I decided to continue using the receptive vocabulary test for the main study. Firstly, the implicit intervention involved incidental learning of words through reading, which is a common way of picking up new words throughout students' academic careers. I thought that the receptive VLT may thus be more sensitive to picking up knowledge of new words that were not yet part of students' productive repertoire. Secondly, even though it did not appear that the students had a problem with the academic words (implicit group), they still did not have the required mastery of words in the 5000 and 10 000 word levels which is very important for reading comprehension to take place without assistance from someone or a dictionary (§2.1). The main study investigated which of the interventions (explicit or implicit) were more effective in developing vocabulary knowledge.

Furthermore, the reading materials and three short-term achievement tests were piloted to ensure the pedagogic viability and practicality of the intervention itself. The reading materials trialled contained the academic words that received attention during the intervention lessons of the intervention group and the

topics in the articles (emotional intelligence and career success, mobile phone use and media coverage of celebrity DUIs) allowed for discussion during the lessons for the implicit group.

Lastly, the pilot phase determined that the two hours per week set aside for the intervention were satisfactory and established the effectiveness of the procedures included in the vocabulary programmes. Even though the participants in the two groups did not complain about the additional two hours for the intervention, there was a noticeable drop in attendance of the participants in the implicit group. This could be attributed to the fact that the implicit intervention sessions were generally run in the afternoons or that they felt that, since their sessions usually involved reading, it would not be as effective as the sessions of the explicit group who were specifically taught the words and the vocabulary strategies. The second pilot study also taught me not to have the intervention end so late in the year, before the November examinations, as this caused a visible decrease in the number of participants who completed the posttest.

The following section focuses on the main study. It describes the participants, the materials used, the procedures followed in the research process, as well the instrumentation used in the analysis of the data collected in the main research study.

### **3.5 Main study**

The main study was conducted in 2011 with two groups of first year students who became the explicit and implicit intervention groups.

The focus of the main study was to investigate the effects of two vocabulary programmes on vocabulary development and academic literacy. In addition, in order to better understand the students' vocabulary knowledge, data were also collected from pre- and post- questionnaires to examine students' attitudes about word knowledge and challenges experienced with vocabulary.

The groups received different treatments and short-term achievement tests (§3.4) were designed and used to assess word knowledge of selected words targeted for attention during the intervention. Pre- and post-vocabulary levels tests and pre- and post-tests of academic literacy levels were administered to ascertain where the first-year students were in terms of vocabulary size and academic literacy, whether the vocabulary programmes affected the various vocabulary levels and their academic literacy, and also to investigate the relationship between vocabulary knowledge and academic literacy.

The main research questions were as follows:

1. *What were the vocabulary and academic literacy levels of the first-year students who participated in the study?*
2. *In what way did the explicit and implicit vocabulary programmes have an effect on students' vocabulary development?*
3. *In what way did the explicit and implicit vocabulary programmes have an affect on students' academic literacy levels?*
4. *What was the relationship between students' vocabulary size and their academic literacy?*
5. *In what way did the explicit and implicit vocabulary programmes have an affect on students' attitudes about vocabulary?*
6. *How did the explicit vocabulary strategies affect students' word recall?*
7. *What was the relationship between students' self-assessment of their vocabulary knowledge and the means scores on the VLT?*

### **3.5.1 Research participants**

The English modules offered at the Language Centre (LC) are core modules and therefore compulsory for all first-year students. Besides the English modules, first year students are also required to register for Contemporary Social Issues (UCSI 3580) and Computer Literacy (UCLC 3509).

Registration for the English modules is determined by the English symbol that a student obtained in Grade 12. The English modules offered at the LC are:

- English for Academic Purposes (ULEA 3519)
- English Communication and Study Skills (ULCE 3419)
- English for General Communication (ULEG 2410)
- English Communication for Certificate Purposes (LCEC 1311)
- Academic Writing for Postgraduate Students (UAE 5819).

The participants in the research study were registered for the English for General Communication (ULEG 2410) module. These students obtained a D-symbol for English at the end of secondary education. In addition, students who were admitted to the university through the Mature Age Entry

Programme, irrespective of the English symbol obtained previously, also registered for ULEG. General admission criteria to undergraduate programmes at the University of Namibia (UNAM) entail a total of 25 points in five subjects, of which English must be one. A grade C or higher for English as a Second Language (ESL) for degree programmes; or a grade D or higher for ESL on the Namibia Senior Secondary Certificate (NSSC), is one of the requirements for admission. The sample also included students who obtained a D but are admitted to degree programmes because their points in five subjects exceed 40.

The participants in the research study were all registered for ULEG and attended 4 x 55-minute periods per week for the whole year. One of the main reasons I selected the ULEG students to participate in the study was because ULEG is a year course which ensured enough time in which to carry out the research study. From 2008 to 2011, I was Head of Department: Namibian and Foreign Languages which resulted in the allocation of two classes for me. One of the classes was designated as the explicit group, and the other as the implicit group. The participants were not randomly selected but were already in intact classes. I was assigned two time slots in which to teach ULEG namely, the C and D timeslots, and students who could attend the module during these time slots attended my classes. The D group (N=50) became the explicit group (EG) and the C group (N=36) became the implicit group (IG).

The whole group (N=86) was composed of 28 male (33%) and 58 female (67%) students. Thirty-five of the participants (40.7%) were younger than 20 years; 34 (39.5%) were in the 20-29 age group; 14 (16.3%) were in the 30-39 year age group; and 3 participants (3.5%) were 40 or older.

### **3.5.2 Research materials**

The following section explains the research materials used in the main study.

#### **3.5.2.1 Questionnaire to participants**

In order to determine to what degree the intervention affected the participants' attitudes about vocabulary, a pre- and post-questionnaire was administered to both student groups. The pre-questionnaire (cf. Appendix C) contained biographical questions concerning age, gender and home language in order to establish a profile of the participants. It also included yes/no questions, multiple-choice questions, open-ended and scaled questions pertaining to attitudes about vocabulary knowledge, vocabulary storage systems and vocabulary learning strategies, as explained in Section 3.4.1.2. In

addition, the post-questionnaire was given to participants in the explicit group (Appendix L) and the implicit group (Appendix M), at the end of the intervention to determine whether the programme affected their attitudes about vocabulary and the teaching programme.

Data for the post-questionnaire was collected by means of the same yes/no questions, multiple-choice questions, open-ended and scaled questions as were in the pre-questionnaire. In other words, it included questions pertaining to attitudes about vocabulary knowledge, vocabulary storage systems and vocabulary learning strategies. In addition to these, questions in the post-questionnaire investigated how participants feel about their knowledge of words in English after completing the programme. Participants' attitudes to statements about word knowledge were elicited by means of scaled questions based on the Likert scale, to determine whether the programme affected their attitudes, as well as participants' views about the teaching programme.

The responses of the participants to the following questions in the pre- questionnaire and post-questionnaire were compared to establish how the programme affected their attitudes about vocabulary:

- importance of vocabulary for English proficiency;
- participants' own knowledge of words;
- attitudes to statements;
- keeping a vocabulary storage system; and
- familiarity with vocabulary strategies.

### **3.5.2.2 Vocabulary Levels Test**

To ascertain the participants' receptive vocabulary size, the improved version of Nation's (1990) receptive vocabulary levels Tests (VLT) devised by Schmitt, Schmitt and Clapham (2001), was used in the research study.

To recap, the test contains a sample of 36 words and 30 definitions for each of the five frequency levels (Schmitt, Schmitt & Clapham 2001). Participants were required to match half of the words (3) to the short definitions of their meanings. Appendix E provides the questions from the range of levels in the VLT used in the study.

The VLT was used as a pre and post-test to assess the vocabulary size of the participants in the research study, and to determine whether the scores on each frequency level were affected by the vocabulary

programme. It was decided that the 10-week intervention period would be long enough to minimize memory effects between the pre- and posttests.

### **3.5.2.3 Short-term achievement tests**

In order to determine whether the vocabulary strategies that were taught to the explicit group were useful in recalling the target words, short-term achievement tests were designed, as explained in Section 3.4.2.2. An additional test was designed because the main study was longer than the second pilot study (Appendix N). The fourth short-term achievement test (STAT 4) assessed participants' receptive knowledge of the last ten selected words. They were required to match the word with its meaning, given in context, by choosing the appropriate letter.

In addition to testing knowledge of the target words, the mean scores for the STATS of both the explicit and implicit groups were correlated to determine whether there were significant differences.

### **3.5.2.4 Test of Academic Literacy Levels**

Since there are no standardised tests for assessing academic literacy at the Language Centre, the Test of Academic Literacy Levels (TALL) was used to determine participants' academic literacy levels. The test also assesses the extent to which the student is at risk of academic failure.

Since students' [lack of] academic literacy is considered to be an important contributing factor to their lack of performance and success at university (Van Rensburg & Weideman, 2002; see also Cliff et al. 2003, Visser & Hanslo, 2005), the assessment thereof is intended to reveal the extent to which the student is at risk (Van der Slik & Weideman 2008, 364).

The TALL measures academic literacy according to the test designers' definition of what it means to be academically literate. They consider students to be academically literate if students are able to:

- understand a range of academic vocabulary in context;
- interpret and use metaphor and idiom, and perceive connotation, word play and ambiguity;
- understand relations between different parts of a text, be aware of the logical development of an academic text, via introductions to conclusions,

and know how to use language that serves to make the different parts of a text hang together;

- interpret different kinds of text type (genre), and show sensitivity for the meanings that they convey, and the audience that they are aimed at; interpret, use and produce information presented in graphic or visual format;
- make distinctions between essential and non-essential information, fact and opinion, propositions and arguments; distinguish between cause and effect, classify, categorise and handle data that make comparisons;
- see sequence and order, do simple numerical estimations and computations that are relevant to academic information, that allow comparisons to be made, and can be applied for the purposes of an argument;
- know what counts as evidence for an argument, extrapolate from information by making inferences or its implications to other cases than the one at hand;
- understand the communicative function of various ways of expression in academic language; and
- make meaning beyond the level of the sentence (Weideman 2006, 74-75).

The results of the TALL categorise participants in terms of their academic literacy level namely, extremely high risk, high risk, at risk, low risk and low to no risk (Van der Slik & Weideman 2008). The TALL is used as a placement test at several South African universities namely, North-West University (Potchefstroom and Vanderbijl campuses), the University of Pretoria and the University of Stellenbosch (Van der Slik & Weideman 2008). The student's level would then determine the language course to be taken. In the research study the TALL was used to determine participants' academic level before and after the teaching programme.

The TALL consist of items distributed over seven sub-tests:

- Section 1: Scrambled text
- Section 2: Knowledge of academic vocabulary
- Section 3: Interpreting graphs and visual information

- Section 4: Text types
  - Section 5: Understanding texts
  - Section 6: Text editing
  - Section 7: Writing
- (Weideman & Van der Slik 2008).

According to the designers, the reliability, measured in terms of Cronbach's alpha, is above 0.92 (Weideman 2012a).

### **3.5.2.5      Reading materials for the intervention groups**

The study investigated the effects of a vocabulary teaching programme on vocabulary development as well as academic literacy levels. In addition, the study examined the effects of a more explicit approach to the development of students' vocabulary and whether there were significant differences in the quantitative data from the two groups namely, the explicit and implicit groups.

These two groups received different vocabulary teaching treatments. The first entailed explicit attention to 40 academic words chosen and presented in four different lessons (explicit group). Ten target words were presented per lesson. The words were presented in context, i.e. the words were found in the reading material. The implicit group, on the other hand, read the same reading materials containing the chosen words but no explicit attention was paid to these words. The rationale was that the words would be learned incidentally by reading the materials, completing worksheets (described in §3.4.2.3) and discussing the text. An additional worksheet was designed (Appendix O) which included a class discussion of the social media revolution, which was followed by an ad hoc debate about the advantages and disadvantages of social media (the topic of one of the reading articles).

I looked for suitable academic texts which contained the chosen target words, and had to ensure that the ten words selected for each session were present in the same text.

The following table illustrates the articles (cf. Appendix P) used for the main study, the total number of running words the article consists of, as well as the number of academic words present in the text. In order to determine the number of the academic words in the texts, the AWL was imported into a data base. The texts were word documents and the software used the AWL database to conduct a search of the document to identify and determine the academic words in the text. In addition to these, participants in the implicit group read short stories which I provided.

**Table 3.6 Summary of articles used in the research study**

Name of article	Total number of running words	Number of academic words in the article
<i>Soul Researching</i> by Vic Dulwicks & Malcolm Higgs (P1)	932	130 (13.9%)
<i>Being cool or being good: researching mobile phones in Mozambique</i> by Julie Soleil Archambault (P2)	4822	293 (6.07%)
<i>Media coverage of celebrity DUIs: Teachable Moments or Problematic Social Modelling</i> by Smith, Twum and Gielen (P3)	1942	196 (10%)
<i>Social Media Revolution: Exploring the Impact on Journalism and News Media Organizations</i> by Ruth Harper (P4)	4184	387 (9.2%)

### 3.5.2.6 Intervention procedures

The research study commenced during the third week in May 2011 (Week 1) and ended in October 2011 (Week 11), i.e. it lasted for a period of five months. The vocabulary intervention was voluntary and the students were not expected to attend it as part of ULEG. Even so, attendance registers were kept for each group to monitor how well the volunteer programme was attended. Participants in the explicit group (EG) completed the consent form and questionnaire during the first hour of the lesson and the VLT during the remainder of the lesson (60 minutes) on 23 May 2011. The implicit group (IG) completed the consent form and the pre-questionnaire during the first hour of the lesson and the VLT during the last hour on 25 May 2011. The TALL was written by all participants ( $N = 90$ ) on the 6<sup>th</sup> of June 2011. All the participants wrote in the same venue and were supervised during the 55 minutes by a student assistant and myself.

There were 11 two-hour sessions in all, spread across 11 weeks.

### **3.5.2.6.1    Explicit group**

This section describes the procedures and strategies pertaining to the vocabulary programme designed for the explicit group.

- **Week 1:** On 23 May 2011, the first two hour session took place with the explicit group. Participants completed the consent form and the pre-questionnaire. They also wrote the pre-VLT and the pre-TALL.
- **Week 2:** For the second session participants were expected to have a file and examination pad or a notebook in which to write all the notes and words dealt with during the sessions. Participants were required to read the first article (*Soul Researching* by Vic Dulwicks & Malcolm Higgs), and highlight the ten selected academic words (*approach, assess, benefit, concept, context, formulate, individual, establish, method, process*). Thereafter, I explained the different kinds of clues that can be used for guessing. Participants had to guess the meaning of each word using the context in which the word appeared. During the session the meaning of each target word was discussed, i.e. defining its meaning as used in the context of the article. Participants also had to identify each word's family members. I explained this to them and gave them one member of each family. Participants then had to come up with the rest. These were written on the board and the participants wrote them down, as well as all the members of the other word families. For example, *approach* is the head word for its word family and its members are *approachable, approached, approaches, approaching, approachable* and *unapproachable*. Participants were then required to find a word in their L1 that has the same meaning as the selected words, and write these down in their notebooks for future reference.
- **Week 3:** For the third session participants had to show their L1 translations of the ten academic words. Thereafter, participants were taught the Keyword Approach (described in §2.6.4) and two examples were used to explain this approach to the participants. Participants were then required to apply the same procedure to the rest of the nine words identified in the first article. Participants were allowed to work in pairs and, as I was their lecturer, they could ask questions or request further assistance. They also either read the article again or referred to it again. Participants had to learn the words using the Keyword Approach. They wrote the first short-term achievement test (STAT 1) during the beginning of the last ULEG lesson of the week, i.e. during their Friday lessons which were not part of the explicit vocabulary lesson.

- **Week 4:** During this week participants received the second article (*Being cool or being good: researching mobile phones in Mozambique* by Julie Soleil Archambault) and once again were required to highlight or underline the ten selected words (*area, constitutive, defined, environment, income, involve, issue, periodically, research, section*). I read the article aloud to the group first and then wrote the words on the board. The participants then read silently and highlighted the words. I then applied a deductive approach and explained the meanings of the words. Thereafter, in pairs, they checked whether all the words were highlighted and were then expected to write down as many derivations and inflections of each of the selected words as possible with their partner. They wrote the words and their derivatives and inflections in their English notebooks and I checked them in the class feedback session.
- **Week 5:** During the first part of the lesson the words were taught, specifically looking at each word's meaning and part of speech (word class). The words looked at were those dealt with in Week 4. Derivatives and inflections of the words were identified. For the last part of the session participants were asked to identify the affixes present in the word list (displayed on the board and written in their notebooks). Once again I explained the term beforehand. Participants (in groups of 3 or 4) had to discuss the function of each of the nine affixes identified (*un-, re-, -tion, -al, -able, -ment, -ist, -ly, -ive*). These were identified from the word list from Week 4.
- **Week 6:** This session focused solely on the Word Part Strategy (described in §2.5.2). Firstly, words were broken up into parts and each affix identified during the preceding lesson was discussed. For example, the prefix *re-* (again) is widely used with verbs and related nouns, adjectives and adverbs, e.g. *redefine, redecoration, reassuring*. Participants were asked to study the prefixes and suffixes and warned that they would be given a test on this in the next lesson (Friday's lesson).
- **Week 7:** During this week participants received the third article namely, *Media Coverage of Celebrity DUIs: Teachable Moments or Problematic Social Modelling?* by Smith, Twum and Gielen. While I read the article aloud to the group, participants had to underline or highlight the ten selected words (*analysis, consistent, evidence, legal, major, source, specific, structural, theory, administration*) as they come across them during the reading. After the article was read, each word was looked at and participants had to guess the meaning of each using the context. Examples of guessing word meaning from context were given to the participants beforehand. After the discussion I displayed a placard of each word and its family members on the one side,

while on the reverse side the definition of the word was displayed. The participants wrote down the selected words, the other words in the word family and the definition of each in their notebooks for future reference.

- **Week 8:** This week entailed teaching the participants about the Word Card Strategy. This strategy involves making a card and writing the word on one side and the meaning of the word on the reverse side. Participants used the words that received attention during Week 7. I emphasised that the primary function of this strategy was to use the cards so that they get into the habit of looking at the words and definitions in order to store them effectively. I also told participants that, in my experience, the match box method (Appendix Q) works best for students. I showed them an example of the box which contained a set of 10 cards illustrating ten academic words and their meanings. The participants were each given a match box, paper and scissors and had to make their own match box. Participants were asked to use this strategy to learn the ten selected academic words.
- **Week 9:** In this week, participants received and read the fourth article (*The Social Media Revolution: Exploring the Impact on Journalism and News Media Organizations* by Ruth Harper). Participants were required to read it again, taking turns to underline or highlight the ten selected academic words (*available, data, distribute, factor, occur, percent, require, respond, role, similar*). In pairs, participants had to guess the meaning of each word using the context to prompt them. In addition, participants had to write down the members related to each word in their notebooks.
- **Week 10:** The next session entailed teaching participants another vocabulary learning strategy namely, using dictionaries (described in §2.5.4). They were asked to bring their own dictionaries and dictionaries from the Language Centre Writing Unit were also available for those who did not have one. The dictionary was used for explicit studying of the word. I briefly explained alphabetic sequence and discussed some dictionary conventions. I did not go into a lot of detail because dictionary work was covered at the beginning of the year (Unit 2 of the ULEG study guide). Participants were required to look up the ten selected words and confirm their guesses from context (comprehension). Thereafter, participants had to note down (in their file or notebook) each word's spelling, pronunciation and meanings. Working with the dictionaries allowed the participants to manipulate the words and spend time on each one.

- **Week 11:** during the last session the participants in the explicit group wrote the post-VLT, the post-TALL and completed the post-questionnaire.

### **3.5.2.6.2 Implicit group**

The following section describes the procedures involved in the teaching programme with the implicit group.

- **Week 1:** The implicit group commenced with the intervention programme on 1 June 2011. Participants completed the consent form and the pre-questionnaire. They also wrote the pre-VLT and the pre-TALL.
- **Week 2:** During the second session, participants ( $N = 41$ ) were required to read the first article (*Soul Researching* by Vic Dulwicks & Malcolm Higgs) and completed the worksheet (Appendix I). The latter consisted of questions about the main ideas in the article, the purpose of the article, the register used in the article, as well as contextual questions on the content of the article. The participants did most of the talking and I guided the discussion. For the last part of the session, participants silently read self-selected short stories of fiction. I provided files containing short stories. I was present throughout the session and monitored the reading activity. Participants were asked to read the article again and subsequently wrote their first short-term achievement test (STAT 1).
- **Week 3:** During the session participants in this group were required to choose a story from the story file and read. Once a story had been read, the participant had to select another one and read silently. Participants had to read the stories for the entire duration of the session.
- **Week 4:** In the session, participants were given the second article (*Being cool or being good: researching mobile phones in Mozambique* by Julie Soleil Archambault). They silently read the article for the first hour and then answered the questions in Worksheet 2 (Appendix J). The latter consisted of questions about the content of the article and required an explanation of phrases taken from the article. This activity was done in groups of three or four. I facilitated the session while the participants negotiated meaning and talked about the article. At this time, I became aware that some participants had a problem with the second hour of the session due to clashes with other modules. Participants in the implicit group were advised to attend the second hour at a later time (10:30) if they were unable to attend the session at 9:30. The participants wrote the second short-term achievement test (STAT 2) at the end of the week (Friday's ULEG lesson).

- **Week 5:** Participants were required to select stories from the file and read silently for two hours. I was present the whole time and monitored the activity.
- **Week 6:** Participants were once again required to read stories selected from the file. I was present and monitored the reading activity.
- **Week 7:** Participants received the third article (*Media Coverage of Celebrity DUIs: Teachable Moments or Problematic Social Modelling?* by Smith, Twum & Gielen) and completed Worksheet 3 (Appendix K). Participants were required to read the article silently and summarise it. This activity was followed by a class discussion on drinking and driving in Namibia. STAT 3 was written at the end of the week.
- **Week 8:** In this session participants silently read stories for the duration of the session. I was present throughout and monitored their reading.
- **Week 9:** Participants in the implicit group received the fourth article (*The Social Media Revolution: Exploring the Impact on Journalism and News Media Organizations* by Ruth Harper) and completed Worksheet 4 (Appendix O). The latter contained questions which guided the class discussion about the social media revolution, and the debate on the advantages and disadvantages of social media. The discussion was dominated by the participants and I facilitated the session. Participants were instructed to read the article again and wrote STAT 4 at the end of the week.
- **Week 10:** During the session participants had to read the short stories from the file. I monitored the reading activity.
- **Week 11:** Participants in the implicit group wrote the post-VLT, post-TALL and completed the post-questionnaire.

Table 3.7 gives a synopsis of the 11 week vocabulary programme for the explicit and implicit groups.

**Table 3.7 Synopsis of vocabulary teaching programme**

Week	Explicit group	Implicit group
1	<ul style="list-style-type: none"> <li>• Participants completed the consent form and pre-questionnaire</li> <li>• Participants wrote pre-VLT and pre-TALL</li> </ul>	<ul style="list-style-type: none"> <li>• Participants completed the consent form and pre-questionnaire</li> </ul>

		<ul style="list-style-type: none"> <li>• Participants wrote pre-VLT and pre-TALL</li> </ul>
2	<ul style="list-style-type: none"> <li>• Read Article 1</li> <li>• Instructed words: <i>approach, assess, benefit, concept, context, formulate, individual, establish, method, process</i></li> <li>• Focused on: meaning and word families</li> </ul>	<ul style="list-style-type: none"> <li>• Read Article 1</li> <li>• Completed Worksheet 1</li> <li>• Read short stories</li> <li>• Wrote STAT 1</li> </ul>
3	<ul style="list-style-type: none"> <li>• Taught Keyword Approach</li> <li>• Wrote STAT 1</li> </ul>	<ul style="list-style-type: none"> <li>• Read short stories (fiction)</li> </ul>
4	<ul style="list-style-type: none"> <li>• Read Article 2</li> <li>• Instructed words: <i>area, constitutive, defined, environment, income, involve, issue, periodically, research, section</i></li> <li>• Focused on: meaning, derivatives and inflections</li> </ul>	<ul style="list-style-type: none"> <li>• Read Article 2</li> <li>• Completed Worksheet 2</li> <li>• Wrote STAT 2</li> </ul>
5	<ul style="list-style-type: none"> <li>• Word parts</li> <li>• Function of selected affixes</li> </ul>	<ul style="list-style-type: none"> <li>• Read short stories (fiction)</li> </ul>
6	<ul style="list-style-type: none"> <li>• Taught Word Part Strategy</li> <li>• Wrote STAT 2</li> </ul>	<ul style="list-style-type: none"> <li>• Read short stories (fiction)</li> </ul>
7	<ul style="list-style-type: none"> <li>• Read Article 3</li> <li>• Instructed words: <i>analysis, consistent, evidence, legal, major, source, specific, structural, theory, administration</i></li> <li>• Focused on meaning and word families</li> </ul>	<ul style="list-style-type: none"> <li>• Read Article 3</li> <li>• Completed Worksheet 3</li> <li>• Wrote STAT 3</li> </ul>
8	<ul style="list-style-type: none"> <li>• Taught Word Card Strategy</li> <li>• Wrote STAT 3</li> </ul>	<ul style="list-style-type: none"> <li>• Read short stories (fiction)</li> </ul>
9	<ul style="list-style-type: none"> <li>• Read Article 4</li> <li>• Instructed words: <i>available, data, distribute, factor, occur, percent, require, respond, role, similar</i></li> </ul>	<ul style="list-style-type: none"> <li>• Read Article 4</li> <li>• Completed Worksheet 4</li> <li>• Wrote STAT 4</li> </ul>

	<ul style="list-style-type: none"> <li>• Focused on meaning and word families</li> </ul>	
10	<ul style="list-style-type: none"> <li>• Taught using dictionaries as a vocabulary learning strategy</li> <li>• Wrote STAT 4</li> </ul>	<ul style="list-style-type: none"> <li>• Read short stories (fiction)</li> </ul>
11	<ul style="list-style-type: none"> <li>• Completed post-questionnaire</li> <li>• Wrote post-VLT and post-TALL</li> </ul>	<ul style="list-style-type: none"> <li>• Completed post-questionnaire</li> <li>• Wrote post-VLT and post-TALL</li> </ul>

### 3.5.2.7 Data collection procedures

This section reports on the procedures followed in collecting data for the main study.

#### *The pre-questionnaire and post-questionnaire*

Participants (N=86) completed the pre-questionnaire during the ULEG period in class. I administered and collected the questionnaires when participants were done. The questionnaires were numbered and data were entered into the SPSS version 20.

The post-questionnaire was administered to participants (N=59) at the end of the teaching programme. The dropout rate could be attributed to the voluntary nature of the intervention. Participants completed the questionnaires in class during the ULEG period and submitted the completed questionnaires to me. The questionnaires were numbered and data were entered into SPSS.

#### *The Vocabulary Levels Test (VLT)*

The improved version of the receptive vocabulary levels test (Schmitt, Schmitt & Clapham 2001) was used as the pre-VLT and was written by the participants (N=92). I invigilated for the 60 minute duration and collected the tests after participants had completed the tests. I marked and scored the tests. The total number of marks out of thirty was indicated at the end of each word level, i.e. a mark out of thirty for the 2000, 3000, 5000, 10000 and academic word levels. I also numbered the tests and entered the data into SPSS.

#### *Short-term Achievement Tests (STAT 1-4)*

Participants in the explicit and implicit groups wrote the short-term achievement tests at the end of each phase of the programme. The four short-term achievement tests were written in class during the

intervention period. I invigilated during all the sessions and collected the tests once participants had completed the STAT. As a result of voluntary participation, discrepancies in the number of students who write the STATS are apparent. The number of participants who wrote each STAT is presented below:

- STAT 1 (N=65)
- STAT 2 (N=69)
- STAT 3 (N=62)
- STAT 4 (N=80)

I marked the STAT tests and data were entered into SPSS.

#### *The Test of Academic Literacy Levels (TALL)*

The TALL is compiled by ICELDA, who charges a fee to the person/organization administering the tests. The scripts are treated as highly confidential and couriered to the user.

The TALL was written by participants (N=63) at a scheduled time on 1 June 2011. Due to the voluntary participation in the intervention, 30 participants unfortunately declined to write the test. A student assistant and I invigilated for the duration (55 minutes) of the test. The tests were collected and I couriered the tests back to ICELDA for scoring and interpretation. The test data were mailed electronically and the interpretation included the overall percentage that each participant obtained in the test, the risk category they fell into and the recommended treatment. The following extract illustrates the test data for one participant:

Filename	Surname	Initials	Student number	Total (100)	Risk category	Recommendation
1 D1-D53_GROUP1	GXXXXX	D	22222222	39	High risk	Intensive academic literacy training required; regular visits to a reading and/or writing laboratory also recommended

The test data were entered into SPSS and descriptive and inferential statistics were used to analyse the mean scores of each group on the TALL.

The TALL was also used as a posttest and was written as such by participants (N=63) at the end of the vocabulary teaching programme.

### **3.5.2.8 Data analysis procedures**

Data from the pre- and post-questionnaire were analysed using descriptive and inferential statistics. Descriptive statistics were used to measure the participants' attitudes about vocabulary, their responses concerning questions about using a vocabulary storage system and vocabulary learning strategies in the pre- and post-questionnaire. Descriptive statistics were also used to investigate whether the intervention was useful and which of the four vocabulary strategies they found most useful. In addition, inferential statistics were used to test the correlations between some questionnaire data and the scores on the VLT.

Data from the pre- and post-VLT was analysed using descriptive and inferential statistics. Descriptive statistics were used to analyse the participants' scores on the five word levels for the pre- and post-tests. Inferential statistics were used to test the hypothesis (**H1**). The paired sample t-test was used to test for significant differences between the pre- and posttest mean scores of the explicit and implicit groups respectively to establish whether the teaching programme affected the vocabulary development of the student groups. An independent samples t-test was used to test for significant differences between the posttest VLT results of the explicit and implicit groups.

Besides using descriptive statistics to analyse the data, inferential statistics were also used to analyse the relationship between the mean scores of the pre-TALL and post-TALL to determine the effect of the vocabulary programme on the groups. An independent samples t-test was used to test for significant differences between the explicit and implicit groups. The data were further analysed by means of inferential analysis as Pearson's Product-Moment correlation was used to establish whether there was a relationship between scores on the vocabulary levels and academic literacy levels.

Analysis of the data from the STATS was done using descriptive and inferential statistics. An independent samples t- test was used to test for significant differences between the explicit and implicit groups.

## **3.6 Conclusion**

Chapter 3 explained the research approach underpinning the research study reported on. In addition, the research design and procedures involved in quasi-experimental study were described. The research questions, procedures and materials used in the two pilot studies were described, and changes to the research instruments were explained. Thereafter the main study was set out. Lastly, an outline of the data collection procedures and analysis conclude the chapter. The next chapter reports on the analysis and

interpretation of data collected from the pre- and post-questionnaires, the pre- and post-VLT, the pre- and post-TALL and the four short-term achievement tests.

# **Chapter 4**

## **4.0 Introduction**

In investigating the relationship between vocabulary and academic literacy, and the effects of a vocabulary intervention programme on first-year students' vocabulary development, academic literacy and attitudes to their vocabulary knowledge, Chapter 4 reports on the findings of the main study conducted in 2011. The results for each research question and hypothesis are presented first, followed by a discussion of the results.

## **4.1 The participants**

As discussed in Chapter 3, the data reported on were collected from two groups of first-year students who were assigned to an explicit group and an implicit group, and their vocabulary and academic performance compared. There were initially 59 participants in the explicit group (EG) and 50 participants in the implicit group (IG). Due to attrition, the 10-week intervention ended with 32 participants in the EG and 31 in the IG respectively.

### **4.1.1 Biographic information on participants**

Participants' biographical information was collected from the pre-questionnaire. Table 4.1 shows the variation in age for each group (explicit and implicit) and the participants as a whole.

**Table 4.1 Age variation of explicit and implicit groups**

	<b>Explicit group</b>	<b>Implicit group</b>	<b>Both groups</b>
<b>N</b>	50	36	86
<b>Younger than 20</b>	16 (32%)	19 (53%)	35 (41%)
<b>Between 20 – 29</b>	22 (44%)	12 (33%)	34 (39%)
<b>Between 30 – 39</b>	9 (18%)	5 (14%)	14 (16%)
<b>Between 40 – 49</b>	3 (6%)		3 (4%)

The study also showed a gender disparity between the groups. The majority of participants in both groups were female. In the explicit group 68% of the participants were female and 32% were male,

while 66.7% of the participants in the implicit group were female and 33.3% male. This gender disparity, which could also be due to the courses that they are studying, is also noticeable in many other contexts in the country.

In terms of language distribution, the majority of the participants (62.4%) in the study spoke Oshiwambo as L1, including the Oshikwanyama and Oshindonga dialects. Table 4.2 shows the language distribution across the two intervention groups.

**Table 4.2 Language distribution of L1**

	No. of participants	Percentage
<b>Oshiwambo</b>	53	62.4
<b>Lozi rank order</b>	8	9.4
<b>Subia</b>	8	9.4
<b>Otjiherero</b>	7	8.2
<b>Afrikaans</b>	3	3.5
<b>Khoekhoegowab</b>	2	2.4
<b>Portuguese</b>	2	2.4
<b>English</b>	1	1.2
<b>Tswana</b>	1	1.2

## **4.2 The vocabulary and academic literacy levels of the participants**

The first research question investigated the vocabulary and academic literacy of the participants who participated at the start of the vocabulary intervention. The receptive vocabulary levels test (VLT) was used to determine the vocabulary levels of the participants (cf. §3.5.2.2). The reliability index of the test, measured in terms of Cronbach's alpha, was .704, which is considered acceptable.

In order to establish equivalence of variance between the explicit and implicit groups at the start of the intervention, Levene's test of homogeneity was applied to the pretest vocabulary results of the two groups. Results indicated that there were no significant differences between the groups on each of the levels, as shown in Table 4.3 below. The *p* values are all more than 0.05 which shows that the groups were homogeneous at the outset of the intervention.

**Table 4.3 Levene's Test for homogeneity**

Word Level	Sig.	Df
<b>2000 word level</b>	0.856	90
<b>3000 word level</b>	0.093	90

<b>5000 word level</b>	0.388	90
<b>10000 word level</b>	0.270	90
<b>Academic word level</b>	0.580	90

Table 4.4 on the following page presents the descriptive statistics of the participants' scores on the five word levels tested before and after the intervention. Each level was scored out of 30 and the standard deviation is reported on in brackets next to the mean. The last two rows indicate the total mean scores for the entire vocabulary test. The performance of the students at the 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles is also given.

As mentioned previously, mastery of a level is taken to be performance of 25 out of 30 (83,3%) (cf. §3.4.2.5). In Table 4.4, it can be seen that mastery was accomplished at the 2000 and 3000 word levels of the majority of the participants in both groups. Even though the mean score of the participants in the explicit group at the 3000 word level is 25.2, 75% of the participants scored less than 25. In other words, only 25% of the participants scored 25 or more in this level and had mastery of this group of words. Furthermore, the majority of participants in the explicit (mean = 22.2) and the implicit (mean = 20.8) groups did not achieve mastery at the 5000 word level. Not unexpectedly for L2 students, mastery was also not obtained by the majority of the participants (explicit and implicit) at the 10 000 word level. The percentile scores at the academic word level, in particular, indicated that 50% of the participants in the groups scored less than 25 (implicit) and 24 (explicit). The results of the receptive VLT were somewhat surprising, as the students did better than what I had expected. This issue will be taken up for discussion again in Section 4.9.1.

The research question also investigated the academic literacy levels of the students who participated in the study. The tests of academic literacy levels (TALL) was used (as discussed in §3.5.2.4). The TALL had an average reliability score, measured in terms of Cronbach's alpha, of above 0.92 (§3.2.2). It was used as a pre- and posttest.

Levene's test was applied to the mean scores of the pre-TALL to ensure the homogeneity of the groups. Results indicate that there was no significant difference between the groups ( $p = 0.144$ ;  $df = 88$ ) at the beginning of the intervention.

**Table 4.4 Vocabulary levels of groups before and after the intervention**

	N	Min	Max	Mean	25th	50th	75th
<b>Explicit</b>							
<b>2000 pretest</b>	49	24	30	<b>27.9</b> (1.6)	27	28	29
<b>2000 posttest</b>	44	23	30	<b>28.4</b> (1.7)	27	29	30
<b>Implicit</b>							
<b>2000 pretest</b>	43	21	30	<b>28.7</b> (1.7)	28	29	30
<b>2000 posttest</b>	41	24	30	<b>28.6</b> (1.2)	28	29	29
<b>Explicit</b>							
<b>3000 pretest</b>	49	19	29	<b>25.2</b> (2.5)	24	23	25
<b>3000 posttest</b>	44	21	30	<b>26.2</b> (2.3)	25	26	28
<b>Implicit</b>							
<b>3000 pretest</b>	43	19	29	<b>25.9</b> (2.1)	25	26	27
<b>3000 posttest</b>	41	20	30	<b>21.5</b> (2.8)	20	22	23
<b>Explicit</b>							
<b>5000 pretest</b>	49	13	29	<b>22.2</b> (4.1)	20	23	25
<b>5000 posttest</b>	44	15	30	<b>22.9</b> (3.6)	20	24	25
<b>Implicit</b>							
<b>5000 pretest</b>	43	5	27	<b>20.8</b> (3.9)	19	21	24
<b>5000 posttest</b>	41	15	28	<b>21.5</b> (2.9)	20	22	23
<b>Explicit</b>							
<b>10 000 pretest</b>	49	2	23	<b>9</b> (4.1)	6	8	11.5
<b>10 000 posttest</b>	44	1	23	<b>10.2</b> (4.9)	7	9.5	13.8
<b>Implicit</b>							
<b>10 000 pretest</b>	43	2	15	<b>8.4</b> (3.3)	6	8	11
<b>10 000 posttest</b>	41	3	17	<b>9.2</b> (3.3)	6.5	10	11
<b>Explicit</b>							
<b>Academic pretest</b>	49	17	30	<b>24.5</b> (3.2)	23	24	27
<b>Academic posttest</b>	44	17	30	<b>25.3</b> (2.8)	24	25	27
<b>Implicit</b>							
<b>Academic pretest</b>	43	16	28	<b>24.3</b> (2.8)	22	25	26
<b>Academic posttest</b>	41	15	30	<b>27.7</b> (3.3)	23	25	27
<b>Explicit</b>							
<b>Total mean score pretest</b>	49	16	28	<b>21.8</b> (2.4)	20	22	24
<b>Total mean score posttest</b>	44	18	28	<b>22.6</b> (2.3)	21	23	24
<b>Implicit</b>							
<b>Total mean score pretest</b>	43	17	25	<b>21.6</b> (1.8)	20	22	23
<b>Total mean score posttest</b>	41	18	26	<b>22.1</b> (1.9)	21	22	23

According to the TALL scoring there are five categories of performance, namely Levels 1, 2, 3, 4 and 5. These levels are determined based on the cut-off point for the TALL which is about 10% below the average score and also sets the high risk level at approximately 30% of the sample tested (Van der Slik & Weideman 2008). Level 1 categorises the ‘Extremely High Risk’ group. Participants on this level obtain between 0% and 33% and it is recommended that they receive intensive academic literacy training and language development, as well as regular visits to the reading and/or writing laboratory. Level 2 refers to the ‘High Risk’ group and students on this level obtain between 34% and 58% and require intensive academic literacy training and regular visits to the reading and/or writing laboratory to reduce the risk of not completing their studies in the required time. Level 3 is classified as the ‘At Risk’ group and participants in this group obtain more than 59%. Level 4 refers to the ‘Low Risk’ group and Level 5 refers to the ‘Low to No Risk’ group. That is, students on these levels are not at a high risk of not completing their studies in the prescribed time frame of their qualification. Table 4.5 presents the descriptive statistics of the TALL categories assigned to the participants in the explicit and implicit groups, and the participants’ scores on the TALL at the start of the intervention.

**Table 4.5 Academic literacy levels and categories of groups before the intervention**

	Explicit Pre-TALL		Implicit Pre-TALL		Total score Pre-TALL	
<b>N</b>	53		37		90	
<b>Min</b>		13		8		8
<b>Max</b>		52		57		57
<b>Mean</b>		31		35.9		33
<b>STD</b>		8.7		10.8		11.2
<b>Extremely High Risk</b>	37/53	69.8%	14/37	32.3%	51/90	56.7%
<b>High Risk</b>	16/53	30.2%	23/37	62.2%	39/90	43.3%
<b>At Risk</b>	-		-		-	

Results indicated that all the students were categorized in either the ‘extremely high risk’ (Level 1) or ‘high risk’ (Level 2) groups at the beginning of the intervention. The majority of the participants in the explicit group were classified at Level 1, while the majority in the implicit group was placed at Level 2.

The mean scores of the explicit (31) and the implicit (35.9) groups showed that the participants did not have strong academic literacy skills.

#### **4.3 The effect of the explicit and implicit vocabulary programmes on vocabulary development**

The second research question investigated the effect of the explicit and implicit vocabulary programmes on students' vocabulary development. The corresponding hypothesis (**H1**) was formulated as: *There are significant differences in the mean scores of the pre- and post-VLT of the explicit and implicit groups.*

The participants' vocabulary levels were tested at the start of the vocabulary programme (§4.2) and again at the end of the intervention in order to determine what their vocabulary levels were and to establish whether the programme had an effect on the vocabulary levels of the participants.

As can be seen from Table 4.4, the explicit group showed slight gains at all levels from the pre- to posttest time, while the implicit group showed more uneven performance, with slight gains at three of the levels, remained more or less the same at the 2000 word level but showed a posttest drop at the 3000 word level.

**Table 4.6 Vocabulary levels of the groups after the intervention**

<b>Group</b>	<b>Pre-VLT</b>		<b>Post-VLT</b>	
	Explicit	Implicit	Explicit	Implicit
<b>N</b>	49	43	44	41
<b>Mean</b>	21.8	21.6	22.6	22.1
<b>Standard deviation</b>	2.4	1.8	2.3	1.9

For the first step in the analysis, a paired samples t-test was used to see whether the vocabulary programme (treatment) had a significant effect on the participants' overall vocabulary size, i.e. the total mean scores of the VLT (pre and post). Due to attrition, only 85 students are included in the paired and independent sample t-tests.

According to the paired samples t-test results, there was a significant difference in the mean scores of the pre- and post-VLT ( $t = 2.677$ ;  $p = 0.011$ ) for the explicit group. However, there was no significant difference in the mean scores of the pre-post scores for the implicit group ( $t = 0.147$ ;  $p = 0.508$ ).

In addition, independent samples t-tests were conducted to see whether there were significant differences between the posttest vocabulary scores at each of the five levels of the explicit and implicit groups. The results of the two groups are presented in Table 4.7.

**Table 4.7 The independent samples t-test statistics for the two groups**

Word level	t-value	Df	p value
2000	-.797	78.550	.428
3000	-.278	83	.781
5000	2.005	20.219	.048*
10 000	1.032	74.747	.305
Academic	.847	83	.400

\* shows significant difference

The results indicated that there was a significant difference between the posttest vocabulary scores of the groups in the 5000 word level ( $t=20.219$ ;  $p=0.048$ ). There were, however, no significant differences between the groups in the other four levels. In sum, although the explicit group showed significant differences between the pre- and posttest performances, they only differed significantly from the implicit group at the 5000 word level in the posttest.

#### **4.4 The effect of the explicit and implicit vocabulary programmes on academic literacy**

The third research question sought to find out in what way the vocabulary programme affected the academic literacy levels of the participants in the explicit and the implicit groups. The corresponding

hypothesis (**H2**) was formulated as: *There is a significant difference in the mean scores of the pre- and post-TALL of the explicit and implicit groups.*

Participants' academic literacy levels were assessed before (in June) and after (in November) the intervention. In order to establish whether the two interventions had an effect on the academic literacy levels of the participants, the TALL was once again used as a posttest. Due to attrition, only 63 students are included in the analysis (32 from the explicit group and 31 from the implicit group). Descriptive statistics of the post-TALL (Table 4.8) are given before the results of the inferential statistics that test the hypothesis (**H2**).

**Table 4.8 Academic literacy levels and categories of groups after the intervention**

	<b>Explicit Post-TALL</b>	<b>Implicit Post-TALL</b>	<b>Total Score Post-TALL</b>	
<b>N</b>	32	31	<b>63</b>	
<b>Min</b>	13	15	<b>13</b>	
<b>Max</b>	59	58	<b>59</b>	
<b>Mean</b>	33.7	38.3	<b>35.95</b>	
<b>STD</b>	11.2	10.4	<b>10.9</b>	
<b>Extremely High Risk</b>	17/32 53%	10/31 32.2%	<b>27/63</b>	<b>42.9%</b>
<b>High Risk</b>	14/32 44%	21/31 67.7%	<b>35/63</b>	<b>55.6%</b>
<b>At Risk</b>	1/32 3%	-	<b>1/63</b>	<b>1.5%</b>

According to the posttest results, the participants were categorised on the first three levels, namely the 'Extremely High Risk', 'High Risk' and 'At Risk' groups. Despite having spent a year at university and 10 weeks in the intervention, the mean scores of the posttest showed only slight gains from the pre- to posttest time. The participants in the explicit group (mean = 33.7) and the implicit group (mean = 38.3) did not have strong academic literacy skills.

The mean scores in Table 4.5 and 4.8 also prompted me to investigate which skills in particular the participants seemed to need attention. Results from the post-TALL were used for further analysis. Table 4.9 provides the descriptive statistics of the TALL sections for the explicit (EG) and implicit (IG) groups. The total scores and percentages for the six sections are given for both groups. The totals of the sections include the entire total for the group.

**Table 4.9 Total scores for each section of the post-TALL for the explicit and implicit groups**

Section	Total score & percentage		IG	
	EG			
N	32		31	
1 Scrambled text (out of 185)	102	55.1%	108	58.4%
2 Academic vocabulary (out of 740)	196*	26.5%	252*	34.1%
3 Graphic and visual information (out of 296)	103*	34.8%	134*	45.3%
4 Text types (out of 185)	152	82.2%	112	60.5%
5 Understanding texts (out of 1702)	512*	30.1%	561*	33%
6 Grammar and text relations (out of 592)	187*	31.6%	187 *	30.6%

\*shows inadequate performance

The results showed that the participants in the groups did not perform well in 4 of the 6 sections, namely in sections 2, 3, 5, and 6. In component 2 (academic vocabulary), in particular, of the TALL the participants performed very poorly, yet they scored quite well at the academic word level in the VLT test (Table 4.4). This discrepancy in performance suggests that the receptive vocabulary levels test might not have been the best instrument to use in this context.

To test whether there were significant differences between the explicit group and the implicit group independent samples t-tests were used. Only the cases where participants wrote both tests were analysed. According to the results ( $t = -0.496$ ;  $df = 61$ ;  $p = 0.621$ ), although both groups showed slight improvements in their TALL results over time, there were no significant differences between the two groups at posttest time, so the null hypothesis cannot be rejected.

## 4.5 Vocabulary and academic literacy

The fourth research question sought to inquire whether there was a relationship between the participants' knowledge of vocabulary, specifically academic vocabulary, and their academic literacy levels. The hypothesis (**H3**) formulated from the research question was: *There is a significant relationship between mean scores of the word levels of the VLT and mean scores of the TALL.*

In order to examine the relationship between vocabulary knowledge and academic literacy, and to avoid possible covariance between the vocabulary scores in the two sets of assessments (i.e. the VLT and TALL), the total of the vocabulary component of the TALL (Q6-Q15) was subtracted from the total score of the TALL and the remaining TALL score correlated with the VLT using Pearson's  $r$  for the two groups combined. Table 4.10 presents the correlation statistics.

**Table 4.10 Correlations between the VLT and TALL for the explicit and implicit groups**

Correlation	<i>r</i>	p
<b>Post-TALL</b>		
<b>2000 posttest (n=63)</b>	0.136	0.286
<b>3000 posttest (n=56)</b>	0.156	0.252
<b>5000 posttest (n=56)</b>	0.100	0.461
<b>10000 posttest (n=56)</b>	0.140	0.303
<b>Academic posttest (n=56)</b>	0.86	0.527

Surprisingly, there were no significant relationships between the vocabulary levels of the post-VLT and the post-TALL, so the null hypothesis cannot be rejected. This issue will be taken up for discussion again in Section 4.9.3.

A Pearson's Product-Moment correlation was applied to data from the academic word level of the pre-VLT and pre-TALL, as well as data from the academic word level of the post-VLT and post-TALL for both groups. Table 4.11 presents the correlation statistics.

**Table 4.11 Correlation statistics for academic vocabulary**

<b>Correlation</b>	<b>Explicit group (n=32)</b>		<b>Implicit group (n=31)</b>	
<b>Pre-VLT and pre-TALL</b>	r = 0.216	p = 0.270	r = 0.246	p = 0.215
<b>Post-VLT and post-TALL</b>	r = 0.319	p = 0.092	r = 0.351	p = 0.062

The results indicated that there were no significant correlations between the vocabulary scores and the TALL scores within the groups. Consequently, the null hypothesis is accepted, i.e. there is no significant relationship between academic word knowledge and academic literacy.

#### **4.6 The effect of the explicit and implicit vocabulary programmes on attitudes about vocabulary**

The fifth research question sought to determine what the vocabulary attitudes of the participants were at the start of the intervention, and whether their attitudes changed over time. Specific items in the questionnaire tapped into the importance of vocabulary in English proficiency, attitudes about vocabulary (pronunciation, spelling, combining words, meanings and using words), vocabulary storage systems and vocabulary learning strategies. In addition, data from questions 15, 16, 17 and 18 of the post-questionnaires (§3.5.2.1) were analysed to ascertain to what degree the intervention affected the students' attitudes as to whether the intervention was helpful, attitudes about vocabulary development and the usefulness of the vocabulary learning strategies taught.

Table 4.12 presents the question and descriptive statistics for the first six items of the questionnaire. The figures reflect the scores of the respondents in the explicit (EG) and implicit (IG) groups who completed the pre- (Pre) and post-questionnaires (Post).

**Table 4.12 Attitudes about vocabulary**

	EG Pre	IG Pre	Total Pre	EG Post	IG Post	Total Post
<b>N</b>	50	36	<b>86</b>	31	28	<b>59</b>
<b>1. How important is vocabulary knowledge in being proficient in English?</b>						
Very important	46	34	<b>93%</b>	29	27	<b>95%</b>
Not that important	1	0	<b>1.2%</b>	0	1	<b>1.8%</b>
Other aspects more important	1	2	<b>3.5%</b>	0	0	<b>0</b>
Don't know	1		<b>1.2%</b>	1	0	<b>1.8%</b>
<b>3.1 I pronounce words correctly.</b>						
(Strongly) agree	20	4	<b>27.9%</b>	19	7	<b>44%</b>
Neutral	18	20	<b>44.1%</b>	9	21	<b>50.8%</b>
(Strongly) disagree	12	12	<b>27.9%</b>	2	0	<b>3.3%</b>
<b>3.2 I spell words correctly.</b>						
(Strongly) agree	22	6	<b>32.6%</b>	16	8	<b>43%</b>
Neutral	17	18	<b>40.7%</b>	14	18	<b>54%</b>
(Strongly) disagree	11	12	<b>26.7%</b>	0	2	<b>3%</b>
<b>3.3 I know how to combine words to form accurate sentences.</b>						
(Strongly) agree	19	8	<b>31.4%</b>	23	12	<b>59%</b>
Neutral	21	16	<b>43%</b>	6	14	<b>34%</b>
(Strongly) disagree	10	12	<b>25.6%</b>	2	2	<b>7%</b>
<b>3.4 I know the different meanings of words found in different contexts.</b>						
(Strongly) agree	9	5	<b>16.3%</b>	14	5	<b>32%</b>
Neutral	27	18	<b>52.3%</b>	16	20	<b>61%</b>
(Strongly) disagree	14	13	<b>31.4%</b>	1	3	<b>7%</b>
<b>3.5 I know how words are used together.</b>						
(Strongly) agree	16	2	<b>21%</b>	12	8	<b>34%</b>
Neutral	20	13	<b>38.3%</b>	17	16	<b>56%</b>
(Strongly) disagree	14	23	<b>40.7%</b>	2	4	<b>10%</b>

At face value the descriptive statistics in Table 4.12 seemed to indicate that the intervention had a positive effect on the attitudes of the participants regarding aspects of vocabulary. To test whether there were significant differences in the participants' responses, a Chi-square test was conducted. Table 4.13 presents the questions and chi-square results.

**Table 4.13 Selected questions and differences in responses**

Question	Chi-square value	df	p-value
<b>How important is vocabulary knowledge in English proficiency?</b>	0.153	4	0.997
<b>I pronounce words correctly.</b>	8.506	9	0.484
<b>I spell words correctly.</b>	10.013	16	0.866
<b>I know how to combine words to form accurate sentences.</b>	11.008	16	0.809
<b>I know the different meanings of words found in different contexts.</b>	11.763	12	0.465
<b>I know how words are used together.</b>	9.725	12	0.640

Even though it appeared that the intervention had a positive effect on the participants' attitudes, there were no significant differences in the responses to the selected questions of the pre- and post-questionnaires. As a result the null hypothesis cannot be rejected.

I also wanted to find out whether all the participants used a vocabulary storage system (VSS) in which they record or store words, and whether the intervention affected this. Before the intervention started 32% of the participants claimed to use a VSS, whereas after the intervention 66% of the participants claimed to use a VSS. Table 4.14 presents the question and descriptive statistics of the responses pertaining to questions about the VSS.

**Table 4.14 Students' views (both groups) of their vocabulary storage system**

	<b>Pre – Questionnaire (n=26)</b>	<b>Post – Questionnaire (n=40)</b>
<b>8. What form does your VSS take?</b>		
Notebook	12 (46%)	27 (37.5%)
Index cards	1 (3.8%)	3 (7.5%)
Loose pages	4 (15.8%)	7 (7.5%)
Writing in the margin of book	6 (23%)	2 (5%)
Other / memory	3 (11.6%)	1 (2.5%)
<b>9. How do you organise words in your VSS?</b>		
Alphabetically	1 (3.8%)	9 (22.5%)
According to meanings	-	-
As they come up in class	13 (50%)	20 (50%)
According to parts of speech	1 (3.8%)	2 (5%)
I don't organise words	10 (38.4%)	9 (22.5%)
A combination of the above	1 (3.8%)	-
<b>10. What information is noted in your VSS?</b>		
Just the word is written down	4 (15.3%)	1 (2.5%)
The words and its meaning	15 (57.7%)	35
The word and its translation	1 (3.8%)	1 (2.5%)
The pronunciation of the word	-	-
Synonyms of the word	-	-
Examples of the word in a sentence	1 (3.8%)	1 (2.5%)
Word and parts of speech	1 (3.8%)	2 (5%)
None of the above	-	-
A combination of the above	4 (15.3%)	-
<b>11. How do you use your VSS?</b>		
For learning new words by heart / rote learn	17 (65.4%)	20 (50%)
For reference	3 (11.6%)	5 (12.5%)
Like a personal dictionary	5 (19.2%)	15 (37.5%)
Other	1 (3.8%)	-
<b>12. How often do you use your VSS?</b>		
Very often (every day)	7 (27%)	5 (12.5%)
Often (weekly)	7 (27%)	21 (52.5%)
Once in a while (once a month)	7 (27%)	8 (20%)
Seldom	3 (11.6%)	5 (12.5%)
I forgot to consult it	2 (8%)	1 (2.5%)

It appeared that both interventions had positive effects (Table 4.15) on the participants' vocabulary storage systems (VSS). For example, more participants used notebooks after the intervention. This issue will be taken up again in Chapter 5 (§5.1). Moreover, the results showed that the participants were more active in class as there was an increase in organizing words as new words came up in class, and there were increases in how they used their VSS. More participants also wrote down the words and their meanings at the end of the intervention than before. They also claimed to use their VSS more frequently. In order to determine whether there were significant differences in the participants' responses to the

questions dealing with the VSS, a Chi-square test was used. Table 4.15 presents the results of the Chi-square test.

**Table 4.15 Differences in participants' responses to Q8-12**

Question	Chi-square value	df	p-value
<b>What form does your VSS take?</b>	22.875	24	0.527
<b>How do you organise words in your VSS?</b>	5.394	8	0.715
<b>What information is noted in your VSS?</b>	18.073	21	0.644
<b>How do you use your VSS?</b>	5.600	6	0.469
<b>How often do you use your VSS?</b>	9.333	12	0.674

Despite the fact that, at first glance, it appeared that the intervention programmes had positive effects on participants' vocabulary storage system usage, there were no significant differences in the answers to Q8-12 before and after the intervention. Consequently, there were no significant differences in the responses about the VSS in the pre- and post-questionnaires.

Prior to the start of the vocabulary teaching programme, participants were asked with which vocabulary learning strategies they were familiar and which strategy or strategies they used when they came across an unfamiliar word. Additionally, they were asked about their familiarity with vocabulary learning strategies and which ones they used to find the meaning of words in the post-questionnaire. The descriptive statistics from pre- and post-questionnaires for both groups are presented in Table 4.16.

**Table 4.16 Students' familiarity and use of vocabulary strategies**

<b>Question</b>	<b>Pre-questionnaire</b>	<b>Post-questionnaire</b>
<b>N</b>	<b>85</b>	<b>59</b>
<b>With which of the vocabulary strategies are you familiar?</b>		
Contextual clues	18	10
Word morphology	1	2
Mnemonic devices	-	3
Loci	1	-
Paired associates	1	1
Key words	3	2
Word lists	7	1
None of the above	2	-
Combination of 2 strategies	21	10
Combination of 3 strategies	22	15
Combination of 4 strategies	6	10
Combination of 5 strategies	2	5
All the strategies	1	-
<b>N</b>	<b>86</b>	<b>59</b>
<b>Which strategies do you use to find the meaning of the word?</b>		
Guess the meaning using contextual clues	18	10
Guess meaning by using word morphology	-	3
Look up word in dictionary	16	8
Look at glossary	2	1
Skip / ignore the word and continue reading	7	1
Combination of 2 strategies	19	19
Combination of 3 strategies	28	13
Combination of 4 strategies	5	4
Combination of 5 strategies	1	-
All the strategies	-	-

In order to find out whether the intervention had an effect on the participants' familiarity with vocabulary learning strategies and which strategies they used to find the meaning of words, a Chi-square statistical test was used. These results are presented in Table 4.17.

**Table 4.17 Differences in responses to Q13 & Q14**

Question	Chi-square value	df	p-value
<b>Q13 With which of the vocabulary strategies are you familiar?</b>	1109.870	986	0.004
<b>Q14 Which strategies do you use to find the meaning of the word?</b>	296.142	323	0.856

According to the results of the chi-square test, the test statistic for Q13 ( $p= 0.004$ ) indicated a significant difference between the two variables, namely greater familiarity with vocabulary learning strategies after the intervention than before. The null hypothesis can therefore be rejected in this case. The null hypothesis can however not be rejected for Q14 as there was no significant difference between the responses of the participants in the pre- and post-questionnaires.

I also wanted to find out whether the interventions were helpful to the participants in developing their vocabulary. Table 4.18 presents the descriptive statistics of the participants' responses to Q15 and 16.

**Table 4.18 Students' views on the helpfulness of the interventions**

Question	Explicit group	Implicit group
N	<b>31</b>	<b>28</b>
<b>Was the vocabulary intervention helpful to you in developing your vocabulary?</b>		
Yes	30	26
No	-	1
I don't know	1	1
None of the above	-	-
N	<b>30</b>	<b>28</b>
<b>Give a reason for your answer.</b>		
Know many more words than previously	29	27
Pay more attention to spelling now	1	1

The results showed that the majority of participants in both the explicit and implicit groups claimed that the intervention was helpful in developing their vocabulary. Moreover, most of the participants claimed

that the intervention was helpful because they knew more words afterwards than they did before the intervention.

In addition, participants from the explicit and implicit groups were asked about their attitudes regarding aspects of vocabulary learning in Q17 of the post-questionnaire. The descriptive statistics of their responses (both groups) are presented in Table 4.19.

**Table 4.19 Students' attitudes to vocabulary learning**

<b>Statement</b>	<b>Explicit group</b>	<b>Implicit group</b>
<b>N</b>	<b>31</b>	<b>28</b>
<b>It takes time to increase one's vocabulary size.</b>		
Strongly agree	8	6
Agree	16	10
Neutral	1	9
Disagree	5	3
Strongly disagree	1	-
<b>Improving vocabulary knowledge and size takes a lot of effort.</b>		
Strongly agree	12	12
Agree	12	11
Neutral	2	5
Disagree	4	-
Strongly disagree	1	-
<b>Students also have the responsibility to improve and increase vocabulary knowledge.</b>		
Strongly agree	23	21
Agree	7	6
Neutral	-	1
Disagree	-	-
Strongly disagree	-	-
4 responses ticked	1	

The results showed that the bulk of participants in both groups either agreed or strongly agreed with the statements.

Finally, I wanted to find out from the participants in the explicit group which of the four strategies (keyword, word part, word card or dictionary) they were taught had been most useful to them. Table 4.20 presents the descriptive statistics for this question.

**Table 4.20 Strategies ranked according to preference**

N	Explicit group	
	27	
<b>Which of the following vocabulary learning strategies taught during the intervention is most useful to you?</b>		
Keyword approach	6	
Keyword approach & dictionary	6	
All 4 strategies	6	
Dictionary	2	
Keyword approach & word card strategy	2	
Keyword approach, word part strategy & dictionary	2	
Keyword approach, word card strategy & dictionary	2	
Word card strategy	1	
Word part strategy	0	

According to the results, the keyword approach was considered very useful by a large number of participants. Moreover, the dictionary as a vocabulary learning strategy was regarded useful by many of the participants in the explicit group. Surprisingly, none of the participants felt that the word part strategy was useful. This issue will be taken up again in Chapter 5 (§5.1). Lastly, quite a number of participants also felt that all four strategies were very useful.

#### **4.7 The effect of vocabulary strategies on word recall**

The sixth research question sought to find out whether there were differences in the scores of the four short-term achievement tests of the explicit and implicit groups, to see whether participants remembered the target words taught each week. Each test was out of 10. The descriptive statistics for the groups are presented in Table 4.21.

**Table 4.21 Performance on the STATs of the two groups**

<b>Group</b>	<b>STAT 1</b>		<b>STAT 2</b>		<b>STAT 3</b>		<b>STAT 4</b>	
	EG	IG	EG	IG	EG	IG	EG	IG
<b>N</b>	35	32	37	32	32	30	38	42
<b>Mean</b>	5.6	4.9	5.2	4.9	9	7.9	8.1	7.7
<b>STD</b>	1.9	1.3	1.5	1.3	1.2	1.1	1.1	1.7
<b>Min - Max</b>	2-10	2-8	2-8	2-8	6-10	5-10	6-10	3-10

At face value the results indicated that the participants in the explicit group performed better than those in the implicit group. In order to determine whether there were significant differences in the scores on the STATS for the two groups, independent samples t-tests were used. Table 4.22 presents the results of the independent samples t-tests.

**Table 4.22 Differences in the STAT scores for both groups**

STAT	t-value	df	p value
1	1.654	59.360	0.103
2	0.805	67	0.424
3	3.724	60	0.000*
4	1.230	70.110	0.223

\* shows significant difference

The results from the independent samples t-test indicated that there was only a significant difference in the scores between the two groups for STAT 3 ( $t=3.724$ ,  $df=60$ ,  $p=0.000$ ). STAT 3 assessed ten target academic words and the explicit group used the word card strategy to learn these words. There were no statistically significant differences in the mean scores for the two groups in STAT 1, 2 and 4. As a result, the null hypothesis is accepted.

#### **4.8 Self-assessment of vocabulary size and actual vocabulary size**

The last research question sought to find out whether there was a relationship between participants' self-assessment of their vocabulary knowledge and their actual vocabulary size.

Data collected from question 2 of the pre- and post-questionnaire; and the pre- and post-VLT was correlated using a non-parametric correlation test. The following illustrates question 2:

**How do you feel about your knowledge of words in English? (Tick next to appropriate answer)**

I know more than about 5000 words	1
I know approximately between 3000 and 5000 words	2
I know approximately 2000 words	3
I know enough	4
I don't think I know enough	5
I don't know	6

Due to the fact that one of the variables is an interval (mean scores of VLT) and the other categorical (responses to Question 2), Spearman's nonparametric correlation was applied to the data from the pre- and post-questionnaire and the pre- and post-VLT. The results from the pretest showed a very weak positive correlation, which was not statistically significant ( $r_s = .013$ ,  $p = 0.913$ ). Likewise, the results indicated a very weak negative correlation for the posttests, which was also not statistically significant ( $r_s = -.025$ ,  $p = 0.858$ ). In effect, no significant relationship emerged between the participants' self-assessment of vocabulary knowledge and their mean scores in the VLT. As a result the null hypothesis cannot be rejected.

#### **4.9 Discussion of results**

Prior to the vocabulary programmes, participants in the explicit and implicit groups were tested to assess their receptive vocabulary levels and their academic literacy levels. All the participants performed surprisingly well in the vocabulary levels test, particularly at the 2000 and 3000 word levels. They also performed reasonably well at the 5000 word level. In fact, more than 25% of the participants in the explicit group showed mastery level of these mid frequency words. Despite this, half of the participants in this group (EG) scored less than 23 at the 5000 word level, which showed that they had not reached mastery of the mid frequency words (cf. §4.2). Not surprisingly, participants in both groups (explicit and implicit) had not reached mastery level of the 10 000, words with mean scores ranging between eight and ten out of thirty. On the other hand, the participants performed quite well at the academic word level. Half of the participants in both groups showed mastery level of these academic words. In sum, the students' performance on the VLT reflected a modestly optimistic view of their receptive vocabulary knowledge.

In contrast, the students' performance on the academic literacy test showed that the participants' academic literacy skills were not very strong. Participants' inadequate academic literacy levels were a cause for concern as these levels are regarded as an important contributing factor to students' lack of success and performance at university (cf. §3.5.2.4). This could have a negative effect on the estimated time in which students complete their qualifications, i.e. students could take longer than the prescribed time in which to complete their qualifications. Results from the pre-TALL showed that participants in both groups were categorised in either the 'high risk' or the 'extremely high risk' groups (to be discussed in §4.9.2). Moreover, the poor academic literacy levels of the students in four of the six

sections of the TALL (Table 4.9) is worrisome as students are expected to be academically literate so that they can perform academic tasks effectively and accurately.

To recap, after a 10-week intervention in which the two groups (explicit and implicit) received different treatments, their vocabulary and academic literacy levels were tested again. During the intervention, both groups were expected to read one article each week in which 10 words were targeted. In the explicit vocabulary programme the words were explicitly taught and vocabulary strategies were taught which were used to remember the words, while in the implicit vocabulary programme the articles containing the words were read and worksheets were completed. The next sections discuss the results of each of the research questions in greater depth.

#### **4.9.1 The effect of the vocabulary programme on vocabulary development**

The second research question investigated whether the vocabulary programmes (explicit and implicit) had an effect on vocabulary development. The results showed increases, albeit modest, in the mean scores of the pre-VLT and post-VLT for the explicit group. The mean scores across the levels for the implicit group in the levels showed uneven performance. It also appeared that the biggest gain in scores for this group was in the academic word level test. Further analysis showed a significant difference in the total mean scores of the pre- and posttest for the explicit group but not for the implicit group. Moreover, there was a significant difference between the two groups at the 5000 word level. The explicit vocabulary programme therefore appeared to positively affect vocabulary development at the 5000 word level. The implicit group, on the other hand, showed slight gains at the 5000, 10 000 and academic word levels. These increases could be attributed to the academic nature of the texts that the participants were required to read. Surprisingly, there was a decrease of 4.4 for the implicit group at the 3000 word level that is difficult to account for. Participants in the implicit group could have unlearned words they already knew or they could have guessed correctly in the pretest but not in the posttest.

As mentioned above, the explicit vocabulary programme appeared effective in developing vocabulary at the 5000 word level. This level reflects the mid frequency vocabulary type and receptive vocabulary knowledge of these words aids unassisted reading comprehension. The implicit vocabulary programme appeared effective in developing academic words as participants' mean academic words increased by 3.4, but only 0.8 in the explicit group.

Due to the context of the research study, especially with the inclusion of and comparisons made to academic literacy, the receptive vocabulary levels test might not have been the best instrument to assess vocabulary knowledge. Instead, the receptive VLT could have been supplemented with the productive VLT to get a more accurate picture of vocabulary size.

#### **4.9.2 Differences in the academic literacy levels after the intervention**

The third research question investigated whether there were differences in performance in academic literacy after the two different vocabulary interventions had been implemented. To this purpose all the participants' academic literacy levels were assessed before and after the vocabulary programme.

Obtaining the mean scores of the pre-TALL was sobering (Table 4.5). All the participants in the study (explicit and implicit groups) were categorised on the first two levels of the test, namely the 'high risk' and 'extremely high risk' levels. These students were therefore at risk of not completing their qualifications in the prescribed duration of the qualification as a result of their poor academic literacy levels. This points to the challenges facing the Language Centre in providing support that will help these students improve their academic literacy skills.

Although the comparison of the mean scores of the pre- and post-TALL showed that there were increases between scores, these increases were not significant. Even so, increases were observed in the minimum and maximum statistics in the posttest results. An interesting trend was a noticeable shift of participants in the 'extremely high risk' category to the 'high risk' category in the explicit group. Additionally, one participant in the explicit group managed to score 59 and was placed in the 'at risk' category (Level 3). These changes suggest that students were strengthening their skills.

The comparison of the mean scores also showed that there were no significant differences in performance in academic literacy between the explicit group and the implicit group at posttest time. Nonetheless, there were slight gains in the mean scores of the participants in both groups. As explained in the previous chapter (cf. §3.2.1), the TALL measured academic literacy according to the test developers' definition of this type of literacy. Academic literacy entails complex understanding and use of language and skills, and development of this type of literacy takes time. For example, two of the South African universities in partnership with the Inter-institutional Centre for Language Development and Assessment (ICELDA), have programmes or courses focused specifically on developing the

academic literacy of students. The duration of these is one full year. North West University, for instance, has a compulsory course (AGLA111 / AGLE 111) that students have to complete if they scored 35% or lower in the TALL (Olivier & Olivier 2013). As a result of the complex nature of developing academic literacy, time is crucial, yet the duration of the vocabulary intervention was only ten weeks. This could account for the fact that there were as yet no significant differences in the academic literacy levels of the participants. In addition, the vocabulary programmes for the explicit and implicit groups did not seem to affect the academic literacy levels of the participants in the research study. Because there was no control group in this study, whatever changes occurred in post-TALL tests could also be ascribed to the support the students were getting elsewhere in the ULEG course.

Moreover, students performed particularly poorly in four of the six sections of the test. The first of these measured academic word knowledge (second component of the TALL). Participants' low scores on this section do not correlate with the high scores at the academic word level of the receptive VLT. Due to the reliability index of the TALL (0.92) and the fact that the test has gone through vigorous stages to ensure transparency and accountability, the TALL was not regarded as the problem in the discrepancy between the TALL vocabulary subtest and the receptive VLT. This made me question the use of the receptive VLT as an adequate instrument to measure vocabulary knowledge, specifically due to the context of the study. Furthermore, when the productive version of the VLT was used in the pilot, the results were not as high as the receptive VLT results – even though the pilot group was similar to the main study groups (e.g. it was doing the ULEG module at the LC). This suggests that the productive test is somewhat 'closer' in assessment results to the TALL than the receptive VLT. Students are expected to have strong academic literacy skills at university in order to cope with their academic demands. The productive VLT could also have been used as it tests whether words are known well enough to articulate that knowledge explicitly. This could possibly be a better instrument with which to correlate with academic literacy. On the other hand, the receptive VLT could be used in conjunction with a productive VLT to get a better picture of students' vocabulary size. Nevertheless, academic vocabulary needs to be developed as participants might have receptive knowledge of these words but lack productive knowledge.

The third component of the TALL (graphic and visual information) was also problematic for the participants. Participants also performed inadequately in the fifth component (understanding texts) and the sixth component (grammar and text relations) of the TALL. The latter section had words deleted and

participants had to show where words were missing, and which of the choices provided would fit in the gap. This information is useful for the ULEG module as it draws attention to an area that has been overlooked in the module.

The results showed that the participants in the study did not have the academic literacy skills required for students in an academic context such as the university, and that a 10-week intervention programme does not easily bring about changes in academic literacy.

#### **4.9.3 Vocabulary and academic literacy**

The fourth research question investigated the relationship between students' vocabulary size and their academic literacy.

Results from the Pearson correlation test show that there were no significant correlations between vocabulary size and performance on the academic literacy test. This is surprising since vocabulary knowledge, specifically of mid frequency words and academic words, assists reading comprehension, i.e. performance on these words should correlate in different tests, which was not the case in the study. The participants scored relatively well in the word levels of the VLT, especially at the academic word level, but did not perform well on the academic literacy test, i.e. there was a discrepancy in the performance of the participants in the two instruments. In other words, there was a weak relationship between word knowledge and academic literacy.

There was no significant correlation between receptive academic word knowledge and academic literacy, as well as between the other word levels and academic literacy. This is a surprising finding and contrary to other findings in the field. Further research in this area is called for, especially in relation to uses of the receptive and productive VLT in the context of developing countries.

#### **4.9.4 The effect of the vocabulary programme on attitudes to vocabulary**

The fifth research question investigated to what degree the vocabulary programme affected students' attitudes about vocabulary.

The first aspect which was explored entailed establishing how participants felt about vocabulary knowledge regarding English proficiency before and after the vocabulary intervention. Results from the descriptive statistics of pre- and post-questionnaires (cf. §Table 4.12) showed that the majority of

participants in both groups thought that vocabulary knowledge was very important for English proficiency. Despite this, many of the participants did not have a system or means of recording or storing words, i.e. a vocabulary storage system. The interventions seemed to be beneficial in raising students' awareness of vocabulary storage systems.

Secondly, I wanted to find out whether the participants' attitudes were affected by the intervention. In general, more students claimed to have improved in pronunciation, spelling, combining words and how words are used together. Even though the results showed no significant differences, there were increases in positive responses from the participants. The participants agreed more with the statements after the intervention than before. In other words, they felt that they had improved. The interventions helped in improving students' motivation, autonomy and self-regulation, i.e. they became more aware of their responsibility in vocabulary development.

In addition to a general increase in the number of participants (both groups) who used a vocabulary storage system at the end of the intervention, the latter also affected their vocabulary storage systems positively in more than one way. Firstly, more participants preferred to use a notebook as a vocabulary storage system (VSS). Secondly, results showed that participants were more active in class at the end of the year. Thirdly, there was an increase in the number of participants who noted down the word and the meaning rather than just the word.

The fourth aspect dealt with vocabulary strategies. A significant difference was found in the participants' (explicit group) familiarity with vocabulary learning strategies. After the intervention a significant number of participants claimed to be more familiar with these strategies. This was particularly evident in the explicit intervention programme.

Participants were also asked whether the intervention had been helpful in developing their vocabulary as well as about their attitudes regarding vocabulary learning in the post-questionnaire. Most of the participants in both groups (explicit and implicit) claimed that the vocabulary intervention was helpful in developing their vocabulary. The interventions helped students realise the critical role they play in vocabulary building and that word learning words takes time and effort.

Lastly, the participants in the explicit group were asked which of the four vocabulary strategies they were taught had been most useful. The keyword approach and using the dictionary as a vocabulary learning strategy were considered the most useful by many of the participants. There were, however,

quite a number who felt that all four strategies were useful. Teaching vocabulary learning strategies was definitely worthwhile for the explicit group.

#### **4.9.5 The effect of vocabulary strategies on word recall**

The sixth research question investigated how the explicit teaching of vocabulary learning strategies affected students' word recall.

It appeared that the participants in the explicit group performed better on the STATS than the implicit group. However, further analysis showed that there were no significant differences in mean scores for STAT 1, 2 and 4 between the groups (§Table 4.22), but there was a significant difference between the mean scores of the explicit and implicit groups on STAT 3. On this occasion participants in the explicit group used the word card strategy to learn the target words, while participants in the implicit group read an article containing the words and completed a worksheet (§3.5.2.6). From these results it appears that using the word card strategy may help in recalling words. Furthermore, it would appear that the word card strategy was more effective than the other strategies that were taught, namely the keyword approach, word part strategy and the dictionary, in recalling meaning of words. This is an area that merits further research.

#### **4.9.6 Self-assessment of vocabulary size and actual vocabulary size**

The last research question investigated the relationship between students' self-assessment of their vocabulary knowledge and their actual vocabulary size. I included this research question in order to get a rough estimate from the students as to their *perceptions* of their word knowledge. It is of course extremely difficult to estimate one's vocabulary size, but the focus here was not on accuracy but on students' perceptions of what they thought they knew.

Results indicated that there were weak correlations between the number of words the participants claimed to know and their scores on the vocabulary levels test (VLT). This suggests that students may not be accurate in their self-assessment of their knowledge and may also be unaware of the different kinds of words that they need to know in order to succeed at university. Further research into whether greater word knowledge leads to an increase in the ability to self-assess and self-regulate (i.e. knowing what you don't know) is an area that could benefit students at university.

## **4.10 Conclusion**

The research study sought to find out in what way a vocabulary programme affected vocabulary development and academic literacy, as well as to what degree the programme affected attitudes about vocabulary. Moreover, the study investigated to what extent the vocabulary strategies taught had affected word recall. The study also sought to find out what the relationships were between vocabulary size and academic literacy and self-assessment of vocabulary and vocabulary size. Finally, the findings of the hypotheses were presented and reported on, concluding with a discussion of the research questions.

Results from the study gave me valuable insight into the importance of vocabulary instruction, as well as the necessity to promote vocabulary development and academic literacy. Findings from the pre- and posttests indicated adequate vocabulary knowledge of high frequency, mid frequency and academic words but poor academic literacy levels of the sample population. Both interventions positively affected the vocabulary development of the participants in groups even though these changes did not reach significant levels. For example, the explicit intervention was effective in developing vocabulary at the 5000 word level, whereas the implicit intervention was beneficial in developing academic words. In addition, the results of the academic literacy test showed that the students did not have strong academic literacy skills and that they are at risk of not completing their qualifications in the prescribed time of the qualification. The results also provide useful information for the Language Centre regarding the aspects of academic literacy that students struggle with in particular, which need to be addressed in the near future.

Findings showed that the research study had some positive effects. The analysis of data indicated that there was a modest yet significant difference in the mean scores of the VLT of the explicit group and modest increases in the mean scores of the VLT of the implicit group. Data analyses also showed positive responses from the pre- and post-questionnaire data of both the explicit and implicit groups. In addition, there was more awareness by both groups of the need for an effective vocabulary storage system and a general increase in the number of participants who kept one. Participants in the groups (explicit and implicit) also indicated that they used the VSS more after the intervention than they did before. Data analyses also showed that the word card strategy is an effective vocabulary learning strategy.

The next chapter provides a narrative report on the vocabulary intervention and serves as the qualitative element of the study. Chapter 5 also briefly discusses the participants' responses to the intervention and considers the instructional lessons learnt. In conclusion, motivational and methodological factors are explored.



# **Chapter 5**

## **5.0 Introduction**

Unlike the quantitative results of Chapter 4, this chapter reports on the vocabulary intervention in a narrative style and functions as the qualitative element of the research study. It specifically reflects on key issues of the intervention, namely my experience of the intervention, as well as my observations of and interactions with the students during the intervention. The participants' responses to the intervention will be discussed, as well as the instructional lessons learnt. Thereafter, some motivational factors and pedagogical issues are dealt with.

## **5.1 Responses from the participants**

The duration of the intervention was 11 weeks, with the participants attending an additional 2 hours of teaching time per week, i.e. one period of 2 hours a week, in addition to the normal 4 hours of class they attend per week. In general the participants in the groups (explicit and implicit) were keen to participate in the vocabulary intervention. Many of the sessions were well attended and participants were motivated to develop their vocabularies. Responses in the pre- and post-questionnaires showed that the participants felt that vocabulary knowledge is important. Further observation led me to believe that they were intrinsically motivated as quite a number of the participants, especially in the explicit group, participated keenly during the sessions.

The participants' attitudes to vocabulary were largely influenced by their confidence in the vocabulary aspects dealt with. From the pre-questionnaire it was clear that the majority of participants in both groups (explicit and implicit) felt that vocabulary knowledge is important in English proficiency. I also observed that a considerable number of them showed confidence when using new words during speaking, i.e. when pronouncing words. The structured period specifically dedicated to vocabulary seemed to give the students more confidence to try out the target words in a public forum. The confidence they showed when using the words could also stem from greater confidence in their pronunciation of the word or feeling that they were using the word appropriately. An interesting finding from the pre-questionnaire data was that 44% of all the participants were undecided about pronouncing words correctly. In other words, they did not commit themselves to agreeing or disagreeing with the statement that they pronounce words correctly.

The second vocabulary aspect examined was attention to word forms/spelling. I observed that the participants, particularly in the explicit group, paid more attention to the spelling of words during lessons towards the end of the intervention than they did before. This could be ascribed to the fact that they were writing down words in their notebooks more. The act of writing down a word draws attention to its form. I was also asked to write words that cropped up during lessons on the board more regularly towards the end of the intervention by the explicit group. Moreover, post-questionnaire data showed that participants in both groups felt that they could spell words better after the intervention.

The third vocabulary aspect explored how the participants felt about combining words to form accurate sentences. The majority of participants in both groups showed confidence in combining words to form accurate sentences, but some were undecided about this, which could have been due to uncertainty as to what was meant. Numerous participants also felt undecided about different meanings of words found in different contexts and how words are used together. In other words, they were unsure about these aspects of vocabulary. In general, there was a noticeable increase in positive attitudes regarding various aspects of vocabulary knowledge. My observations led me to believe that the intervention had a positive effect on the participants' attitudes towards and greater understanding of the different dimensions of word knowledge.

Another issue I explored further was whether the participants used a system for storing words. In other words, how did they manage their vocabulary development, specifically in terms of recording words? Initially, a small percentage of the participants claimed to use such a system. I found that the majority of these participants preferred to write down the meanings of words in either a notebook or in the margins of their books. After the intervention I found that more than half of the participants had started using a vocabulary storage system (i.e. they had personal notebooks for this purpose) and fewer wrote the meanings in margins of books, while more indicated that they actually recorded new words in notebooks.

A noticeable observation was that the participants in the study became more strategic in organizing their vocabulary storage systems. Data from the questionnaire revealed that the organization of these systems entailed recording words as they came up in class. In working with the students I found that many of them had started to write down the words and their meanings, while some wrote down only the word. The latter is less effective for word learning. Even though the participants in the explicit group were made more aware of the need to write down the word and meaning, the questionnaire data showed that

more participants in the implicit group became aware of the need to use a note book as a storage system. In general, I found a decrease in the number of students who only wrote down the word (both groups) and an increase in the number who noted down both the words and their meanings. This strategy helps when revising new words at a later stage.

Participants in the explicit and implicit groups also became more aware of their learning. I discovered a lot more participants used the storage system as a personal dictionary during and after the intervention than they did prior to the intervention. Due to the context of the research situation, students are exposed to formal language in their academic activities and words used in this type of context will be prevalent in their storage systems. Having a personal dictionary of the words used in a particular discipline can only benefit students, provided that it is regularly consulted and new words revised. Interestingly, I also ascertained that the participants in both groups used their storage system more often than they did before the intervention commenced.

In addition to the above, other signs were also observed which indicated that the participants were becoming more effective in using learning strategies. They indicated that they used the dictionary quite often when they needed to look up meanings of words. Data showed that the majority of participants in both groups used a monolingual dictionary, such as the Oxford's Advanced Learner's Dictionary. The rest of the participants used a bilingual dictionary or both. During and after the intervention, I noticed that they brought their dictionaries to class more often and used these more often. I also noticed that they used the dictionary more effectively. For example, it did not take them as long to find the new word in the dictionary and to identify the appropriate meaning from the variety of meanings provided by the dictionary.

Discussions with the participants in the explicit group indicated that they were very grateful for the additional sessions. Many stated that they benefited greatly from the vocabulary strategy instruction and felt their vocabulary had improved. They also seemed to enjoy the session in which match boxes were used. They enthusiastically made their 'little' word cards.

## **5.2 Instructional lessons learned**

During the 11-week intervention period I made valuable observations regarding the teaching of vocabulary at the university. The lessons I have learnt will not only affect my pedagogy, but will also result in modifications to the modules at the Language Centre.

I have always been aware of the importance of word knowledge and the vocabulary teaching programme affirmed my belief. Furthermore, there have been numerous complaints across faculties about students' poor language skills and throughout my years of teaching I have observed students struggle with English at tertiary level of education. I have become convinced of the urgent need to design specific programmes that target vocabulary building – and not just have vocabulary as part of a more generic language programme.

Towards the middle of the intervention I also observed a decline in attendance of the implicit group. Attendance varied between 8 and 41 at the time, which was a warning sign, showing that the intervention for this group needed rethinking. If extensive reading routes are to be effective, they need to be designed and properly monitored. The more open-ended nature of the implicit programme and the requirement to sit and read for two hours was unfamiliar to the students. Some may have felt that they could spend their time more profitably doing something else. Goal setting is also important here. One should, for example, know which words to target at the start and work towards building word knowledge of these. In addition, it is also important to raise awareness of the importance of exposure in an effort to change deeply instilled attitudes. Dweck (2007, 37) found that “a growth mind-set creates motivation and resilience –and leads to higher achievement”. A growth mind-set refers to believing that your intellectual ability can be developed through education and effort (Dweck 2007). Students should be made of aware of the benefits of extensive reading and how they, being in control of their learning, can excel in their learning and improve their intellectual abilities.

Because the explicit programme provided explicit strategy instruction, it conformed more closely to their idea of a ‘proper’ lecture, thereby legitimizing it. This may account for the more regular attendance of the explicit group. They readily spoke about their handicap or disadvantage regarding English proficiency. Many had obtained a nursing diploma and mainly communicated in Afrikaans or in one of the local languages in their profession. Conversations during the sessions demonstrated their eagerness to develop their vocabulary in order to increase their proficiency in receptive and productive language use. They saw the intervention as contributing to their professional development. It is therefore important for the intervention to help students become more strategic and hence more effective vocabulary learners so that they can thereby increase their proficiency.

Over and above the positive effects of teaching vocabulary learning strategies (§2.5.4), certain strategies in particular are very beneficial to students. The word part strategy, for example, which focuses on word

parts, looks at inflections and derivatives. Students had to identify prefixes, stems and suffixes of the target words and were then taught the meanings of the prefixes and suffixes. This appeared to build more word awareness and helped the students to build word families.

Overall, the interaction during the implicit intervention sessions was less formal than those of the explicit group due to smaller group discussions and more opportunities for discussion. The participants felt more at ease during these sessions than they did during the formal class sessions. Consequently, there were lively discussions, especially if the content was stimulating. I noticed that the content of the articles affected the discussions about key topics in the texts. For instance, there were lively discussions on the articles about mobile phone use and the social media revolution. In order to take complete advantage of everything the text has to offer, it is important to ensure that the content of the articles are relevant and interesting to a particular group of students.

### **5.3 Motivational factors**

Motivation has generally been accepted as critical in language learning. Tseng and Schmitt (2008), for example, argue that it is safe and logical to assume that motivation promotes vocabulary learning. Dweck (2007) also found that students who are motivated tend to do better, which also increases their desire to work hard and learn. In retrospect there seemed to be two factors that influenced the participants' engagement in the intervention. The first appeared to be intrinsic motivation as the participants were aware that they were at a disadvantage regarding vocabulary levels and low scores in the TALL. Students need to be given the results of the VLT pretest so that they can set goals for themselves at each of the frequency levels. Prizes could be offered to students who reach their goals at posttest time. Getting their results at the start of the intervention also enables them to identify where their strengths and weaknesses lie and respond accordingly. Many of these mature participants (explicit group) knew that their career, e.g. nursing, would benefit if their English language proficiency improved.

The second key factor which influenced participation in the intervention was the teaching method used. The procedures involved in the explicit and implicit groups were different (§3.5.2.6). The explicit intervention sessions were more structured and provided explicit instruction which could explain why attendance of the intervention sessions was better by the participants from the explicit group than by those in the implicit group. The implicit intervention sessions were more open-ended. It appeared that

the students were not used to this kind of format and did not associate it with learning. It is important that goal setting and awareness of the importance of exposure/incidental learning be more explicitly built into this approach to vocabulary learning. Students should be made aware that incidental learning is not a laissez-faire approach to vocabulary learning.

I also observed that the participants in the explicit group showed more confidence in using words during speaking in the group and class discussions compared to the participants in the implicit group. This sentiment was also observed in the explicit group's responses in the post-questionnaire when asked whether the intervention was helpful in developing their vocabulary. Post-questionnaire data also showed that the majority (97%) of the participants in both groups felt the intervention programme had indeed been helpful.

#### **5.4 Pedagogical issues**

In addition to instructional lessons that I learnt from reflecting on what I observed during the intervention and the motivational factors I perceived, I also became aware of certain aspects of the intervention that I would do differently if I repeated the process.

The first aspect that I would revisit is the time frame of the intervention. The duration of the intervention should be increased so that it can have a stronger effect on vocabulary and academic literacy development. In hindsight, 10 weeks was not long enough for significant development to take place. Explicit and implicit interventions lead to different vocabulary development trajectories. The explicit group, for example, can be exposed to a lot of new words in a shorter time span, whereas with the implicit group, there is a more gradual, accumulative increase – not only in word knowledge but also in becoming more familiar with patterns of language use. These are aspects that could be explored in future research.

Secondly, I would definitely reassess the tools I used to measure vocabulary growth. Instead of only using the receptive vocabulary levels test, I would include the productive VLT. The productive VLT could provide a more realistic picture of how students use vocabulary, which could in turn show a stronger relationship to their academic literacy. Because it is productive, it aligns more closely with their academic performance, which is largely assessed through the written mode. More research is therefore needed into the use of these versions of the VLT in the Namibian context.

Finally, the participants' eagerness to learn, as well their realization of the importance and relevance of word knowledge was clearly noticeable. The attendance and enthusiastic participation of the participants in the explicit group attested to their zeal to learn. Even though participants in the implicit group were enthusiastic during discussions, their irregular attendance made me rethink the design of the implicit intervention. In this kind of intervention the students should be made more aware of how important reading and discussing articles can be for their vocabulary development. Furthermore, the participants might not have seen a direct link between the implicit intervention and their vocabulary development. I would therefore package an intervention differently if I were to redo it. I would, in particular, make students more aware of the goal of the intervention and design the programme in such a way that it is more appealing to them. I would also teach more strategies, for example, memory strategies such as visualization and I would pay more attention to the sequence of strategies taught. For example, dictionary work will be taught earlier.

The last chapter provides a summary of the study and the main findings. It also discusses the contributions of the study to vocabulary learning and teaching in the Namibian context, identifies limitations and explores suggestions pertaining to vocabulary learning and teaching at tertiary level in Namibia. Finally future research in the field is considered.



# **Chapter 6**

## **6.0 Introduction**

This concluding chapter summarises the study and the main findings, and discusses the contributions of the investigation to vocabulary learning and teaching in the local context. Thereafter, the limitations pertaining to the study are identified and recommendations made regarding vocabulary learning and teaching at tertiary level in Namibia. Lastly, suggestions for further research are proposed.

## **6.1 Summary of the main study**

In 1991 Namibia adopted English as the official language after independence and as a result English, an AL for the majority of Namibians, became the language of learning and teaching (LoLT). Twenty-three years down the line, the country is still facing huge language and literacy challenges as a result of this policy change. Students in particular seem to bear the brunt of these challenges. At tertiary level, it is assumed that, after twelve years of secondary education, students entering university have adequate vocabulary and are academically prepared to cope with the linguistic skills needed in this academic context. However, this does not seem to be the case in Namibia.

This research study firstly aimed to determine first-year students' vocabulary knowledge of English, as well as their academic literacy. The study also investigated the effects of two different vocabulary programmes (explicit and implicit) on vocabulary development and academic literacy. Additionally, the study sought to establish the effects of the vocabulary programmes on students' attitudes about vocabulary and how the explicit vocabulary strategies affected students' word recall. The relationship between students' vocabulary size and academic literacy levels, as well as the relationship between students' self-assessment of their vocabulary knowledge and their performance on the VLT were examined.

Based on a quasi-experimental, pre-posttest design, the current research study largely depended on quantitative data in the form of assessment instruments, namely: the VLT to measure receptive vocabulary knowledge, the TALL to assess academic literacy, and the pre- and post-questionnaires to establish attitudes about vocabulary and self-assessment of vocabulary size. In addition, short-term achievement tests provided quantitative data to determine recall of the words that received attention. The

study was carried out in two phases: the pilot studies, including the alteration and addition of research instruments, and the main study. Three hypotheses were tested in the research study.

The main study comprised two groups of first year students. The groups received different treatments during a ten-week intervention period. Both groups read the same four articles, but the post-reading treatment differed. The explicit intervention programme involved explicit instruction of 40 academic words which were presented in context, i.e. they occurred in the given articles, as well as explicit vocabulary strategy instruction. The implicit intervention programme entailed completing worksheets and discussing the content of the articles read, and encouraging students to increase their exposure to language through reading extensively.

In **Chapter 1** the background and the context of the study were discussed and the theoretical foundations were briefly presented. In addition, the research problem, research questions and hypotheses were identified, followed by an outline of the methodological design of the study.

**Chapter 2** reviewed and discussed the literature pertaining to the study. The discussion was divided into sections which related to various aspects of the study, namely vocabulary size and depth, types of vocabulary, vocabulary acquisition, and the role of vocabulary in language learning and teaching. Chapter 2 also described studies involving vocabulary interventions and concluded with a discussion of vocabulary assessment.

**Chapter 3** described issues pertaining to research methodology in language-related studies, and situated the study within the broader methodological landscape. Thereafter, the research questions that informed the study were stated and a description of the research design, participants, materials, and procedures related to the study was presented.

In **Chapter 4** the findings of the study were presented and reported on, and the results of the study were discussed according to the research questions which were based on the following main components:

- Were there differences in the vocabulary development of the participants in the explicit and the implicit groups?
- Were there differences in the academic literacy skills of the participants in the explicit and implicit groups?
- Were there correlations between vocabulary size and academic literacy?

- Were there differences in attitudes about vocabulary after the explicit and implicit vocabulary programmes?
- What was the relationship between vocabulary strategies and word recall?
- What was the relationship between self-assessment of vocabulary size and actual vocabulary size?

**Chapter 5** presented a narrative report of the study and identified key issues that emerged from the two vocabulary interventions.

## 6.2 Findings of the main study

The findings of the main study contribute significantly to an area in English language studies that is currently on the threshold of receiving the attention it deserves within Namibia. The role of vocabulary in language learning and teaching has been neglected and should become a priority in English classrooms at schools and universities across Namibia.

The main findings of the study are summarized below.

- **The vocabulary and academic literacy levels of the first-year students who participated in the study**

The first research question investigated the vocabulary and academic literacy levels of the first-year students who participated in the study. The receptive vocabulary levels test (VLT) used as a test instrument in the study revealed results that paint a bleak picture of the English mid frequency word knowledge of first-year students at the University of Namibia. Despite students typically scoring higher on receptive than productive vocabulary tests, data showed that not all the students have the receptive word knowledge they need when entering university. This dispels the assumption that students entering university have adequate vocabulary knowledge. Participants in the study had reached mastery level at the 2000 and 3000 word levels of the pre-VLT, but half of the sample had not reached mastery at the 5000 word level. In addition, 50% of participants in both groups did not reach mastery at the academic word level.

This question also investigated the participants' academic literacy levels. The TALL results showed that the students' academic literacy skills were not very strong. They scored poorly in

four of the six components of the TALL and their overall scores revealed that they did not have adequate academic literacy skills to cope with the academic demands of university. They were identified as either ‘Extremely High Risk’ or High Risk’.

- **The effect of the explicit and implicit vocabulary programmes on vocabulary development**

The second research question explored how the 10-week explicit and implicit vocabulary programmes affected the students’ vocabulary development. Findings showed that students in the explicit group modestly improved their receptive vocabulary knowledge at all five levels, while the performance of the students in the implicit group was not as consistent. Overall, however, there were no significant differences in the post-VLT between the two groups, except at the 5000 word level, in the case of the explicit group.

- **The effect of the explicit and implicit vocabulary programmes on academic literacy**

The third research question that informed the study investigated whether the interventions brought about change in academic literacy levels. Findings showed that there were no significant differences in the mean scores of the pre- and post-TALL between the groups. Nonetheless, there were slight gains in the mean academic literacy scores of the participants in both groups. One factor which could account for the lack of significant changes in academic literacy seems to be the duration of the two interventions. The vocabulary programmes lasted 10 weeks and this appeared too short a period to impact on the academic literacy levels of the students. It appears that the duration for such an intervention should be longer than 10 weeks to enhance academic literacy. Another factor that should be taken into cognizance is that the academic literacy levels of the students were very low at the start of the intervention and this could have influenced the development of their academic literacy. They need to catch up on skills, and they need more time to catch up.

In addition to the above, the study indicates that students at the university do not have the expected academic literacy skills, i.e. they have not yet mastered critical language and literacy skills. Findings from the standardized TALL show that all the students in the study were either in the ‘High Risk’ or the ‘Extremely High Risk’ category. The provisioning of academic support

should be addressed in order to improve the apparent low academic literacy levels of undergraduate students.

- **Vocabulary and academic literacy**

The fourth research question examined the relationship between students' vocabulary and their academic literacy. Vocabulary is core to language proficiency in general; it should also be core to academic literacy. Although the students' vocabulary improved modestly in the 10-week intervention, their academic literacy skills remained poor. Findings indicated that there was a weak relationship between these variables in general. Changes (increase or decrease) in the one (vocabulary size) did not correlate with the other (academic literacy). That is, the receptive vocabulary size of the students did not correlate with their academic literacy. Even though there were slight increases in students' receptive vocabulary knowledge after the intervention, this was not reflected in their academic literacy levels. This was a surprising finding that goes counter to conventional wisdom. This result may have been an artefact of the research instruments used. The receptive VLT may not be a vigorous enough tool to use in this context. This gives reason to supplement the receptive VLT with the productive VLT to get a better measurement with which to compare academic literacy.

- **The effect of the explicit and implicit vocabulary programmes on attitudes about vocabulary**

The fifth research question explored the effect of the vocabulary programmes (explicit and implicit) on students' attitudes to vocabulary. Findings from the descriptive statistics from the selected questions in the pre- and post- questionnaires from both groups indicate an increase in positive responses from the students regarding their attitudes about vocabulary.

- More students felt that knowledge of vocabulary is very important in language proficiency. Moreover, students' attitudes about correct pronunciation and spelling of words took a positive turn after the intervention programmes. Before the intervention 28% of the students felt that they did not pronounce words correctly while another 28% felt that they pronounced words correctly. After the intervention 44% of the students in both groups showed more confidence in pronunciation, while 2% showed no confidence in their pronunciation skills.

Another positive effect of the intervention is shown by the increase in agreement (strongly agree/agree) regarding correct combinations of words to form sentences, knowledge of different meanings of words in different contexts and how they felt about using words together correctly. The intervention resulted in more students claiming to know how to combine words correctly as well as knowing more about the different meanings of words. Furthermore, the intervention also affected students' knowledge of using words together correctly. This could be ascribed to the additional reading done by participants in both groups and their increased exposure to lexical patterns.

- Data from the questionnaires (pre and post) show that more students started using a vocabulary storage system (VSS) after the intervention. The intervention seemed to make students more aware of the relevance of systematically storing new words and the importance of making use of such a VSS.
- Additionally, the explicit intervention also increased students' knowledge of vocabulary learning strategies. Analyses of the data show that students in the explicit group were more familiar with the strategies after the intervention than at the start.
- Findings also indicated that students in both groups (explicit and implicit) found their respective interventions to be helpful in developing their vocabulary. In other words, students felt that reading academic texts, paying explicit attention to words and vocabulary strategy instruction (explicit group), as well as reading and talking about academic texts and reading short stories extensively (implicit group) promoted vocabulary development. The explicit and implicit vocabulary programmes illustrate the positive effect that the interventions had on the students' attitudes about vocabulary.
- Additional data analysis from the post-questionnaire of the explicit group identified the keyword approach and use of the dictionary as the most useful of the four vocabulary strategies that were taught. Some students (22%) also felt that all four strategies, namely keyword, word parts, word cards and dictionary strategies were useful.

- **The effect of vocabulary strategies on word recall**

The sixth research question examined the effect of the explicit vocabulary strategies (keyword, word part, word card and dictionaries) on students' word recall. Data from the short-term achievement tests (STAT 1, 2, 3 & 4) were analysed to find out whether there were significant differences in the scores of the two groups (explicit and implicit). Findings showed that, despite no significant differences in the scores of the groups in STAT 1, 2 and 4, there was a significant difference between the groups for STAT 3 (§4.7). The word card strategy seemed to be particularly effective in word recall for the explicit group students.

- **Self-assessment of vocabulary size and actual vocabulary size**

The last research question investigated the relationship between students' self-assessment of their vocabulary knowledge and their actual vocabulary size at pre- and posttest time. Results from the analysed data showed weak correlations between these two variables. In other words, there was no significant relationship between the students' self-assessment of their vocabulary knowledge and the mean scores of the VLT. This suggests that assumptions or self-assessments cannot be made about vocabulary knowledge. Vocabulary knowledge should be tested in order to reveal actual vocabulary size.

### **6.3 Limitations of the study**

All research studies have limitations and this one is by no means an exception. The first limitation pertains to the implementation of the programme. The academic year of the University of Namibia comprises two semesters. The first semester normally starts in February and ends in June. Classes at the Language Centre take about two weeks to normalize as first-year students sort out issues related to registration and selection of modules. The continuous exemptions that are granted at the beginning of the year based on students' English symbols obtained for their school leaving certificate, contribute to the delay in getting the classes settled at the beginning of the year. As a result, lectures start later than planned.

Finding a suitable time for the additional hours for all the students in the two groups proved quite challenging because the interventions were voluntary, with the programme offered as an optional extra, which made it difficult to fit it into the Centre's schedule. Scheduling two hours that suited all the students' timetables was especially difficult for the implicit group. As a result, those who could not

attend the second hour of the intervention attended a make-up session during another hour. Consequently, I had an additional hour (make-up session) scheduled for the intervention each week. After consensus was reached, the intervention finally commenced.

The pacing of the intervention was another issue that deserves attention. The pace of the explicit intervention was slow, i.e. forty words in ten weeks. If ten new words were learnt every week over ten weeks, it would amount to one hundred words being learnt. This is more likely to help increase students' knowledge of academic words within the same time span.

The second limitation deals with the absenteeism within the groups. The number of students decreased towards the end of the intervention, resulting in fewer students from the groups (explicit and implicit) who wrote the post-VLT and the post-TALL, as well as completed the post-questionnaire. This could be due to the voluntary nature of the programmes. Voluntary interventions are vulnerable to attrition. Ideally I would have wanted all the students who participated at the beginning of the intervention to be present till the end so that the data collection was sufficient for conclusions to be drawn.

Lastly, the use of the receptive vocabulary levels test instead of a test assessing the productive vocabulary knowledge (for example the productive version of the VLT) in the study is another limitation. The productive version may have produced different results, which in turn may reflect a stronger relationship with their academic literacy. More research is therefore needed into the use of these two versions of the VLT in the Namibian context.

#### **6.4 Insights into the teaching and learning context**

The areas of focus in the study yielded important insights into the teaching and learning of vocabulary in the Namibian context.

For a vocabulary intervention to be successful it should be well planned. It is imperative to establish beforehand which words, in terms of frequency levels, the programme will focus on. In order to ascertain which words should be focused on, more than one vocabulary measurement should be used to get an accurate indication of the students' vocabulary size. In cases where English is the AL and used as the LoLT, attention should be on high frequency words as well as academic words and should receive explicit attention. Additionally vocabulary learning strategies should be explicitly taught and the programme should be supplemented by additional reading of academic texts. Reading and explicit

vocabulary and vocabulary strategy instruction all assist in vocabulary development, thereby affecting students' language proficiency.

Due to the incremental nature of vocabulary development there are no shortcuts in vocabulary knowledge acquisition. Enough time should be allocated for a vocabulary intervention to be useful. Moreover, specific programmes that target vocabulary building need to be well designed – and not just have vocabulary either as part of or as an add-on to a more generic language programme.

Most institutions of higher learning in South Africa are concerned about the academic literacy levels of students enrolled at universities (Weideman 2003; see also Cliff et al. 2003, Visser & Hansloo 2005, in Van der Slik & Weideman 2008), and Namibia is by no means an exception. Findings from the current research study indicate that more attention should be paid to helping students develop academic literacy. The study showed that the students who participated did not have strong academic literacy skills, which are critical to academic success. As a result of the complex nature of academic literacy, i.e. the complex understanding and correct use of language and skills pertaining to academic contexts, sufficient time should be made available to promote and develop it at tertiary levels of education. It should also be assessed with new intakes of students – not as a gatekeeping device but to tailor interventions appropriately.

The study further suggests that tertiary students claim to be familiar with using contextual clues and prefer to use this strategy and the dictionary when they encounter unfamiliar words. However, they need to be exposed to a wider variety of vocabulary strategies. The study proposes that a vocabulary programme include explicit instruction of academic words (especially of the less frequent academic words in the sub lists) as well as explicit instruction of vocabulary learning strategies. The findings show that it would be useful to include the word card strategy, keyword strategy and use of the dictionary in explicit instruction of vocabulary strategies. In addition to explicit instruction of academic words and vocabulary strategies, the programme should also include extensive reading. The study indicates that reading can assist vocabulary development. Not only are students exposed to high frequency, mid frequency and academic words, reading also assists in developing partially known words to mastery level (§2.4).

Although the paired t-test showed that the explicit group did improve from pre- to posttest time, they did not, overall, significantly outperform their peers in the implicit group, except at the 5000 word level.

The study suggests that the treatment of the implicit group did appear to be effective to some extent in developing vocabulary. Responses from the post-questionnaire also showed that students took cognizance of the fact that they [students] play a significant role in improving and increasing vocabulary knowledge. The interventions proved to have modest positive effects in general and can be used as initial frameworks for a vocabulary programme at tertiary level.

## **6.5 Contributions of the study**

To the best of my knowledge, the study reported on is the first of its kind in Namibia and makes a contribution to studies on vocabulary development and academic literacy at tertiary level in Namibia.

Firstly, both vocabulary interventions make important contributions to an area of English learning and teaching which is often neglected. The explicit vocabulary programme, for example, appeared to be effective in developing vocabulary at the 5000 word level, while the implicit vocabulary programme was effective in developing academic words.

There has not been much research done in this area and the two programmes that were implemented contribute positively. For example, the implicit intervention emphasized the importance of exposure to words which results in vocabulary development and thereafter learning language in general. This leads to learning the contextual conventions involved in language use. Due to the extensive reading nature of the implicit intervention, it is very important that students are motivated. This can be done by raising awareness of the significance of exposure in word learning. Moreover, the discussions that took place during the implicit sessions created a forum where new words could be used by students in the discussions.

The explicit intervention involved active participation of the students in the sessions and this seemed to motivate students to keep on attending the sessions. Their involvement in learning about the vocabulary strategies affected their motivation positively as they became more aware of their own learning.

Secondly, the study showed that first-year students do not have strong academic literacy skills which are pertinent to academic studies. People recognize this but there has not been much research done, with the result that the university management does not take this issue seriously. Academic literacy tests should be introduced at the University of Namibia. In this way, we can produce scientific and not anecdotal evidence which in turn will speak to management and lecturers. Academic literacy tests are also

important for monitoring the efficacy of support programmes. This may prompt management to spend the necessary resources (financial and human) on the design and implementation of standardized tests to assess academic literacy levels.

## **6.6 Implications for vocabulary teaching and learning in Namibia**

As a result of the investigation into the relationship between the vocabulary programmes, vocabulary development and academic literacy, implications and recommendations emerge for research as well as vocabulary teaching and learning in Namibia. The next subsections identify and briefly explain these implications.

As indicated in previous chapters, the population of the study comprised undergraduate students enrolled for English for General Communication (ULEG) at the Language Centre (LC). The fact that they are enrolled for this module indicates that they do not have the English language skills to enroll for a degree offered through the medium of English at university level. There are, however, exceptions to the rule as some students enter university with high points in content subjects but with relatively poor English (§1.2.2). The study yielded valuable information about just how concerned we need to be as language practitioners with regard to the academic literacy skills of our students.

Research studies, in general, provide conclusions drawn from the findings of the research. One of the implications of the current study is that both avenues of vocabulary development (explicit and implicit learning of words) should be explored. The study recommends explicit vocabulary teaching (paying specific attention to selected words) in addition to explicit vocabulary strategy instruction and reading. The implicit intervention is also important as it focuses on exposure to words through reading. Due to the importance of the role of exposure in word learning, more academic texts should be read by the students to maximize exposure. It is also important that the words that receive attention be included in the running words of the texts the students have to read, which requires careful planning by the lecturer in selecting the reading material for the intervention. Furthermore, I recommend that the goals set for a vocabulary teaching programme be specific (the words to be focused on) and manageable. For example, in the 10-week intervention reported on, 40 academic words received explicit attention. It would therefore be unrealistic to expect students to learn 100 academic words in a two-week intervention programme. In addition, awareness raising activities could include offering small rewards as incentives to students who obtain high scores in the vocabulary tests that they can voluntarily do at the Language

Centre. Students could bring their own dictionaries to class and the students who own the most worn and clearly used dictionaries could get a prize. Spelling Bee competitions could also be hosted by a tertiary institution focusing specifically on academic words, and prizes – such as dictionaries – can be awarded to the winning team. Using dictionaries is a vocabulary learning strategy and focusing on dictionaries would raise awareness of their relevance.

There is also a need to determine which measure (receptive or productive) correlates more closely with reading comprehension and academic literacy. Vocabulary knowledge needs to be measured at all levels of education to establish vocabulary knowledge and to investigate not just measures of vocabulary size in terms of discrete word knowledge, but also look at vocabulary depth, and how students use multiword phrases, for example *to make a decision*, *take into account*, *have a word with*, etc. Further research into the vocabulary size of learners and students could result in making vocabulary an integral component of the curriculum.

### **6.6.1 Implications for vocabulary learning and teaching at the university**

Research purports that receptive word knowledge is normally larger than productive word knowledge, which explains why writing and speaking present challenges to students. The lack of adequate vocabulary knowledge of the students, as indicated by the results from both the VLT in 2010 and 2011 (§4.2), show that increasing vocabulary size should be addressed in the English module, and vocabulary development must become a priority in language lectures and curricula at tertiary institutions.

A body of literature exists which affirms that 98% of the running words in any text need to be known in order for comprehension to take place, without assistance (Nation & Anthony 2013 for example). For instance, Nation (2006) argues that we should have knowledge of 8000 word families in order for us to understand newspaper articles. Drawing conclusions from the above, the inadequate levels of receptive word knowledge of first-year university students should be addressed and can no longer be neglected. Students are expected to read academic textbooks, academic articles and lecture notes and yet many of them (50%) had not reached mastery in the 5000 word level.

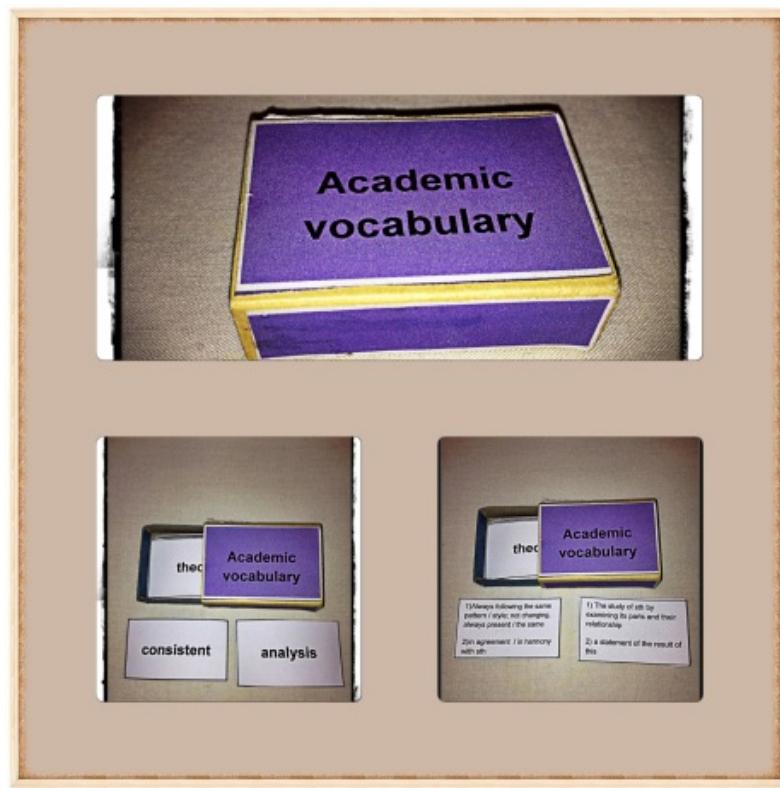
The study also shows that the students in the sample have low levels of academic literacy (§4.3), which implies that further research on academic literacy of students is needed. This also implies that students need to be given more intensive support than is currently the case. Moreover, new students should be assessed each year in order to determine their academic literacy skills when they enter university so that

those who have poor academic literacy skills can continue with intensive academic training. It is also necessary that research be done to determine the best ways to improve the academic literacy of first year students at the university.

The study suggests that explicit vocabulary instruction, vocabulary learning strategy instruction, as well as reading positively affect vocabulary development. Consequently, a vocabulary programme should be incorporated into existing programmes. Reading texts should be selected based on mid frequency words and academic vocabulary. Despite the fact that it would not be possible to teach all the words that students have to know at tertiary level of education, reading appropriate texts and getting exposure to the relevant words will aid vocabulary development. Similarly, there is a vast number of academic words and it would not be practically possible to instruct all 570 headwords in a semester or one year module. I propose that students read more general academic texts which do not contain too many technical words in order to get exposure to these general academic words. Lastly, vocabulary learning strategies such as the keyword approach, word part strategy, word card strategy, and the dictionary among others, should be explicitly taught to enable students to use the most suitable strategy and work on learning important vocabulary independently. The dictionary should however be one of the earliest strategies taught as students start using the dictionary more regularly once they realise the potential of using this book.

The word card strategy produced positive results in remembering words and could be used in the current context. There are 60 word families in each of the sub lists of the AWL except sub list 10 which only contains 30 word families. The match box used in the study could be expanded on to include all the words in a particular sub list. For example, if the headwords for each sub list are divided into three boxes (3 x match boxes / sublist), students could borrow a match box for a maximum of two weeks and use it to learn the 20 words and definitions in each match box. Figure 6.1 illustrates the match box used in the study.

**Figure 6.1 Example of match box used**



Knowledge of word families can also be promoted if students are required to enter at least the noun, verb, adjective and adverb of a new word instead of just the new word in their note books. This could ultimately have a spin-off effect on vocabulary size and academic literacy.

In addition, extensive reading should be formally integrated into the academic support programmes at the Language Centre. Currently, students are expected to read one novel or play per year which does not suffice. During the intervention the implicit group read short stories which were collected and placed in a file. Students could select a story and read it silently. This concept can be applied to the current situation but it is vital that the reading is structured and monitored, for example, monitoring forms can be places in files where students record all the articles they read. Free stories are available on the Internet and these can be printed and placed in files for students to use. This activity can take place in the Writing Excellence Unit at the Centre that is currently used for writing tutoring. Students could then also use this quiet space to do silent reading of texts they selected themselves. In addition to files containing short stories, such as abridged versions of popular literature by, for example, Cambridge and Longman collections, I propose that articles from various newspapers also be copied or downloaded and

placed in files labeled non-fiction. Exposure to the latter genre will be beneficial to the student in many ways, and vocabulary development can occur incidentally.

In addition to the above, the duration of a vocabulary programme at university level should be as long as the English programme, for example a semester for semester modules or a year for year modules so that there is enough time for word learning to take root.

Another implication of the study is the realization that the current vocabulary assessment in tests and examinations at the Language Centre need to be revised. The purpose of testing is significant as vocabulary size and depth are different concepts and different tests can be used depending on the objective of the assessment.

### **6.6.2 Implications for vocabulary instruction at schools**

The preceding section focused on the implications for the lecturers and students at the Language Centre, University of Namibia. The paragraphs below focus on implications beyond the university, i.e. on English classrooms at schools.

The inadequate word levels of the students are a concern and it is recommended that active vocabulary development starts at school level. A similar vocabulary programme can be implemented at schools (primary and secondary) albeit using reading texts and vocabulary strategies appropriate for the level of the students, as well as using appropriate words for their level.

In the Ministry of Education ESL Junior Secondary Phase (Grades 8-10) syllabus, and the Namibia Senior Secondary Certificate (NSSC) ordinary and higher level syllabi (Grades 11-12), vocabulary learning and teaching is minimal. Table 6.1 provides a summary of the objectives in these syllabi and the objectives (or lack thereof) pertaining to vocabulary are highlighted below.

**Table 6.1 Summary of objectives in ESL syllabi**

Syllabi	Grade	Skills	Total no of Objectives	Vocabulary objectives
<b>ESL Junior secondary Phase</b>	8-10	Listening & Writing	9	One objective: Use appropriate vocabulary for different situations
		Reading	13	No objectives on vocabulary learning
		Grammar Usage	4	One objective: Use appropriate vocabulary effectively in different contexts
<b>NSSE ESL – Ordinary level</b>	11-12	Listening	6	No objectives on vocabulary learning

		Speaking	10	No objectives on vocabulary learning, except for on word stress
		Reading	4	No objectives on vocabulary learning
		Writing	6	One objective: Use appropriate vocabulary in different context, namely in personal, social & academic situations
		Language Usage	1	No objectives on vocabulary learning
<b>NSSE ESL – Higher level</b>	<b>11-12</b>	<b>Listening &amp; Speaking</b>	<b>10</b>	<b>One objective: Use appropriate vocabulary in different situations</b>
		Reading	5	No objectives on vocabulary learning
		Writing	8	One objective: Use appropriate & effective vocabulary in different situations
		Language Usage	3	One objective: Use vocabulary in different contexts

In general, learners should be able to use a wide variety of words in speaking and writing; use appropriate context-specific vocabulary; and be able to explain words and phrases in context. Teachers should start developing vocabulary early and set up vocabulary goals to meet at each grade level. These goals should be in the curriculum indicating the norms for each grade level. Namibia could follow South Africa's example by including the number of words learners should know for each grade in their curricula (Department of Basic Education 2015).

Besides setting norms, classroom practices with regard to vocabulary building should be effective. But just how effectively have words been taught in Namibian schools? Teachers are not given guidance on how to teach and assess vocabulary in the syllabi. There is, as a result, a need to further research teachers' beliefs about vocabulary acquisition and ways to include vocabulary learning and teaching in ESL syllabi from Grade 8 to 12 via in-service teacher training.

One of the implications of the study is that it shows the significant role vocabulary plays in language learning and teaching. Despite the importance of vocabulary knowledge in reading, for example, there is no specific objective pertaining to vocabulary in the reading skills in the ESL syllabi. Further research is vital to find ways in which vocabulary is adequately addressed at school, as well as to find ways to encourage vocabulary development at secondary level of education.

Consequently, pre-service and in-service teacher training should be implemented for ESL teachers to introduce them to current trends in vocabulary learning and teaching, as well as emphasize the significance of word knowledge. English language teachers should be familiarized with vocabulary

levels tests to ascertain the vocabulary size of the learners and implement appropriate vocabulary programmes to supplement the syllabi.

Namibia does not have a prominent reading culture and this could contribute to the low levels of vocabulary knowledge and size established by this study. Extensive reading, with all its benefits, should be encouraged at schools in order to develop and increase knowledge of high frequency words. If this is taken up seriously and done systematically, then students entering tertiary level will be more likely to have the expected vocabulary size to cope with higher education and succeed in their academic studies.

## **6.7 Suggestions for further research**

There appears to be an absence of research in vocabulary teaching and learning in the country, as well as research into the relationship between word knowledge and academic literacy. Research in the country primarily focuses on English teacher education, code-switching, the language policy and reading in ESL. There is a gap in vocabulary research in Namibia; hence a brief discussion follows of areas in which research could be conducted:

- One of the implications of the study is that the findings indicate that the students in the sample group have low levels of academic literacy (§4.3). On the grounds that the latter is considered a strong predictor of academic success (Weideman 2012b), more research is needed to better understand the concept of academic literacy in the Namibian context, as well as to determine possible ways to improve the academic literacy levels of undergraduate students. At present, the academic literacy of students entering university is not assessed, so there are no systematic ways of determining in what way academic literacy improves during the course of the year and whether support programmes actually make a significant difference. In addition, a need exists to design and test instruments measuring academic literacy levels. Valid and reliable measurements would ensure empirical evidence to support the development of academic literacy.
- Further research into the relationship between vocabulary size and depth, especially in terms of discrete word knowledge and knowledge of multiword phrases, specifically of academic words, and academic literacy need to be conducted.
- More research on receptive and productive knowledge is vital to vocabulary learning and teaching in the country. Comparisons on performance in receptive and productive VLT would

help to give a more realistic picture of how students use vocabulary and whether this correlates with academic literacy.

- The relevance of mid frequency, academic vocabulary and academic literacy in the formal education system is well established and should not be a neglected area in applied linguistics research in the country. Research into how best these words can be learned in Namibian classrooms and lectures could have positive spin-offs for vocabulary building and academic literacy.

## 6.8 Conclusion

The study implemented two different vocabulary programmes to see whether they would make a difference to the vocabulary development and academic literacy of undergraduate students at the University of Namibia. The empirical findings contribute significantly to a gap in vocabulary research in the country.

Even though no conclusive relationship was established between academic word knowledge and academic literacy, these concepts remain important in the local context. First year students, particularly those who obtained a D symbol for ESL (NSSC) and those who were admitted to UNAM through the Mature Age Entry Programme, need intensive academic literacy training and regular visits to the Writing Excellence Unit. This has direct implications on the Language Centre and should be addressed in the very near future.

In addition to improving academic literacy, vocabulary development must become a priority in the classroom. Consistent low levels of vocabulary knowledge are an unnecessary hindrance in effective language use in the local situation. The role of academic vocabulary in the discourse of the university is highly significant and time spent on enhancing not only receptive knowledge of these words but also productive knowledge of academic words is worthwhile and meaningful. Furthermore, explicit vocabulary strategy instruction should be invested in and extensive reading and its benefits to word knowledge should be at the heart of the Centre's activities.

Time, effort and money should be invested in determining the word levels of students, not only at university, but at junior secondary level already. Word level tests are freely available on the Internet to download or complete. Consequently, appropriate measures can be taken to address any limitations and

can help students attain full mastery of a specific level, be it in the form of extensive reading or vocabulary instruction.

Language use (receptive & productive) is reliant on word knowledge and vocabulary can no longer be neglected from English language teaching and learning contexts in Namibia. The study has contributed to an area which should rightfully take its place in English classrooms throughout the country; an area that if promoted, will positively affect the education sector in Namibia.

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## Appendix A

# UNIVERSITY OF NAMIBIA

Private Bag 13301, 340 MandumeNdemufayo Avenue, Pioneerspark, Windhoek, Namibia

## LANGUAGE CENTRE

Tel: 061- 206 3940

Fax: 061-206 3943

16 May 2011

J. Izaks

University of Namibia

Windhoek

Dear Ms Izaks

### **Re: Permission to use students for research study**

Your request to use the students attending the English for General Communication (ULEG 2410) course as participants in your research study has reference. In addition, I am also aware that the research study is a requirement for your Masters in Linguistics dissertation.

In light of the above, permission is granted for you to use students as subjects to participate in the proposed research study.

The intended research focuses specifically on vocabulary learning and teaching and is an important aspect of language teaching. Moreover, the Language Centre can benefit from the findings of the research.

Yours sincerely

*M.N.Nakale*

Mr M. Nakale  
Director  
Language Centre  
University of Namibia

## Appendix B

### Timetable: Research Study 2011

#### Intervention Programme

	Monday	Tuesday	Wednesday	Thursday	Friday
07:30 - 08:30			C SLOT		C SLOT
08:30 - 09:30		C SLOT	Intervention	C SLOT	
09:30 – 10:30	D SLOT	D SLOT	Intervention		D SLOT
10:30 – 11:30	Intervention			D SLOT	
11:30 – 12:30	Intervention				
12:30 – 13:30					
13:30 – 14:30					
14:30 – 15:30					
15:30 – 16:30					

## **Appendix C**

**(Pretest time)**

### **Vocabulary Questionnaire**

Dear Student,

I would like to find out what students' attitudes are towards vocabulary and how they learn new vocabulary. I would like to use the data I collect from you to reinforce the importance of vocabulary knowledge in language proficiency.

I will be grateful if you could take some of your precious time to assist me in this research study, by completing the following questionnaire.

This research is purely academic and the information obtained from you will be treated as confidential.

#### **INSTRUCTIONS**

- 1. Please complete the attached Vocabulary Questionnaire by indicating your response with a tick (✓) in the appropriate box.**
- 2. Answer the questions in the spaces provided.**
- 3. You are kindly requested to respond to all questions.**
- 4. Please answer each question as honestly as you can, and please write down your own answers and not what you think I might want you to write. I would like to find out how you learn new words, what you do when you read or hear an unfamiliar word and what your opinions are regarding the importance of vocabulary in your studies.**
- 5. Please return the completed questionnaire to your lecturer.**
- 6. Your individual opinions will be valued.**
- 7. Please remember to write your student number in the space provided.**

Thank you for your assistance and cooperation.

**J. Izaks**

Tel: 206 3885

## Vocabulary Questionnaire

**Student Number:** \_\_\_\_\_

**Age** (Tick next to appropriate answer):

Under 20	1
20 – 29	2
30 – 39	3
40 – 49	4
50- or older	5

**Gender** (Tick next to appropriate answer):

Male	1
Female	2

**Region in which you completed secondary school** (Tick next to the appropriate answer):

Caprivi Region	1
Erongo Region	2
Hardap Region	3
Karas Region	4
Kavango Region	5
Khomas Region	6
Kunene Region	7
Ohangwena Region	8
Omaheke Region	9
Omusati Region	10
Oshana Region	11
Oshikoto Region	12
Otjozondjupa Region	13

**Write down the first language you learned as a child:**

---

**Write down the degree or diploma you are registered for:**

**Faculty you are registered in** (Tick next to the appropriate answer):

Agriculture and Natural Resources	1
Economics and Management Science	2
Education	3
Engineering and Information Technology	4
Humanities and Social Sciences	5
Law	6
Medical and Health Sciences	7
Science	8

1. **How important do you think vocabulary knowledge is in being proficient in English?** (Tick next to appropriate answer)

Very important	1
Not that important	2
Other aspects of language are more important. Which? _____	3
I don't know.	4

2. **How do you feel about your knowledge of words in English?** (Tick next to appropriate answer)

I know more than about 5000 words	1
I know approximately between 3000 and 5000 words	2
I know approximately 2000 words	3
I know enough	4
I don't think I know enough	5
I don't know	6

3. **Place a tick in one of the following to indicate your attitude to the statements.**

**3.1 I pronounce words correctly.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.2 I spell words correctly.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.3 I know how to combine words to form accurate sentences.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.4 I know the different meanings of words found in different contexts.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.5 I know how words are used together (e.g. which prepositions are used with particular verbs or which verbs and nouns are used together).**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**4. In which of the following English skills do you experience difficulties when using words?**

Speaking	1
Writing	2
None of the above	3

**5. In which of the following English skills do you experience difficulties when understanding words?**

Listening	1
Reading	2
None of the above	3

**6. Do you have a vocabulary storage system, i.e. a way that you record words for later use?**

Yes	1
No	2

**7. If you answered ‘Yes’ to Question 6 continue to answer questions 8 – 12. If you answered ‘No’, skip questions 8 – 12 and proceed to Question 13.**

- 8. What form does your vocabulary storage system take, i.e. which of the following do you use to store vocabulary? (Make a tick next to any relevant answer)**

A notebook	1
Index cards	2
Loose pages	3
Writing in the margin of books	4
Any other?	5
Please specify: _____	

- 9. How do you organize words in your vocabulary storage system?**

Alphabetically	1
According to meaning groups	2
As they come up in class	3
According to parts of speech	4
I don't organize words.	5

- 10. What information is noted in your vocabulary storage system?**

Just the word is written down	1
The word and its meaning	2
The word and its translation	3
The pronunciation of the word	4
Synonyms of the word	5
Examples of the words in a sentence	6
Word and parts of speech	7
None of the above	8

- 11. How do you use your vocabulary storage system?**

For learning new words? by heart / rote learn	1
For reference	2
Like a personal dictionary	3
Any other? Please specify:	4

_____	_____
-------	-------

**12. How often do you use and consult your vocabulary storage system?**

Very often (every day)	1
Often (weekly)	2
Once in a while (once a month)	3
Seldom	4
I forget to consult it	5

**13. With which of the following vocabulary learning strategies are you familiar? (Tick all relevant answers)**

I guess the meaning of the words by looking at what occurs before and/or after a word. (contextual clues)	1
I study the morphemes (the smallest unit with meaning into which a word can be divided, e.g. <i>unfriendly</i> – un =prefix, -ly = suffix. (Word morphology / word part analysis)	2
I use words designed to help me remember, e.g. SPIDER = solving problems, practical work, investigation, discussion, exposition, routine skills. (Mnemonic devices)	3
I think of a familiar place, such as a street, and mentally place words to be remembered in the locations.(Loci)	4
I look at pairs of words and make associations between them. (Paired associates)	5
I think of a homophone of the word in my native language to remember a word, e.g. omulandu (Oshindonga) = policy (Key words)	6
I make a list of all the unfamiliar words I encounter in a text. (Word lists)	7
None of the above	8

**14. If you come across an unfamiliar word in a text while reading, which strategy(ies) do you use to find the meaning of the word? (Tick all relevant answers)**

I guess the meaning of the words by using the contextual clues	1
I guess the meaning of the words by using word morphology, i.e. breaking up the word into smaller parts.	2
I look up the word in a dictionary	3
I look at the glossary (if there is one)	4
I skip or ignore the word and continue reading	5

**15. What kind of dictionary do you use?**

English dictionary, i.e. a monolingual dictionary	1
Bilingual dictionary	2
Both (English and bilingual dictionary)	3

**16. When you look up a word in the dictionary what do you do with the information? (Do you write it down, where do you write it down or do you simply remember it?)**

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**17. Do you enjoy reading for study purposes?**

Very much	1
Quite a lot	2
A little	3
Not at all	4

**18. Write down a reason for the answer you ticked in Question 17.**

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**19. Which of the following do you read? (Tick next to all relevant answers)**

Newspapers	1
Magazines	2
Comics	3
Books (e.g. novels)	4
Internet websites	5
Textbooks	6
Journals	7
Short stories	8

**20. How often do you read?**

Daily	1
At least once a week	2
Often	3
Seldom	4
I don't read	5

**Thank you for your cooperation.**

## **Appendix D**

### **CONSENT FORM (IMPLICIT GROUP)**

**Dear student**

**The information in this consent form is provided so that you can decide whether you wish to participate in my research study. It is important that you understand that your participation is considered voluntary. This means that even if you agree to participate you are free to withdraw from the intervention at any time without any consequences or explanation.**

The research study is an investigation into whether a vocabulary programme has an effect on the development of vocabulary and academic literacy. In addition, it will also investigate your attitude towards vocabulary and how you learn vocabulary. For this project, you will complete two questionnaires, vocabulary levels tests (2000, 3000, 5000, 10 000 & academic vocabulary), the Tests of Academic Literacy Levels (TALL) and four short term achievement tests. You will also be expected to attend two additional hours of teaching per week from May 2011 to November 2011.

The project will attempt to answer the following questions:

- How the intervention affects vocabulary and academic literacy levels;
- Whether the vocabulary strategies taught are effective in remembering the target words;
- Whether knowledge of the academic words affects academic literacy.

It is anticipated that the results of this study will be used to supplement the Language Centre's courses. I will also share information from this study with other researchers at academic conferences and in articles.

As a participant, you will be exposed to vocabulary through reading selected texts and be required to complete worksheets. In addition, you will be expected to participate in discussions.

Your signature below indicates that you understand the above conditions of participation in this research project.

---

*Name and Student Number of  
Participant*

*Signature*

*Date*

***If you have any questions or concerns about this research study, please feel free to contact me at 206 3885 or jnizaks@unam.na***

***A copy of this consent form will be left with you, and a copy will be taken by the researcher***

## **CONSENT FORM (EXPLICIT GROUP)**

**Dear student**

**The information in this consent form is provided so that you can decide whether you wish to participate in my research study. It is important that you understand that your participation is considered voluntary. This means that even if you agree to participate you are free to withdraw from the intervention at any time without any consequences or explanation.**

The research study is an investigation into whether a vocabulary programme has an effect on the development of vocabulary and academic literacy. In addition, it will also investigate your attitude towards vocabulary and how you learn vocabulary. For this project, you will complete two questionnaires, vocabulary levels tests (2000, 3000, 5000, 10 000 & academic vocabulary), the Tests of Academic Literacy Levels (TALL) and four short term achievement tests. You will also be expected to attend two additional hours of teaching per week from May 2011 to November 2011.

The project will attempt to answer the following questions:

- How the intervention affects vocabulary and academic literacy levels;
- Whether the vocabulary strategies taught are effective in remembering the target words;
- Whether knowledge of the academic words affects academic literacy.

It is anticipated that the results of this study will be used to supplement the Language Centre's courses. I will also share information from this study with other researchers at academic conferences and in articles.

As a participant, you will be exposed to explicit teaching of selected academic words and vocabulary learning strategies. In addition, you will read academic articles and develop your knowledge of the high-frequency words.

Your signature below indicates that you understand the above conditions of participation in this research project.

---

*Name and Student Number of  
Participant*

*Signature*

*Date*

*If you have any questions or concerns about this research study, please feel free to contact me at 206 3885 or jnizaks@unam.na*

*A copy of this consent form will be left with you, and a copy will be taken by the researcher*

## Appendix E

Student number: \_\_\_\_\_

### Vocabulary levels tests (VLT)

(Schmitt, Schmitt, Clapham 2001)

This is a vocabulary test. You must choose the right word to go with each meaning. Write the number of that word next to its meaning.

#### The 2,000 word level

- |          |                             |
|----------|-----------------------------|
| 1 copy   |                             |
| 2 event  | _____ end or highest point  |
| 3 motor  | _____ this moves a car      |
| 4 pity   | _____ thing made to be like |
| 5 profit | another                     |
| 6 tip    |                             |

- |            |                                |
|------------|--------------------------------|
| 1 accident |                                |
| 2 debt     | _____ loud deep sound          |
| 3 fortune  | _____ something you must pay   |
| 4 pride    | _____ having a high opinion of |
| 5 roar     | yourself                       |
| 6 thread   |                                |

- |           |                                  |
|-----------|----------------------------------|
| 1 coffee  |                                  |
| 2 disease | _____ money for work             |
| 3 justice | _____ a piece of clothing        |
| 4 skirt   | _____ using the law in the right |
| 5 stage   | way                              |
| 6 wage    |                                  |

- |           |                      |
|-----------|----------------------|
| 1 clerk   |                      |
| 2 frame   | _____ a drink        |
| 3 noise   | _____ office worker  |
| 4 respect | _____ unwanted sound |
| 5 theatre |                      |
| 6 wine    |                      |

- |               |                         |
|---------------|-------------------------|
| 1 dozen       |                         |
| 2 empire      | _____ chance            |
| 3 gift        | _____ twelve            |
| 4 opportunity | _____ money paid to the |
| 5 relief      | government              |
| 6 tax         |                         |

- |            |                            |
|------------|----------------------------|
| 1 admire   |                            |
| 2 complain | _____ make wider or longer |

3 fix \_\_\_\_\_ bring in for the first time  
4 hire \_\_\_\_\_ have a high opinion of someone  
5 introduce \_\_\_\_\_  
6 stretch

1 arrange \_\_\_\_\_ grow  
2 develop \_\_\_\_\_ put in order  
3 lean \_\_\_\_\_ like more than something else  
4 owe \_\_\_\_\_  
5 prefer \_\_\_\_\_  
6 seize

1 blame \_\_\_\_\_ make  
2 elect \_\_\_\_\_ choose by voting  
3 jump \_\_\_\_\_ become like water  
4 manufacture \_\_\_\_\_  
5 melt  
6 threaten

1 ancient \_\_\_\_\_ not easy  
2 curious \_\_\_\_\_ very old  
3 difficult \_\_\_\_\_ related to God  
4 entire \_\_\_\_\_  
5 holy \_\_\_\_\_  
6 social

1 bitter \_\_\_\_\_ beautiful  
2 independent \_\_\_\_\_ small  
3 lovely \_\_\_\_\_ liked by many people  
4 merry \_\_\_\_\_  
5 popular \_\_\_\_\_  
6 slight

### The 3,000 word level

1 bull \_\_\_\_\_ formal and serious manner  
2 champion \_\_\_\_\_ winner of a sporting event  
3 dignity \_\_\_\_\_ building where valuable objects are shown  
4 hell \_\_\_\_\_  
5 museum \_\_\_\_\_  
6 solution

1 blanket \_\_\_\_\_ holiday  
2 contest \_\_\_\_\_ good quality  
3 generation \_\_\_\_\_ wool covering used on beds  
4 merit \_\_\_\_\_  
5 plot \_\_\_\_\_  
6 vacation

1 comment	
2 gown	long formal dress
3 import	goods from a foreign country
4 nerve	
5 pasture	part of the body which carries feeling
6 tradition	

1 administration	
2 angel	group of animals
3 frost	spirit who serves God
4 herd	managing business and affairs
5 fort	
6 pond	

1 atmosphere	
2 counsel	advice
3 factor	a place covered with grass
4 hen	female chicken
5 lawn	
6 muscle	

1 abandon	
2 dwell	live in a place
3 oblige	follow in order to catch
4 pursue	leave something
5 quote	permanently
6 resolve	

1 assemble	
2 attach	look closely
3 peer	stop doing something
4 quit	cry out loudly in fear
5 scream	
6 toss	

1 drift	
2 endure	suffer patiently
3 grasp	join wool threads together
4 knit	hold firmly with your hands
5 register	
6 tumble	

1 brilliant	
2 distinct	thin
3 magic	steady
4 naked	without clothes
5 slender	
6 stable	

- |             |                                 |
|-------------|---------------------------------|
| 1 aware     |                                 |
| 2 blank     | _____ usual                     |
| 3 desperate | _____ best or most important    |
| 4 normal    | _____ knowing what is happening |
| 5 striking  |                                 |
| 6 supreme   |                                 |

### The 5,000 word level

- |            |                                    |
|------------|------------------------------------|
| 1 analysis |                                    |
| 2 curb     | _____ eagerness                    |
| 3 gravel   | _____ loan to buy a house          |
| 4 mortgage | _____ small stones mixed with sand |
| 5 scar     |                                    |
| 6 zeal     |                                    |

- |           |                                      |
|-----------|--------------------------------------|
| 1 cavalry |                                      |
| 2 eve     | _____ small hill                     |
| 3 ham     | _____ day or night before a holiday  |
| 4 mound   |                                      |
| 5 steak   | _____ soldiers who fight from horses |
| 6 switch  |                                      |

- |              |  |
|--------------|--|
| 1 circus     |  |
| 2 jungle     | _____ musical instrument                   |
| 3 nomination | _____ seat without a back or arms          |
| 4 sermon     |  |
| 5 stool      | _____ speech given by a priest in a church |
| 6 trumpet    |  |

- |             |                           |
|-------------|---------------------------|
| 1 artillery |                           |
| 2 creed     | _____ a kind of tree      |
| 3 hydrogen  | _____ system of belief    |
| 4 maple     | _____ large gun on wheels |
| 5 pork      |                           |
| 6 streak    |                           |

- |             |  |
|-------------|--|
| 1 chart     |  |
| 2 forge     | _____ map                                    |
| 3 mansion   | _____ large beautiful house                  |
| 4 outfit    | _____ place where metals are made and shaped |
| 5 sample    |  |
| 6 volunteer |  |

- |               |                            |
|---------------|----------------------------|
| 1 contemplate |                            |
| 2 extract     | _____ think about deeply   |
| 3 gamble      | _____ bring back to health |
| 4 launch      | _____ make someone angry   |
| 5 provoke     |                            |

6 revive	
1 demonstrate	
2 embarrass	_____ have a rest
3 heave	_____ break suddenly into small
4 obscure	pieces
5 relax	_____ make someone feel shy or
6 shatter	nervous

1 correspond	
2 embroider	_____ exchange letters
3 lurk	_____ hide and wait for someone
4 penetrate	_____ feel angry about something
5 prescribe	
6 resent	

1 decent	
2 frail	_____ weak
3 harsh	_____ concerning a city
4 incredible	_____ difficult to believe
5 municipal	
6 specific	

1 adequate	
2 internal	_____ enough
3 mature	_____ fully grown
4 profound	_____ alone away from other
5 solitary	things
6 tragic	

### The 10,000 word level

1 alabaster	
2 chandelier	_____ small barrel
3 dogma	_____ soft white stone
4 keg	_____ tool for shaping wood
5 rasp	
6 tentacle	

1 benevolence	
2 convoy	_____ kindness
3 lien	_____ set of musical notes
4 octave	_____ speed control for an
5 stint	engine
6 throttle	

1 bourgeois	
2 brocade	_____ middle class people
3 consonant	_____ row or level of something

4 prelude \_\_\_\_\_ cloth with a pattern or gold  
5 stupor \_\_\_\_\_ or silver threads  
6 tier

1 alcove \_\_\_\_\_  
2 impetus \_\_\_\_\_ priest  
3 maggot \_\_\_\_\_ release from prison early  
4 parole \_\_\_\_\_ medicine to put on wounds  
5 salve  
6 vicar

1 alkali \_\_\_\_\_  
2 banter \_\_\_\_\_ light joking talk  
3 coop \_\_\_\_\_ a rank of British nobility  
4 mosaic \_\_\_\_\_ picture made of small pieces  
5 stealth \_\_\_\_\_ of glass or stone  
6 viscount

1 dissipate \_\_\_\_\_  
2 flaunt \_\_\_\_\_ steal  
3 impede \_\_\_\_\_ scatter or vanish  
4 loot \_\_\_\_\_ twist the body about  
5 squirm \_\_\_\_\_ uncomfortably  
6 vie

1 contaminate \_\_\_\_\_  
2 cringe \_\_\_\_\_ write carelessly  
3 immerse \_\_\_\_\_ move back because of fear  
4 peek \_\_\_\_\_ put something under water  
5 relay  
6 scrawl

1 blurt \_\_\_\_\_  
2 dabble \_\_\_\_\_ walk in a proud way  
3 dent \_\_\_\_\_ kill by squeezing someone's  
4 pacify \_\_\_\_\_ throat  
5 strangle \_\_\_\_\_ say suddenly without  
6 swagger \_\_\_\_\_ thinking

1 illicit \_\_\_\_\_  
2 lewd \_\_\_\_\_ immense  
3 mammoth \_\_\_\_\_ against the law  
4 slick \_\_\_\_\_ wanting revenge  
5 temporal  
6 vindictive

1 indolent \_\_\_\_\_  
2 nocturnal \_\_\_\_\_ lazy

- 3 obsolete \_\_\_\_\_ no longer used  
 4 torrid \_\_\_\_\_ clever and tricky  
 5 translucent  
 6 wily

### **Academic Vocabulary**

- 1 area  
 2 contract \_\_\_\_\_ written agreement  
 3 definition \_\_\_\_\_ way of doing something  
 4 evidence \_\_\_\_\_ reason for believing  
 5 method \_\_\_\_\_ something is or is not true  
 6 role

- 1 debate  
 2 exposure \_\_\_\_\_ plan  
 3 integration \_\_\_\_\_ choice  
 4 option \_\_\_\_\_ joining something into a whole  
 5 scheme  
 6 stability

- 1 access  
 2 gender \_\_\_\_\_ male or female  
 3 implementation \_\_\_\_\_ study of the mind  
 4 license \_\_\_\_\_ entrance or way in  
 5 orientation  
 6 psychology

- 1 accumulation  
 2 edition \_\_\_\_\_ collecting things over time  
 3 guarantee \_\_\_\_\_ promise to repair a broken product  
 4 media  
 5 motivation \_\_\_\_\_ feeling a strong reason or need to do something  
 6 phenomenon

- 1 adult  
 2 exploitation \_\_\_\_\_ end  
 3 infrastructure \_\_\_\_\_ machine used to move people or goods  
 4 schedule  
 5 termination \_\_\_\_\_ list of things to do at certain times  
 6 vehicle

- 1 alter  
 2 coincide \_\_\_\_\_ change  
 3 deny \_\_\_\_\_ say something is not true  
 4 devote \_\_\_\_\_ describe clearly and exactly  
 5 release  
 6 specify

1 correspond		
2 diminish	_____	keep
3 emerge	_____	match or be in agreement
4 highlight		with
5 invoke	_____	give special attention
6 retain		to something

1 bond		
2 channel	_____	make smaller
3 estimate	_____	guess the number or size
4 identify		of something
5 mediate	_____	recognizing and naming
6 minimize		a person or thing

1 explicit		
2 final	_____	last
3 negative	_____	stiff
4 professional	_____	meaning 'no' or 'not'
5 rigid		
6 sole		

1 abstract		
2 adjacent	_____	next to
3 controversial	_____	added to
4 global	_____	concerning the whole world
5 neutral		
6 supplementary		

## Appendix F

### Short-term achievement test 1 (STAT 1)

**Name:** \_\_\_\_\_

**Student number:** \_\_\_\_\_

**First language:** \_\_\_\_\_

**Write your first language translation for the following words. Please write on the lines provided.**

- |               |       |     |
|---------------|-------|-----|
| 1. Method     | _____ | (1) |
| 2. Establish  | _____ | (1) |
| 3. Concept    | _____ | (1) |
| 4. Process    | _____ | (1) |
| 5. Formulate  | _____ | (1) |
| 6. Assessment | _____ | (1) |
| 7. Individual | _____ | (1) |
| 8. Context    | _____ | (1) |
| 9. Benefit    | _____ | (1) |
| 10. Approach  | _____ | (1) |

**TOTAL:** \_\_\_\_\_ / 10

## Appendix G

### Short-term achievement test 2 (STAT 2)

Name: \_\_\_\_\_

Student number: \_\_\_\_\_

Choose the correct meaning of the underlined words in the sentences by circling the appropriate letter.

1. The university recently initiated a cleaning campaign where designated areas were cleaned by staff and students.
  - A. Measured surfaces
  - B. Regions of the city
  - C. Parts of place used for specific needs
  - D. Subject ranges of an activity

(1)
2. Access to information and communication technology (ICT) remains constitutive of the frustrations experienced by students at the university.
  - A. Being equivalent
  - B. Being components of something
  - C. Establishing something
  - D. Not included in the components of something

(1)
3. The average adolescent can be defined by common speech traits, mannerisms and fashion trends.
  - A. To describe the exact nature and extent of something
  - B. To state the exact meaning of a phrase
  - C. To show an outline clearly
  - D. To illustrate a shape accurately

(1)
4. Many first year students take quite a while to adapt to the university environment.
  - A. The natural conditions in which people live
  - B. The conditions affecting a person's life
  - C. The circumstances predicting a person's life
  - D. The conditions people face on a daily basis

(1)
5. The current income of student assistants has increased by 7%.
  - A. Payment as interest on investments
  - B. Payment for work
  - C. Payment from the government
  - D. Payment of tax dividends

(1)
6. There are several stages involved in the annual registration process at the college.

- A. Include something or somebody as a part
  - B. A result of something
  - C. To make somebody take part in an activity
  - D. To make somebody suffer (1)
7. One of the significant issues covered in the Contemporary Social Issues module is gender violence.
- A. A regular series of publications
  - B. The supply or release of items for sale
  - C. The action of coming, going and flowing out
  - D. An important topic of discussion (1)
8. The part time vacancies available for undergraduate students often result in many students being periodically unemployed.
- A. For a portion of time in civilization
  - B. For lengths of time daily
  - C. For a lesson in school
  - D. At intervals (1)
9. Students at the university are expected to be actively involved in research during their final year of study.
- A. To withdraw from academic activities
  - B. A superficial analysis of new facts
  - C. An investigation of an existing event
  - D. A careful investigation or study (1)
10. The writing section appears to be problematic for students because of their limited vocabulary knowledge.
- A. A part that fits together to make a structure
  - B. A part of something unique
  - C. A department of an organization
  - D. Any part into which something is divided (1)

**TOTAL \_\_\_\_\_/10**

## Appendix H

### Short-term achievement test 3 (STAT 3)

Name: \_\_\_\_\_

Student number: \_\_\_\_\_

Choose the right word to go with each meaning. Write the number of that word next to its meaning.

1. interpret

\_\_\_\_\_ detailed and exact

2. principle

\_\_\_\_\_ studying something

3. analysis

\_\_\_\_\_ important

4. significant

5. assume

6. specific

1. structural

\_\_\_\_\_ not changing

2. available

\_\_\_\_\_ change from something to something

3. vary

\_\_\_\_\_ relating to how something is organised

4. achieve

5. consistent

6. contract

1. authority

\_\_\_\_\_ concerned with the law

2. legal

\_\_\_\_\_ set of argued ideas

3. data

\_\_\_\_\_ facts or information

4. theory

5. derive

6. percent

1. evidence

\_\_\_\_\_ to spread something

2. distribute

\_\_\_\_\_ application of something

3. labour

\_\_\_\_\_ proof of something

4. economy

5. administration

6. estimate

1. legislate

\_\_\_\_\_ something providing information

2. proceed

\_\_\_\_\_ to make laws

3. source

\_\_\_\_\_ important

4. require

5. role

6. major

**TOTAL \_\_\_\_\_ / 10**

## **Appendix I**

**Name :** \_\_\_\_\_

**Student Number:** \_\_\_\_\_

### **Worksheet 1**

#### **Implicit group**

##### ***Soul Researching – Vic Dulwicks and Malcolm Higgs***

**Read the text silently and answer the following questions.**

#### **Question 1**

**Choose the correct answer by circling the appropriate letter.**

- 1.1 The article is about
  - A. Intelligence
  - B. Organisational intelligence
  - C. Intelligence Quotient
  - D. Emotional Intelligence
  
- 1.2 The purpose of the article is to
  - A. Inform the readers of the importance of intelligence in the workplace
  - B. Persuade the readers to refrain from using IQ tests
  - C. Inform the readers of developments in research on emotional intelligence
  - D. Involve readers of the new concept of emotional intelligence
  
- 1.3 The register of the article is:
  - A. Formal
  - B. Semi-formal
  - C. Informal
  - D. Poetic
  
- 1.4 EQ appears to be a popular topic in the following fields;
  - A. Education and Sociology
  - B. Physical Science and Psychology
  - C. Education and Physiology
  - D. Psychology and Education

#### **Question 2**

**Answer the following questions using your own words.**

- 2.1 What, according to the text, does IQ measure?

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2.2 What according to Goleman is a strong predictor of success?

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2.3 Using your own words explain what the underlined phrases mean.

2.3.1 Importantly, it has provided a competence-based measure of emotional intelligence that is both valid and reliable.

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2.3.2 So, if organizations believe that they can gain a competitive edge by focusing on their people, they now have a method of expressing existing levels of emotional intelligence.

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2.3.3 There is broad agreement and that traditional ‘pen and pencil’ tests are inappropriate for measuring it.

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### Question 3

**Paraphrase the following statement.**

It is important to consider whether this new interest in emotional intelligence is more rooted in the desire to achieve a quick fix, or whether it is more fundamentally grounded.

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## **Appendix J**

**Name :** \_\_\_\_\_

**Student Number:** \_\_\_\_\_

### **Worksheet 2**

#### **Implicit group**

#### **Being cool or being good: researching mobile phones in Mozambique**

**Answer the following questions.**

1. What is the article about?
2. Why did the researcher spend so much time with the youth in Inhambane?
3. What were the consequences of her relationship with the young people?
4. List the changes that the researcher observed when she came back to Inhambane.
5. What was she researching?
6. Describe the role of a stereotypical good wife in Inhambane.
7. What do the following underlined phrases mean?
  - 7.1 "My research was going great, yet I was left with mixed feelings." (p. 6)
  - 7.2 "However, the "communication revolution" currently underway in southern Mozambique appears to be occasioning quite the opposite..." (p. 8)
8. Comment on the gender division in Inhambane.
9. What is the relevance of the song on pages 9 and 10?
10. How has mobile phone use affected the people in the community the researcher studied?

## **Appendix K**

**Name :** \_\_\_\_\_

**Student Number:** \_\_\_\_\_

### **Worksheet 3**

#### **Implicit group**

*Media coverage of Celebrity DIUs: teaching moments or problematic social modelling*

- Read the text silently and summarise the main points in the article.
- Class discussion:
  - Describe drinking and driving among youths in Namibia.
  - Discuss the conclusion reached at the end of the article.

## **Appendix L (Posttest time)**

### **Vocabulary Questionnaire**

Dear Student,

I would like to find out whether students' attitudes have been influenced by the vocabulary intervention programme. I would like to use the data I collect from you to reinforce the importance of vocabulary knowledge in language proficiency. It is therefore important that you answer honestly.

I will be grateful if you could take some of your precious time to assist me in this research study, by completing the following post questionnaire.

This research is purely academic and the information obtained from you will be treated as confidential.

#### **INSTRUCTIONS**

- 8. Please complete the attached Vocabulary Questionnaire by indicating your response with a tick (✓) in the appropriate box.**
- 9. Answer the questions in the spaces provided.**
- 10. You are kindly requested to respond to all questions.**
- 11. Please answer each question as honestly as you can, and please write down your own answers and not what you think I might want you to write. I would like to find out how you learn new words, what you do when you read or hear an unfamiliar word and what your opinions are regarding the intervention programme.**
- 12. Please return the completed questionnaire to your lecturer.**
- 13. Your individual opinions will be valued.**
- 14. Please remember to write your student number in the space provided.**

Thank you for your assistance and cooperation.

**J. Izaks**

Tel: 206 3885

## Vocabulary Questionnaire

**Student Number:** \_\_\_\_\_

- 1. How important do you think vocabulary knowledge is in being proficient in English? (Tick next to appropriate answer)**

Very important	1
Not that important	2
Other aspects of language are more important. Which? _____	3
I don't know.	4

- 2. How do you feel about your knowledge of words in English? (Tick next to appropriate answer)**

I know more than about 5000 words	1
I know approximately between 3000 and 5000 words	2
I know approximately 2000 words	3
I know enough	4
I don't think I know enough	5
I don't know	6

- 3. Place a tick in one of the following to indicate your attitude to the statements.**

**3.1 I pronounce words correctly.**

Strongly agree	agree	neutral	disagree	Strongly disagree
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**3.2 I spell words correctly.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.3 I know how to combine words to form accurate sentences.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.4 I know the different meanings of words found in different contexts.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.5 I know how words are used together (e.g. which prepositions are used with particular verbs or which verbs and nouns are used together).**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**4. In which of the following English skills do you experience difficulties when using words?**

Speaking	1
Writing	2
None of the above	3

**5. In which of the following English skills do you experience difficulties when understanding words?**

Listening	1
Reading	2
None of the above	3

**7. Do you have a vocabulary storage system, i.e. a way that you record words for later use?**

Yes	1
No	2

**7.1** If you answered ‘Yes’ to Question 6 continue to answer questions **8 – 12**. If you answered ‘No’, skip questions 8 – 12 and proceed to Question **13**.

**8. What form does your vocabulary storage system take, i.e. which of the following do you use to store vocabulary? (Make a tick next to any relevant answer)**

A notebook	1
Index cards	2
Loose pages	3
Writing in the margin of books	4
Any other? Please specify: _____	5

**9. How do you organize words in your vocabulary storage system?**

Alphabetically	1
According to meaning groups	2
As they come up in class	3
According to parts of speech	4
I don't organize words.	5

**10. What information is noted in your vocabulary storage system?**

Just the word is written down	1
The word and its meaning	2
The word and its translation	3
The pronunciation of the word	4
Synonyms of the word	5
Examples of the words in a sentence	6
Word and parts of speech	7
None of the above	8

**11. How do you use your vocabulary storage system?**

For learning new words? by heart / rote learn	1
For reference	2
Like a personal dictionary	3
Any other? Please specify: _____ _____	4

**12. How often do you use and consult your vocabulary storage system?**

Very often (every day)	1
Often (weekly)	2
Once in a while (once a month)	3
Seldom	4
I forget to consult it	5

- 13. With which of the following vocabulary learning strategies are you familiar? (Tick all relevant answers)**

I guess the meaning of the words by looking at what occurs before and/or after a word. (contextual clues)	1
I study the morphemes (the smallest unit with meaning into which a word can be divided, e.g. <i>unfriendly</i> – un =prefix, -ly = suffix. (Word morphology / word part analysis)	2
I use words designed to help me remember, e.g. SPIDER = solving problems, practical work, investigation, discussion, exposition, routine skills. (Mnemonic devices)	3
I think of a familiar place, such as a street, and mentally place words to be remembered in the locations.(Loci)	4
I look at pairs of words and make associations between them. (Paired associates)	5
I think of a homophone of the word in my native language to remember a word, e.g. omulandu (Oshindonga) = policy (Key words)	6
I make a list of all the unfamiliar words I encounter in a text. (Word lists)	7
None of the above	8

- 14. If you come across an unfamiliar word in a text while reading, which strategy(ies) do you use to find the meaning of the word? (Tick all relevant answers)**

I guess the meaning of the words by using the contextual clues	1
I guess the meaning of the words by using word morphology, i.e. breaking up the word into smaller parts.	2
I look up the word in a dictionary	3
I look at the glossary (if there is one)	4
I skip or ignore the word and continue reading	5

- 15. Was the vocabulary intervention programme helpful to you in developing your vocabulary?**

Yes	1
No	2
I don't know	3
None of the above	4

- 16. Write down a reason or explanation for the answer you ticked in Question 15.**

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**17. Place a tick in one of the following to indicate your attitude to the statements**

**17.1 It takes time to increase one's vocabulary size.**

Strongly agree	agree	Neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**17.2 Improving vocabulary knowledge and size takes a lot of effort.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**17.3 Students also have the responsibility to improve and increase vocabulary knowledge.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**18. Which of the following vocabulary learning strategies taught during the intervention is most useful to you? (Tick all relevant answers)**

The Keyword Approach (Strategy 1)	1
The Word Part Strategy (Strategy 2)	2
The Word Card Strategy (Strategy 3)	3
The Dictionary (Strategy 4)	4
None of the above	5

**19. Write down an explanation for the answer(s) you ticked in Question 18.**

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**Thank you for your cooperation.**

## **Appendix M**

**(Posttest time)**

### **Vocabulary Questionnaire**

Dear Student,

I would like to find out whether students' attitudes have been influenced by the vocabulary intervention programme. I would like to use the data I collect from you to reinforce the importance of vocabulary knowledge in language proficiency. It is therefore important that you answer honestly.

I will be grateful if you could take some of your precious time to assist me in this research study, by completing the following post questionnaire.

This research is purely academic and the information obtained from you will be treated as confidential.

#### **INSTRUCTIONS**

- 15. Please complete the attached Vocabulary Questionnaire by indicating your response with a tick (✓) in the appropriate box.**
- 16. Answer the questions in the spaces provided.**
- 17. You are kindly requested to respond to all questions.**
- 18. Please answer each question as honestly as you can, and please write down your own answers and not what you think I might want you to write. I would like to find out how you learn new words, what you do when you read or hear an unfamiliar word and what your opinions are regarding the intervention programme.**
- 19. Please return the completed questionnaire to your lecturer.**
- 20. Your individual opinions will be valued.**
- 21. Please remember to write your student number in the space provided.**

Thank you for your assistance and cooperation.

**J. Izaks**

Tel: 206 3885

## Vocabulary Questionnaire

**Student Number:** \_\_\_\_\_

- 1. How important do you think vocabulary knowledge is in being proficient in English? (Tick next to appropriate answer)**

Very important	1
Not that important	2
Other aspects of language are more important. Which? _____	3
I don't know.	4

- 2. How do you feel about your knowledge of words in English? (Tick next to appropriate answer)**

I know more than about 5000 words	1
I know approximately between 3000 and 5000 words	2
I know approximately 2000 words	3
I know enough	4
I don't think I know enough	5
I don't know	6

- 3. Place a tick in one of the following to indicate your attitude to the statements.**

**3.1 I pronounce words correctly.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.2 I spell words correctly.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.3 I know how to combine words to form accurate sentences.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.4 I know the different meanings of words found in different contexts.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**3.5 I know how words are used together (e.g. which prepositions are used with particular verbs or which verbs and nouns are used together).**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**4. In which of the following English skills do you experience difficulties when using words?**

Speaking	1
Writing	2
None of the above	3

**5. In which of the following English skills do you experience difficulties when understanding words?**

Listening	1
Reading	2
None of the above	3

**8. Do you have a vocabulary storage system, i.e. a way that you record words for later use?**

Yes	1
No	2

**7.1** If you answered ‘Yes’ to Question 6 continue to answer questions **8 – 12**. If you answered ‘No’, skip questions 8 – 12 and proceed to Question **13**.

**8. What form does your vocabulary storage system take, i.e. which of the following do you use to store vocabulary? (Make a tick next to any relevant answer)**

A notebook	1
Index cards	2
Loose pages	3
Writing in the margin of books	4
Any other? Please specify: _____	5

**9. How do you organize words in your vocabulary storage system?**

Alphabetically	1
According to meaning groups	2
As they come up in class	3
According to parts of speech	4
I don't organize words.	5

**10. What information is noted in your vocabulary storage system?**

Just the word is written down	1
The word and its meaning	2
The word and its translation	3
The pronunciation of the word	4
Synonyms of the word	5
Examples of the words in a sentence	6
Word and parts of speech	7
None of the above	8

**11. How do you use your vocabulary storage system?**

For learning new words? by heart / rote learn	1
For reference	2
Like a personal dictionary	3
Any other? Please specify: _____ _____	4

**12. How often do you use and consult your vocabulary storage system?**

Very often (every day)	1
Often (weekly)	2
Once in a while (once a month)	3
Seldom	4
I forget to consult it	5

- 13. With which of the following vocabulary learning strategies are you familiar? (Tick all relevant answers)**

I guess the meaning of the words by looking at what occurs before and/or after a word. (contextual clues)	1
I study the morphemes (the smallest unit with meaning into which a word can be divided, e.g. <i>unfriendly</i> – un =prefix, -ly = suffix. (Word morphology / word part analysis)	2
I use words designed to help me remember, e.g. SPIDER = solving problems, practical work, investigation, discussion, exposition, routine skills. (Mnemonic devices)	3
I think of a familiar place, such as a street, and mentally place words to be remembered in the locations.(Loci)	4
I look at pairs of words and make associations between them. (Paired associates)	5
I think of a homophone of the word in my native language to remember a word, e.g. omulandu (Oshindonga) = policy (Key words)	6
I make a list of all the unfamiliar words I encounter in a text. (Word lists)	7
None of the above	8

- 14. If you come across an unfamiliar word in a text while reading, which strategy(ies) do you use to find the meaning of the word? (Tick all relevant answers)**

I guess the meaning of the words by using the contextual clues	1
I guess the meaning of the words by using word morphology, i.e. breaking up the word into smaller parts.	2
I look up the word in a dictionary	3
I look at the glossary (if there is one)	4
I skip or ignore the word and continue reading	5

- 15. Was the vocabulary intervention programme helpful to you in developing your vocabulary?**

Yes	1
No	2
I don't know	3
None of the above	4

- 16. Write down a reason or explanation for the answer you ticked in Question 15.**

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**17. Place a tick in one of the following to indicate your attitude to the statements**

**17.1 It takes time to increase one's vocabulary size.**

Strongly agree	agree	neutral	disagree	Strongly disagree
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**17.2 Improving vocabulary knowledge and size takes a lot of effort.**

Strongly agree	agree	neutral	disagree	Strongly disagree
----------------	-------	---------	----------	-------------------

**17.3 Students also have the responsibility to improve and increase vocabulary knowledge.**

Strongly agree	agree	neutral	disagree	Strongly disagree
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**Thank you for your cooperation.**

## Appendix N

### Short-term achievement test 4 (STAT 4)

Name: \_\_\_\_\_

Student number: \_\_\_\_\_

**Choose the correct meaning of the underlined words in the sentences by circling the appropriate letter.**

1. All available money has been used.
  - A. Can be obtained
  - B. Free to see people
  - C. Ready to be used
  - D. Likely to be unoccupied
  
2. The data is still being analyzed.
  - A. Foundation
  - B. Details
  - C. Knowledge
  - D. Information
  
3. Such birds are widely distributed in Africa and Asia.
  - A. Categorized
  - B. Spread
  - C. Delivered
  - D. Administered
  
4. Ambition and hard work are two key factors that affect success.
  - A. Means
  - B. Considerations
  - C. Aspects
  - D. Occasions
  
5. Child abuse occurs in all classes of society.
  - A. Remains
  - B. Develops
  - C. Follows
  - D. Exists
  
6. Thirty percent of the people did not reply to our letter.
  - A. Commission of a hundred
  - B. Portion out of a hundred

- C. Section hundred
  - D. Hundred bonuses
7. Deciphering the code requires an expert.
- A. Affects
  - B. Calls for
  - C. Commits
  - D. Orders
8. She responded to my e-mail with a phone call.
- A. Answered
  - B. Acknowledged
  - C. Asserted
  - D. Countered
9. The Head of Department plays a significant role in developing staff to their full potential.
- A. Aspect
  - B. Place
  - C. Function
  - D. Status
10. After my investigation I reached a similar conclusion.
- A. Identical
  - B. Alike
  - C. Copied
  - D. Uniform

**TOTAL \_\_\_\_\_/10**

## **Appendix O**

Name : \_\_\_\_\_

Student Number:\_\_\_\_\_

### **Worksheet 4**

#### **Implicit group**

#### **The Social Media Revolution: Exploring the Impact on Journalism and News Media**

#### **Organizations by Ruth Harper**

- Discuss the social media revolution, your experiences, etc.
- Debate (whole class):

*Advantages and Disadvantages of Social Media*

## Appendix P1

### Soul Researching – Vic Dulwicks and Malcolm Higgs

Does emotional intelligence really exist, and, if so, can it be measured? Vic Dulwicks and Malcolm Higgs report on a study which has found that it is a factor in predicting individuals' future career success.

For years Human Resources professionals have been searching for the answers to fundamental and interrelated questions. First, can we show that paying attention to 'people skills' makes a significant difference to organizational success? Second, how can we identify individuals who have the most potential to succeed as leaders in the organisation?

Many theories, models and frame-works have been proposed that promise the answers, some which do not stand up to rigorous examination. And, while other processes – assessment centres, for instance – have been found to be valid, the perceived costs of using them are considered too great.

Recent years have seen growing interest in the concept of emotional intelligence, or "EQ", which seems to offer answers to both questions. Daniel Goleman's book, *Emotional Intelligence: Why it can matter more than IQ* (Bloomsbury Publishing, 1996) was timely, presenting ideas that resonated with the personal and organizational experience of line managers and HR professionals alike.

Both groups, faced with quantum changes, have been searching for a new way to look at the factors that account for personal and organisational success. The idea of emotional intelligence seems to offer a clear basis for understanding the difference between outstanding and average performance. But it is important to consider where this new interest is more fundamentally grounded. Illustrative of the 'holy grail' syndrome are the range of proposed benefits and applications spawned by Goleman's book.

These include identifying leadership potential; formulating development programmes; providing advice on career development; and enhancing abilities to deal with interpersonal relationship.

Goleman's baseline proposition that emotional intelligence "makes a difference" in terms of individual and organizational success. A concept that purports to offer such value needs to be clearly understood. The stated driver of interest in emotional intelligence is, in essence, the inability of "traditional" measures – IQ tests, for instance – to predict performance. Yet this argument tends to ignore the contributions of relevant Psychometric tests and properly run assessment centres. Furthermore, the single idea of emotional intelligence has strong appeal for those seeking an apparently simple solution to a complex problem. The failure of rational measures of intelligence to predict success dates back to the 1920s. Since then, researchers have examined the

components of personality that are not incorporated in the IQ approach. Goleman reviewed this work and proposed that what was missing and what would help to explain the difference in success – could be labeled as elements of emotional intelligence. He identified the main components of emotional intelligence as:

- self-awareness
- emotional management
- self-motivation
- empathy
- managing relationship
- communication skill
- personal style

Having reviewed the research in the educational and physiological spheres, Goleman proposed that intellectual measures alone fail to explain individual variations in success. He wrote that possessing a combination of intellectual ability and the capacity to recognise and manage the emotional elements of life was a strong predictor of success.

### **EQ opportunities**

While Goleman argued strongly in favour of this idea, which is supported by both anecdotal and educationally based evidence, there is little structured research to back it up in an organizational context. And problems in developing measures of emotional intelligence are seen as barriers to exploring its validity. There is broad agreement and that traditional ‘paper and pencil’ tests are inappropriate for measuring it – a behaviour – based approach may be more applicable – but these theories have not been fully researched. Indeed, we found with our study a relationship between on personality – questionnaire and some elements of emotional intelligence.

Our research provided evidence to support Goleman’s arguments, in terms of the significance of emotional intelligence as a predictor of individual success and in terms of the impact of combined emotional and IQ. This latter point is seen as a driver of interest in emotional intelligence, its contributing role in the prediction is widely acknowledged.

This study has produced organizationally based evidence to support the ideas promoted on emotional intelligence. Importantly, it has provided a competence-based measure of emotional intelligence that is both valid and reliable. Clearly, further research will add to our confidence in its predictive ability.

It is important to consider whether this new interest in emotional intelligence is more rooted in the desire to achieve a quick fix, or whether it is more fundamentally grounded.

Our research has provided support at all the individual levels for Goleman's propositions, but more work is needed to establish the organizational benefits of building emotional intelligence. Future research should look beyond it as a promotional criterion and to the broader impact on organizational performance of building emotional intelligence in order to create "emotional capital". We are now starting on this part by examining emotional intelligence in a team setting.

Opinions differ on whether it is possible to develop an individual's emotional intelligence. The study has not ended the debate, but our competence-based measure supports the idea that it is possible. While some of the competencies may be dependent on enduring personal characteristics – for instance, energy and achievement-orientation – others are clearly capable of being developed via training and other interventions – for instance, perceptive listening and motivating others – as we have found on Henley's senior management programme.

So, if organizations believe that they can gain a competitive edge by focusing on their people, they now have a method of expressing existing levels of emotional intelligence in a way that will help them devise development activities to build on these capabilities for the future.

## Appendix P2

**Being cool or being good: researching mobile phones in Mozambique**

*by Julie Soleil Archambault (SOAS)*

Drawing on my fieldwork experience in Inhambane, southern Mozambique, where I conducted research on mobile phone use amongst youth, my paper tackles issues of acceptance and rejection. As I sought to gain acceptance amongst youth I found myself participating in various controversial and, at times, dangerous activities that made me the victim of intense gossip and outright rejection by some. The fact that I came to the field accompanied by my husband and daughter only made matters worse. In this paper, I present the challenges of “being cool”, while also “being good”, and the repercussions of my research choices on my social standing. I then discuss how, instead of compromising my research, this predicament had a positive outcome by revealing social dynamics that might otherwise have remained hidden, namely the importance of concealment and the ambiguous role mobile phones play in deceit.

Lulu, a young Mozambican man, told me one afternoon that he wished he could go somewhere where nobody knew him, so that everyone would notice him and see how cool he was. After some time in the field, I also had the same desire, but for the opposite reason: I longed to pass unnoticed. I start this paper by presenting the challenges of acceptance and rejection I faced while conducting research on mobile phone use in southern Mozambique. I then reflect on my personal experience and show how gossip and broken friendships made me more attuned to the importance of concealment, while also providing insight into the ambiguous role mobile phones play in deceit.

### **Researching mobile phones**

When I first arrived in Inhambane, in southern Mozambique, and started building contacts for my research, most people I met offered to exchange mobile phone numbers. They usually looked at me incuriously when I told them that I did not have a phone. Yes, I was one of those who swore they would never own one. In the field, however, I soon realised, to my initial dismay, that acquiring a phone was going to prove imperative. So, for research's sake, I got my first mobile phone. Before long, I became fascinated with phone use, and then something spectacular occurred: the city of Inhambane was subjected to a complete makeover. At the end of 2006, Mozambique's two mobile phone operators undertook an aggressive publicity campaign in which the facades of shops and bars, along with decaying concrete walls and other decrepit buildings were either painted in bright yellow and turquoise (the colours of mCel, the country's leading operator) or blue, white and red (the

colours of Vodacom, mCel's competitor). In Inhambane, about one quarter of the buildings were repainted, some perhaps for the first time since colonial days. The visual effect was dramatic.

Inhambane is a small provincial capital of just over 50 000 inhabitants situated in southern Mozambique. It is known as the Land of Good People (*Terra da boa gente*), an attribute inherited from Vasco da Gamma, in homage to the hospitality he received when he visited the area in 1498. When I first went to Inhambane as a graduate student in 2001, it figured prominently in local identity discourses, but when I returned in 2005 to undertake dissertation research, things had changed. Throughout the year and a half I spent conducting fieldwork there, I heard many people remark that Inhambane was no longer the Land of Good People. These comments were part of broader discourses concerning the rapidly changing post-socialist, post-war context in which initial euphoria (cf. Isaacman 1978) had given way to disenchantment.

These comments also came up in discussions regarding mobile phones which, in only a few years, had become omnipresent. According to a survey I later conducted, for instance, 71% of grade 12 students (with an average age of 20) in the city of Inhambane were mobile phone owners in 2007. And so I eventually came to the realisation that an in-depth look at mobile phone use was needed, were I ever to understand the youth social realities that I had set out to study. I therefore gave up the research project I had neatly designed in London (on the intertwined nature of Pentecostalism, alcohol use, and conversion) and what I first saw as a nuisance became a research tool and, eventually, also a research object.

Liberdade, the neighbourhood where most of my research was carried out and where I also resided, starts after the abandoned railroad track, where the once paved road ends and the palm-lined sandy road known as Rua Branca begins. Diverging from the road, one enters a maze of narrow paths formed by tall braided palm-leave fences that delineate the different households. In Liberdade, like in other peri-urban areas of Inhambane, residents live in close proximity, as land is scarce and expensive, especially since the area absorbed many of the people displaced by the war in the late 1980s and early 1990s. This said, it does not have the hustle and bustle or the anonymity usually associated with an urban environment. Most houses are made out of local materials, and although an increasing number have corrugated iron roofs and electricity, only a few have running water. Most households rely on urban agriculture and/or petty trade, along with social networks, to supplement meager incomes, and many periodically face alimentation problems. Few of the young adults I worked with had founded independent households and most were living with their parents, often in women-headed households. Some were attending school, others had recently graduated, a handful had a regular source of income from employment, and many were "not doing anything", but all aspired to a similar lifestyle in which the consumption of modern consumer goods figured prominently. Aged between 19 and 29, they were at a crossroads concerning education, intimate relationships, household formation and livelihood strategies.

Gaining access and acceptance amongst these young adults, or what I simplified as “being cool”, proved relatively easy. Of course, my new phone, a second-hand low-range Nokia, was not sufficient to ensure my acceptance; I also had to learn how to look cool, act cool and talk cool. I started spending most of my time in various youth spaces, from the public tap to the disco, and, before, long, I developed relationships with a number of youth who were keen on teaching me the local slang and on providing fashion advice.

### **Gossip, broken friendships and the bad wife**

Before going to Mozambique, I wrote in the methods section of my research proposal that I believed my accompanying husband and five-year-old daughter would play an important part in my research, not only by making me, the researcher, appear somewhat normal, but also by facilitating my access to different groups of people. Drawing on the experiences of other anthropologists who conducted research in similar circumstances, I expected their presence to greatly help my entry in the field and to increase rapport (DeWalt and DeWalt 2002:62-3). This could not have been further from the truth.

In fact, I wish I had read *Notes on love in a Tamil family* before going to the field (Trawick 1990). Like Margaret Trawick’s husband, my husband found little interest in following me around while I worked and much preferred staying at home with our daughter or hanging out with the other expatriates. In Inhambane, a good wife is expected to spend most of her time at home. A number of husbands admit that they are willing to spend money on television sets in order to ensure their wives do not always end up at the neighbour’s house come *novela* time (Brazilian soap operas that run in the late afternoons and evenings). This control of women’s movements is intimately linked to a control over female sexuality. Unlike men, for whom it is expected yet contested to have multiple partners, a woman is not supposed to have more than one partner. Of course, a woman can sneak out while her husband is away, but the idea of a woman going out, especially at night, while leaving her husband at home, is simply inconceivable. As foreigners we were allowed a certain leeway, but still, my behaviour, along with my husband’s permissiveness, prompted great interest and comment, especially from neighbours and older residents of our neighbourhood.

Despite these murmurs, my research amongst younger unmarried adults was progressing nicely, and the amount of time I spent away from home increased proportionately. However, after being attacked one night at machete point – a very traumatic event that nearly cost me my precious mobile phone – I was forced to rethink my research strategies. I therefore went searching for someone who could act as my research assistant-cum-body guard. After a couple of unsuccessful trials, I eventually met Hernane, a 24-year-old man who had just completed secondary school and who proved very enthusiastic. My association with Hernane kept me safe. At the same time, it further facilitated my access to local youth as it allowed me to hang out with other young men

from the neighbourhood who often gathered at his house in the afternoons to lift weights and converse (*bater papo*). On the other hand, however, it had serious repercussions on my social standing, since it provided further content for the rumours which were already circulating and which thus became ever more contemptuous.

Shortly after arriving in Inhambane, I met Benedita (as I will call her here), a married woman who had two children and who was the same age as me. We paid regular visits to each other and, often in the company of Isabella, her sister-in-law, spent countless afternoons sitting in the shade and talking about intimate relationships. Benedita's husband was an unrelenting womaniser and Isabella's, a heavy drinker. Both husbands were extremely jealous and forbade their wives to own a mobile phone for fear that they would contact and be contacted by other men. I would listen to them fantasise about one day finding a better man, and the different pressure tactics they developed to get what they wanted in the meantime. Our relationship was such that I was amongst the few to know that they both had secret lovers and I was usually informed of new developments. This was before my research really picked up, when I was still spending a lot of time at home, when I was still a relatively good wife.

However, later in my research, when I was spending much more time away from home, Benedita and Isabella became my most vocal critics and even ended up severing ties with me altogether. Their husbands played a large part in this rejection as they reportedly forbade them to socialise with me. They saw me as a bad influence. This said, I knew both women were not exactly very compliant, something they had proven to me on a number of occasions (both eventually raised enough money behind their husbands' back to get their own mobile phones), and I believe they could easily have maintained our friendship had they wanted to, even as a form of defiance. They were not the only ones, however, to disapprove of me. Whenever I met older acquaintances, it was common for them to greet me politely and then to add: "*ah, pasear...*", which meant "oh, so you are out on a stroll [again]". What they were implying was that I was not being a good wife.

Gossip involves a degree of secrecy but it also only achieves its full potential when disclosed. The very neighbours who were responsible for spreading gossip about me were happy to translate others' comments when we appeared together in the streets. The novelty of the *tsungu* ("European" in Gitonga, the local language) woman living in an all-black peri-urban neighbourhood eventually wore off, and instead of saying "look at the *tsungu* passing by", residents turned to comments like "here comes the woman who never stays at home". When my house got burglarised, my neighbours blamed my habit of hanging out with youth. "She went looking for it", they reportedly commented amongst each other. Meanwhile, the young adults I was essentially interested in were opening up to me, involving me in intimate disputes and even phone theft. My research was going great, yet I was left with mixed feelings.

Then one night, at 11pm, I received a text message from an unknown number saying: “I am waiting for you. I love you.” When I showed the message to a group of young women the following day, they all agreed that someone was trying to break up my marriage. It could have been a wrong number; who knows? Still, I felt awful. Were there really people who disliked me so much as to attempt to sabotage my relationship with my husband? My romantic image of the anthropologist being friends with everyone was shattered. I felt cornered, I wanted to disappear, perhaps even find a new field site.

After initial frustrations, I asked myself why it was that I provoked such resentment amongst older residents in the neighbourhood and, more importantly, I tried to make sense of what it all meant. Elizabeth Colson (1953) and Max Gluckman (1963) understood gossip as contributing to group unity, and, in Gluckman’s words, as being essentially about “the evaluation of morals and skills” (Gluckman 1968:34). In this perspective, gossip could be understood to act as a conservative and leveling force. By discussing my behaviour amongst themselves, my older acquaintances were reinforcing social values and reminding each other how to behave appropriately. But what was appropriate behaviour, then, if others appeared to be doing much worse than me? How could Benedita and Isabella be so critical of me when they were secretly cheating on their husbands? I could appreciate that spending so much time out of my home raised criticism and suspicion. I had nothing to hide though, and considered that by being open and transparent about my activities, I was somehow proving that what I was doing was “morally” acceptable. Was gossip, like Robert Paine (1967) argued, about furthering one’s individual interests? Were Benedita and Isabella gossiping about me in order to detract attention from their own illicit doings?

I believe the issue was more subtle: it was not so much *what* I did as *how* I did it that mattered. It had to do with discreetness, local understandings of respect and the etiquette of deceit.

### **Discreetness, the etiquette of deceit and the invisible realm of mobile phone communication**

Horst and Miller (2006) remarked, with regards to relationships in Jamaica, that “one can reach a point where people see a lie as a kind of higher ‘truth’ because as an exposure of deceit it brings a person closer to reality, while a mere truth is seen as the continuation of what must really be deceit” (Horst and Miller 2006:98-9). At first, this made little sense to me, but, as I came to better understand relationships in Inhambane where deceit is also rife, I found their observations to be right on the mark. In other words, little, if anything, can be taken at face value, and as such, a good lie is better than a “truth”. As Inocencio explained to Sandra, two youths I worked with: “You girls are used to being lied to and you force us to lie. Women prefer to be lied to, and when you speak the truth to them, they don’t believe you, so it’s better to lie.” And so my predicament gave me

insight into the etiquette of deceit: honesty or transparency that convey an unlikely sense of genuineness is seen as a serious lack of respect.

In Inhambane, respect and discreetness are often used interchangeably, and telling lies becomes somewhat acceptable when done to preserve respect. As an inebriated young man insightfully put it during a monologue in a bar, “lying exists to facilitate the propagation of the human race”. A good partner is therefore not necessarily a faithful one, but rather a discreet one. *“Quem esconde é porque gosta”* (one who conceals does so because he/she cares), women often commented half-cynically. Benedita reiterated this when we were still friends. She said: “Our fathers also used to have lovers, but at least they got them far away, now our husbands go with the ‘neighbours’.” Discreetness is all the more valued given the difficulty involved. In the peri-urban areas of Inhambane privacy is hard to come by, and evading the ubiquitous gaze of other residents is a tricky task that is only partially resolved by erecting a tall fence around one’s property (cf. Reed 1999). In order to survive such a hostile gossiping environment, one has to be clever (*experto-a*). Owning a mobile phone might also help.

In recent years, close attention has been paid to the ways in which mobile phones in particular, and information and communication technologies (ICTs) in general, are redefining and reconstructing experiences and understandings of time and space (Castells 2000, Ling and Pedersen 2005, Maroon 2006). For many, the “perpetual contact” granted by mobile phones has been perceived as intrusive; various studies have reflected on the invasion of the public space with private talk, and argued that growing mobile phone use was leading to a decline of the public sphere and a correlated erosion of privacy (see the edited volume by Katz and Aakhus 2002). However, the “communication revolution” (Osborn 2008:317) currently underway in southern Mozambique appears to be occasioning quite the opposite by providing individuals with a level of privacy that many had never even dreamed of (see also Hahn and Kibora 2008, Ito 2005, and Maroon 2006). Indeed, local discourses are all about evaluating the mobile phone’s effects on intimate relationships. In Inhambane, like in most of sub-Saharan Africa, land-line infrastructure remains weakly developed and most people have passed “from no phone to cell phone” (Orlove 2005:699). As such, a mobile phone is not a better telecommunication tool; it is a tool that makes telecommunication possible often for the very first time, thus opening up entirely new spaces and possibilities.

In Inhambane, normative discourses paint a strict sexual division of courtship in which men are defined as the active players. They are the ones who have to demonstrate their interest and their worthiness to the women they like, while the latter are expected to feign complete disinterest. Before mobile phones, that is, only a few years ago, opportunities for young men and women to meet and flirt were rather limited and courtship was usually a mediated affair. Young men relied on family members or neighbours to make their interests in a woman known. Wedding negotiations were usually the preserve of fathers and uncles, thus excluding, at least to

some extent, the couple concerned (Junod 1966). For those who preferred more direct communication, there was the possibility of sending love letters, but, as many recalled, the time delay was often demotivating. Young men would also “hunt” women by hanging out in the alleys leading to the market. Many still do. Being a public space, however, the alley offers serious restrictions as a courtship space. With the entry of mobile phones, courtship has become less mediated, more personal, much easier (in theory, at least) and, ultimately, more private. As Fakira, a young Mozambican man explained: “Before, when I wanted to talk to a girl I liked, I would risk getting beaten by her brothers or her boyfriend. Now, I just phone her!”

In a context where privacy is scarce and where discreetness is highly valued, the invisible realm of mobile telecommunication becomes invaluable to the consolidation and management of intimate relationships away from the gaze of family members, neighbours and other partners. As a result, relationships are consolidated, which might not have been, were it not for mobile phones. What is more, multiple relationships become easier to manage (cf. Horst and Miller 2006). Owing to the creation of this new space, endeavours to transcend the state of surveillance that characterises daily life become more successful, and the power relations reproduced through this control, more easily challenged. Like fences, however, phones often provide only a false sense of privacy. They might help conceal secrets, but they can as easily reveal them by providing proofs of unfaithfulness, through intercepted phone calls or text messages.

### **When connections backfire**

Despite it being expected of men to have multiple partners, this does not prevent women from getting upset when unfaithfulness is disclosed. In such cases, the accused usually attempts to convince the woman in question that her suspicions are only based on unfounded rumours. One of the problems with mobile phones is that they leave traces and therefore provide material proofs of infidelity that cannot as easily be dismissed as rumours, even if sometimes they might really be wrong numbers or from people who are “only friends”.

A very popular song from the Angolan signer Maya Cool recounts the story of a woman who picks up her husband’s ringing phone only to find a message saying: “Darling, I want to see you” (*Querido quero te ver*). In the rest of the song, the husband attempts to justify the text message to his wife: he says he only gave the sender of the message a ride. The singer then criticises “young cheeky girls” (*pequenas atrevidas*) who just want to destroy families (*lares*) and laments the problems caused by mobile phones (“*telemóvel, hoje em dia, é motivo de problema*”). The song ends with a dialogue between the husband (H) and the young girl (G) who sent the text message:

H: *Não me liga mais* (Don’t phone me anymore), he pleads

G: *Vou ligar* (I will phone), she answers

H: *Tenho mulher* (I have a wife), he says

G: *Não quero saber* (I don't care), she tells him

In this song the man is portrayed as the victim of cheeky young girls, and ultimately, of his mobile phone. The song speaks for the experience of many. In Inhambane, everyone, young and old, has a story about themselves or a couple they know who split up “because of the mobile phone” (*po’ ca’ do telefone*). This type of misunderstanding is in fact described as the mobile’s biggest drawback. At first, it may seem that Mozambicans are victims of technological determinism when they place the blame on the phone rather than on unfaithfulness. But when youth in Inhambane say that so-and-so broke up “because of the phone”, they are rather underscoring that the biggest harm comes from lack of discreetness and from the fact that the tangible proofs the phone provides are almost impossible to deny.

When I asked how they deal with jealousy, young women commonly answered that “If you seek, you find” (*Quem procura, encontra*). In other words, women were aware that their partner was likely to have other partners and that if they set out to look for proofs, they were bound to find some. And so, as long as they could turn a blind eye, this is what they tended to do. In fact, in Inhambane, phone investigation is not as pronounced as in other places (see, for example Horst and Miller 2006). Young adults see themselves as civilized – a recurrent theme in identity discourses – and describe phone investigation as something someone “without education” would do. For this reason, many claim to obey a strict “no touching the other’s phone” rule with their partners, a rule which rests on respect, not trust. More than anything, it reflects a certain acceptance of existing social contradictions and an attempt to prevent, or at least minimise, conflict. Whether the rule is respected is obviously hard to tell and so most nevertheless regularly delete messages and clear call logs, just in case. Still, many get caught inadvertently. For the young adults I worked with, there were only limited “legitimate” occasions that called for switching one’s phone off. For that reason, a disconnected phone automatically roused suspicion. Unlike “proofs” that are acquired through investigation, “proofs” that are stumbled upon have added weight because they really place the deceived as a victim, unlike the investigator, who purposefully went out looking for “trouble” (*confusão*).

The interception of a suspicious call or message, just like encountering a disconnected phone, usually triggers a heady argument. It brings couples to talk (and scream) about issues that might otherwise not be taken seriously. Young women now have stronger claims to voice their concerns as these are based on tangible proofs instead of rumours, and as such, they are not as easily dismissed. And so, phone use in Inhambane opens up new discursive spaces in which the terms of intimate relationships can be negotiated. What is more, while pressuring men to be monogamous and faithful, a number of young women I worked with have also come to the conclusion that they could attain a better lifestyle by engaging in relationships with various men. From a female

perspective, the phone therefore acts as both a discursive and a practical tool used to challenge existing power relations, not so much to topple them, but rather to act upon their ramifications. Young men, for their part, are often torn between jealous sentiments and the need to turn a blind eye to the dissolution of their claim to exclusivity, given that most do not dispose of the material base on which it rests.

### **Being cool or being good?**

In southern Mozambique, the mobile phone comes at a time when intimate relationships, household formation and gender hierarchies are being redefined, alongside changing consumption patterns. The phone is also seen by many as intensifying these transformations. Indeed, mobile phone practices are both reflective and constitutive of broader socio-economic reconfigurations and can therefore serve as an original avenue to explore broader social dynamics. Had I left my family behind or had I worked on a different topic, I might have been spared the criticism. Then again, my neighbours would probably have found something else to talk about. Gossiping is, after all, a great form of entertainment. Instead of compromising my research, my personal experiences of acceptance and rejection helped me make sense of values that might otherwise have remained obscure. They also added an experiential twist to my research as I started to use my mobile like many Mozambicans do: to manage and keep separate different spheres of my life (cf. Horst and Miller 2006). The phone allowed me to operate more discreetly, while also keeping me safe. It helped me to reduce the traffic of youth who came to pick me up at my house, and opened up an invisible, or at least, a less visible, realm within which to conduct my research. Still, the challenges of “being cool” while also “being good” were never entirely reconcilable.

## **Appendix P3**

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### **SPECIAL ISSUE: THE MESSAGE AND THE MEDIA**

Media Coverage of Celebrity DUIs: Teachable Moments or Problematic Social Modeling? Katherine Clegg Smith, Denise Twum and Andrea Carlson Gielen

#### **Abstract**

*Alcohol in the media influences norms around use, particularly for young people. A recent spate of celebrity arrests for drinking and driving (DUI) has received considerable media attention. We asked whether these newsworthy events serve as teachable moments or problematic social modeling for young women.*

#### **DUI ARRESTS AMONG YOUNG FEMALE CELEBRITIES**

There have recently been several highly publicized drinking and driving (DUI) arrests involving young female Hollywood celebrities. In December 2005, star of the hit television series 'Lost', Michelle Rodriguez (age 27), was arrested in Hawaii. Rodriguez failed a field sobriety test and was found to have a blood alcohol content (BAC) of 0.145% (Hawaii legal limit for driving is BAC < 0.08%). In September 2006, 'reality TV celebrity' and heiress Paris Hilton (age 25) was arrested, failed a field sobriety test and was measured to have a BAC of 0.08%. In December 2006, 'reality TV celebrity' Nicole Richie (age 25) was arrested for DUI after driving the wrong way down a California freeway. Accounts of Richie's DUI arrest include discussion of alcohol, marijuana and Vicodin without reporting her BAC. Finally, in May 2007, actress Lindsay Lohan (age 20) crashed her car, was arrested and was found to have a BAC above 0.08%. In July 2007, Lohan (now 21) was arrested again after engaging in a car chase, with a BAC of 0.12%.

The media attention given to these 'diva' DUI events is informed by considering the influence of the celebrities' gender on public reaction. Historically, drunkenness has been found to be more tolerated among men than women, with women's drunkenness being seen as a breach of feminine respectability and morality (Herd, 1997). The drinking and driving events referred to above can be understood as stark examples of deviant acts on the part of young women whose societal standing is bound up in their feminine image and identity. This violation may contribute to the considerable media attention given to these incidents. In this paper, we analyze news media coverage of these four female celebrities over the year following their DUI arrest. We are interested in how the DUI events are presented as worthy of news attention and how they are presented in relation to societal norms and expectations.

#### **DRINKING AND DRIVING IN THE USA**

Drinking and driving is a major public health concern, given both the prevalence of the behavior and the related injury and mortality consequences (Yanovitzky, 2001). In 2005, alcohol related crashes (defined as a crash where at least one driver

or non-occupant had a BAC of 0.01% or higher) resulted in 16,885 fatalities, 86% of which included at least one driver or non-occupant who exceeded the 0.08% BAC limit (US Department of Transportation, 2008). In 2004, 1.4 million drivers were arrested for driving under the influence of alcohol or narcotics (US Department of Transportation, 2008). Of particular concern, people younger than 21, for whom alcohol use is illegal, have a higher relative risk of a fatal crash at lower levels

of alcohol (The National Highway Traffic Safety Administration, 2008). Moreover, the prevalence of DUI is also not abating among these younger drivers. As of 2001, 31.4% of college students (age 18–24) reported driving under the influence of alcohol, an increase of nearly 5% since 1998 (Hingson *et al.*, 2005). We need to better understand the factors that appear to undermine society's concerted efforts to change social norms around drinking and driving. Understanding the nature of news messages is an important public health communication goal, as is ultimately shaping news coverage as a means to prompt policy and behavior change (Yanovitzky, 2001). Media are an important source of socialization about alcohol and the consequences of consumption (Baillie, 1996) and have an influence on the construction of collective definitions of acceptable behavior (Yanovitzky and Stryker, 2001). Furthermore, the media shape the 'terms of discussion' for issues such as alcohol (Hansen and Gunter, 2007). The potential of celebrity figures to influence others exemplifies the concept of observational learning, or modeling, which is an integral component of Bandura's (1977) Social Learning/Social Cognitive Theory. This theory has considerable empirical support for its utility for a variety of injury-related behaviors (Simons-Morton and Nansel, 2006; C \_ The Author 2009. Published by Oxford University Press on behalf of the Medical Council on Alcohol. All rights reserved Downloaded from [alcalc.oxfordjournals.org](http://alcalc.oxfordjournals.org) by guest on October 19, 2010 Media Coverage of Celebrity DUIs 257 Cheng *et al.*, 2007) and in adolescent health (Utter *et al.*, 2003; Taveras *et al.*, 2004), although the specific content associated with celebrity stories and how it might help explain their modelling influence has been largely unexplored.

## **NEWS MEDIA AND ALCOHOL**

Agenda setting theory suggests that the media inform both what issues people think about and what they think about them (Lima and Siegel, 1999). The literature pertaining to news coverage of alcohol and DUI more specifically is relatively sparse. Research on the role of the media in shaping public attitudes toward alcohol as well as alcohol consumption has tended to focus on alcohol advertising. There is therefore a need for a broader consideration of the symbolic environment around alcohol use (Hansen and Gunter, 2007).

One of the long-standing societal norms around alcohol use has been that 'excessive use' (however that is defined) is more stigmatizing for women than for men (Robbins and Martin, 1993). One study of alcohol-related content in young adults' magazines found, however, that coverage serves to normalize drinking and to construct women who drink as 'professional, glamorous, good looking, competent and sophisticated' (Lyons *et al.*, 2006, p. 228). The extent to which such 'normalizing' messages around young women's drinking are also apparent in other media sources remains an interesting and important question.

In another recent study of news coverage of alcohol in general, Hansen and Gunter (2007) found a strong tendency for stories to present an environmental or naturalistic evaluative slant related to alcohol abuse and dependence, rather than explanations that are moralistic or personality focused. In an earlier study of print news coverage of alcohol, Myhre *et al.* (2002) found that ~17% of the coverage concerned DUI events. They also found that DUI stories are more likely to appear on the front page and more likely to include some mention of alcohol policy. Finally, Yanovitzky (2001) found that most news coverage of DUI issues is episodic, and events are often framed in criminal terms. The fact that reported rates of driving impaired are higher among young adult drinkers (18–20 years) than any other age group (Shults *et al.*, 2002) and that drinking and driving in this age group (Hingson *et al.*, 2005) also seems to be on the increase suggests a need for additional studies of alcohol-related news in media with large youth audiences. In particular, there is a need for attention to the specific messages being relayed in such coverage as well as whose perspective is shaping such messages (Lyons *et al.*, 2006). There is also a call for research that extends beyond issue focus, specifically considering 'who' is driving news coverage of alcohol-related newsworthy events that are potentially salient to young adults, such as celebrity DUI arrests. Our analysis builds on the observations of previous studies in the context of high prevalence of drinking and driving among US young adults, and the potential of celebrity figures to influence others via observational learning and modeling. In order to address questions of agenda setting and framing as mechanisms of media influence, we ask the following

questions:

- To what extent is a celebrity's DUI newsworthy during the year following their arrest in various media outlets?
- What issues or events associated with a celebrity's DUI are covered in the news?
- How are DUI issues and events framed in various news media?

## FINDINGS

Our search yielded 150 print and 16 TV news stories that were deemed to be relevant to this study (i.e. an article focused on one of the celebrities in the year following her arrest Downloaded from [alcalc.oxfordjournals.org](http://alcalc.oxfordjournals.org) by guest on October 19, 2010 258 Smith *et al.*

### WHAT ARE THE PUBLIC HEALTH IMPLICATIONS OF MEDIA COVERAGE OF CELEBRITIES' DRINKING AND DRIVING?

The nature of media coverage of celebrity DUIs is relevant for the alcohol research community in two ways. First, to the extent that DUI is newsworthy, so coverage may influence attitudes and ultimately drinking and driving behavior. Secondly, coverage may raise the profile of the problem, which may in turn influence societal attitudes and ultimately promote policy initiatives.

The individualistic nature of this celebrity coverage suggests considerable opportunities to enhance public health framing of newsworthy DUIs. In previous work, Yanovitzky (2001) outlined five 'problem' frames within which drinking and driving can be presented in the news media (one of which is a public health frame) and six possible 'solutions' (many of which are structural or regulatory in nature). Our study found coverage Downloaded from [alcalc.oxfordjournals.org](http://alcalc.oxfordjournals.org) by guest on October 19, 2010 260 Smith *et al.* of celebrity drinking and driving to be dominated by a law and order frame, with little evidence of any presentation of 'solutions' for drinking and driving. Rather, 'solutions' were focused almost entirely on 'fixing' the individual celebrities' problematic alcohol use.

Discussions of consequences of drinking and driving were largely limited to the legal and career implications for celebrities. We also suggest that the use of 'stock' publicity images of celebrities that have nothing to do with the DUI may serve to glamorize drinking and driving. To the extent that the stories include any prevention message, so such images would undermine this—but in fact we saw little evidence of any such messaging. Our findings resonate with other research on entertainment media that has argued that the negative consequences of drinking are rarely portrayed (Connolly *et al.*, 1994). We found little discussion of personal or societal responsibility in the coverage beyond vague discussions of celebrity engagement in addiction treatment or legally mandated community service. These findings are all consistent with the view proposed by Myhre *et al.* (2002) who argue that 'from a public health standpoint, it is of concern that many news stories emphasize the episodic nature of the events rather than discussing root social causes or appropriate preventive action' (p. 187).

## IN SUM

Our analysis of media content clearly demonstrated that while the celebrities in question are influential, coverage of their DUIs was brief with a heavy focus on the consequences for the individual—namely the arrest, jail and subsequent treatment. Moreover, the newsworthiness of paltry legal consequences for the celebrities may reduce any deterrent value of coverage that routinely included glamorous images of the celebrities while essentially ignoring the potential injurious consequences of her drinking and driving. The perceived trade-off between such consequences and the benefits of the glamorous lifestyle that led to them is an important question but not answerable from our data. Our analysis of coverage of young female celebrities' DUIs provides insight into the drinking and driving messages in various news media, without explicitly examining the impact of coverage on behavior or policy initiatives. Research on other celebrity news (such as breast cancer and mammography) has demonstrated a potentially powerful influence of such coverage. Future research should include both an

examination of news coverage of alcohol use among popular role models in media aimed specifically at young people as well as the comprehension and use of such content by youth and policy audiences.

[Taken and adapted from Alcohol and Alcoholism Vol 44]

## **Appendix P4**

### **The Social Media Revolution: Exploring the Impact on Journalism and News Media Organizations**

**By Ruth A. Harper**

**Twitter. Facebook. Digg. MySpace. LinkedIn.** The list of social media tools could probably run on for paragraphs, and today's technology changes so rapidly that many industries, including corporations and news media, can barely keep up. In the traditional world, newspapers, corporations, governments, or other types of leading organizations simply had to give out information, and people would consume it by reading or looking at it. But this seemingly tried-and-true method has started to transform. Simply making information available is not enough for today's public. Today's audiences expect to be able to choose what they read, and most believe they should be able to contribute content and opinions, too. This shift, sometimes called the social media revolution, is not the death of journalism as America always knew it; it's the birth of a democratic movement that emphasizes some of journalism's key factors: transparency, honesty, and giving a voice to the person who doesn't have one.

Many traditional and non-traditional media outlets report and comment on how the Internet and social media, especially social networking, have begun to seriously affect news organizations and how they operate. Although newspapers currently face a crisis on how to make the news profitable in the digital age, that isn't this report's main focus. How papers will make money has been talked to death. So, instead, this report will focus on how social media, especially social networking sites like Twitter, has begun to affect the news organizations and changed — for better or worse — how journalists perform their jobs every day.

The report will respond to one simple, yet rather complex, question: What impact has social media had on news organizations? A question like this cannot be answered straightforward but must instead be explored. While the report will focus on what has already occurred, it will also look to the future and will consider whether public opinions of the mainstream media have helped spawn and accelerate the birth of the social media revolution. Results will lead the report to offer three areas within journalism that social media has significantly touched: the public's trust of the news media in relation to social media; the relationship between local news organizations and social media; and how news is and will be covered using social media tools.

### **Social Media Literature Review**

Media industry publications and critics often mention a media shift from traditional outlets, like newspapers and magazines, to digital news sources. Going a step beyond simply being online, media organizations have begun to consider how news organizations use social media tools to keep their audiences and, most importantly, to keep bringing in funds to support themselves. Myriad opinions and ideas on the topic exist on social media's presence in the journalism world; the volume of information can seem overwhelming. However, this report will attempt to explain what has occurred and hypothesize on what the future holds for a world containing independent journalism and social media tools.

Understanding where traditional news organizations currently stand requires one to understand how audiences consume their news and what they think about the news business as it stands. Surveys by news organizations and foundations offer a way to understand the public's thoughts quantitatively. The Pew Research Center for the People and the Press conducted a survey in which it found, overall, respondents have less confidence that news organizations strive to report accurate, politically unbiased news than they had a few decades ago. In fact, the public's confidence has reached its lowest level in more than two decades ("Public" 2). Despite this, the Pew survey showed most respondents still think watchdog journalism is critically important ("Public" 10-11). The poll also monitored consumers' most-used news medium, finding audiences tend to obtain national and international news from TV and the Internet ("Public" 4). However, this and a survey study conducted by the National News Association (NNA) found the opposite seems to be true for local newspapers, especially weeklies ("Annual").

The NNA's survey found the majority of respondents spend at least 40 minutes a week reading their local newspaper and often prefer the print over the online edition ("Annual"). A MediaPost article discussed a survey that found males tend to be more open to new media than females, and, to little surprise, the 18-to-34-year-old age group has seen the largest decline in traditional media usage (Loechner 1). This survey also found while most people said newspapers needed to change to remain relevant, users wouldn't be willing to pay to read print magazines online (Loechner 1-2).

Before being able to define the relationship between social media and journalism, it's vital to explain journalism's purpose and troubles within the media industry as a whole. In a letter in the *American Journalism Review*, Kevin Klose wrote journalism in its purest form is about witnessing an event and recording them for others to see and read (Klose 2). Similarly, in another *American Journalism Review* article, Pamela J. Podger says journalism is about listening to those who have something to say (Podger 36). In his blog post titled "Social Journalism: Past, Present and Future," Woody Lewis offers similar sentiments regarding what a "social journalist" is. He explains social media is about listening as well as interacting with others (Lewis). Another blogger, Vadim Lavrusik, described the change from one-way communication to a community affair and how the change will assist journalists. Others, including two authors for the fall 2009 online issue of Nieman Reports, Robert G. Picard and Richard Gordon, and Chris Martin of Chris Martin Public Relations, also expressed social media can help journalists do their jobs more effectively. Journalists aren't the only ones who benefit from news organizations' increased presence on social media.

Others have evaluated the news media and determined social media has not only benefited journalists but has also helped give individuals a way to speak up to the world. In a book titled "Groundswell: Winning in a World Transformed by Social Technologies," Charlene Li and Josh Bernoff argue social media has empowered individuals and has forced the idea of "news media" to morph whether or not the industry has desired this change (Li 5). In his book "Twitter Power," Joel Comm argues a similar case, stating social media allows anyone to publish ideas at a relatively non-existent price (Comm 1). Despite its positives, some have found problems with journalists in the social media world. In articles written for the fall 2009 edition of Nieman Reports, Michael Skoler discusses the media's flawed business model and how social media could help, while Geneva Overholser argues journalists need to talk more about social media (Skoler; Overholser). Finally, in his article, "The Continuing Need for Professional Journalism," Shel Holtz argues how bloggers' habit of covering what interests them rather than hard news that needs to be covered could seriously damage investigative journalism (Holtz).

Without tools and applications like Twitter, social media simply wouldn't exist. Many media professionals have reported on how journalists can use these tools. In an article for *Wired* magazine, Steven Levy discusses how user-oriented, real-time Twitter is changing the news media (Levy). In an article for the *American Journalism Review* titled "The Twitter Explosion," Paul Farhi discusses these aspects, relating them to those in journalism and media careers (Farhi). Two writers, Courtney Lowery and Leah Betancourt, discuss how to use (and how not to use) social media tools like Twitter for journalistic purposes (Lowery; Betancourt). Lowery goes a bit deeper than Betancourt by describing her own newspaper's experiences with social media tools in her Nieman Reports article (Lowery). In her article for the *American Journalism Review*, Podger explores the importance of social media in journalism but doesn't force employees to use the tools. However, a large number of Americans use them anyway, perhaps even more than e-mail, according to a Mashable blog entry written by Adam Ostrow (Ostrow). Facebook and Twitter are becoming more important than ever, and part of the tools' popularity stems from the ability to easily create one's own applications.

The third literature topic required a wide use of newspaper articles because it evaluates coverage of recent international and national events. Four major events show how useful social media tools, especially Twitter, can be. The most recent event is the Nov. 5, 2009, shootings in Fort Hood, Texas. This report examines the situation using a weekly news report from Pew Research Center's Project for Excellence in Journalism and an article from the *Columbia Journalism Review*'s Web site. Both of these articles discuss how social media tools — especially Twitter — allowed journalists and the public alike to report occurrences quicker than in the past, although possibly with some errors ("Pew Research"). Megan Garber's article at cjr.org titled "Fort Hood: A First Test for Twitter Lists" examines Twitter's new list feature and how journalists used it to report on the Fort Hood shootings (Garber).

To understand how social media has affected journalism, one should understand the most popular social media tools for journalists, the most popular of the day being Twitter and Facebook. To start, one could consider a story from Chris Martin, a public relations professional for more than 20 years. He said social media has helped him build and maintain relationships with reporters (Martin). His example involved a health reporter in Chicago with whom he was friends on Facebook. The reporter began updating her Facebook status with stories she was working on, and one of the stories related to a topic Martin wanted to pitch to the media. So, Martin put her in contact with a few of his clients, allowing both reporter and PR professional to win in the situation (Martin). Other communications professionals have also learned as they move around in the social media world. Courtney Lowery wrote about how her organization made “rookie mistakes” when it embarked on the Facebook and Twitter journey, but the organization was able to correct its mistakes to create a more effective presence (Lowery).

While media organizations and journalists may seem to mention Twitter more than other social media tools, it may not be the most popular with the general public. According to Adam Ostrow, Facebook dominates the social media landscape as the most popular way to share information online. E-mail comes in second followed by Twitter and, in last place, MySpace (Ostrow). However, this report will discuss MySpace, Digg, Facebook and Twitter, with the focus heavily on Twitter.

MySpace sprang to popularity in 2006, becoming the most popular Web site in the world in terms of page views (Briggs 28). News Corporation purchased the site in 2005 for \$580 million (Briggs 28). MySpace as a journalistic tool can become a resource for contacting sources and communicating with audiences, according to Leah Betancourt (Betancourt 3). In addition to MySpace, social bookmarking sites are also impacting journalism. At Digg.com, users vote and comment on news stories, and stories receiving the most votes are featured on the site’s homepage as the most popular stories (Li 3). The community atmosphere has made Digg and other social bookmarking sites rather popular among the public. According to Skoler, “These social bookmarking sites help people find relevant news based on who is recommending stories. Anyone can play, even if experienced and dedicated users have an advantage” (Skoler). In addition to stories like Martin’s above, Facebook tools like the Facebook Connect Service can help media organizations because the application allows Facebook users to log on to other sites using their Facebook IDs instead of creating another site-specific account (Gordon).

While the aforementioned tools shouldn’t be forgotten, according to contemporary research, Twitter appears to be one of the most discussed by communications professionals at this time. The free social-networking service allows short messages to be sent to and received by self-designated followers either using a computer and Internet connection or a mobile device with an Internet connection (Farhi 28). Also, unlike Facebook, Twitter’s primary users are adults aged 35 to 49 who say they use the tool at work (Farhi 30). In addition, Paul Farhi wrote, “Twitter attracts the sort of people that media people should love — those who are interested in, and engaged with, the news” (Farhi 30).

Twitter’s popularity has skyrocketed in recent months, attracting 17 million visitors in April 2009, an 83 percent increase from the previous month (Farhi 28). More specifically, Twitter has become a tool for media members. For example, David Gregory of “Meet the Press” had more than 520,000 followers, Rachel Maddow of MSNBC has more than 500,000 followers, and *The New York Times’* David Pogue has more than 300,000 followers (Farhi 27-28). Farhi wrote, “Some well-known news media names now have Twitter followers that are almost as large as the circulation of their newspapers or viewerships of their TV shows” (Farhi 27).

The public and journalists alike have found many uses for Twitter. Appealing features for journalists include its speed and brevity, which allow journalists to quickly post breaking news as well as swift-changing updates on stories (Farhi 28). The simplicity and asymmetry between writers and followers are also crucial aspects of Twitter for journalists (Levy 3). In addition, Twitter requires little care and interacting with the community via Twitter takes a limited amount of time (Farhi 28-9). Lowery discussed how her organization began using Twitter to push out stories as well as perform journalistic news gathering tasks.

While useful for disseminating information, journalists can also use it to gather information. Farhi described Twitter as a “living, breathing tip sheet for facts, new sources and story ideas.” He added, “It can provide instantaneous access to hard-to-reach newsmakers, given that there’s no PR person standing between a reporter and a tweet to a government official or corporate executive. It can also be a blunt instrument for crowdsourcing” (Farhi 28). Some journalists see Twitter’s usefulness in relation to story generation (Farhi 29). According to Dan Gillmor, veteran news media blogger and Arizona State University journalism professor, “Journalists should view Twitter as a ‘collective intelligence system’ that provides early warnings about trends, people and news” (Farhi 29). Comm offered similar sentiments by writing, “Tweets are the means to an end. Twitter is just a communication tool” (Comm xviii-xix).

To fully understand how social media has impacted journalism, one must also consider a few recent events. Social journalism itself has been in existence long before social media came into the picture. One example of early social journalism is when police beat Rodney King in the 1992. One man present when the police beat King kept his camera rolling and submitted it to the mainstream media to spread the story (Lewis 1). The Internet also played a role in the 2004 Orange Revolution in Ukraine (Baumann 1). This report will focus on four current events that used social media: the terrorist attacks in Mumbai in 2008, an explosion in Montana in 2009, the Iranian protests in summer 2009 and the Fort Hood shootings in November 2009.

Twitter also showed its importance when an explosion in Bozeman, Mont., destroyed three businesses in the spring of 2009. Lowery, editor of NewWest.net, wrote, “Here in Montana, this explosion was our ‘aha’ moment in experiencing how social media, Twitter in particular, opens up new possibilities in journalism” (Lowery). She continued by saying both her news organization and the *Bozeman Daily Chronicle* quoted from the Twitter feed. However, she pointed out an important step they took. “We filtered the information and confirmed facts,” she wrote (Lowery). Also, one Bozeman-based journalist, Michael Becker, created a hashtag on Twitter to organize tweets about the explosion (Lowery). A hashtag is Twitter slang for a group of tweets on a specific topic, like #swineflu or #journchat (Farhi 29). On his blog, Becker wrote, “For a long time, people have been talking about the potential of Twitter as a news source. Today, Twitter earned its stripes” (Lowery). Finally, Lowery also mentions the explosion helped her see a sort of “symbiotic relationship” between social and traditional media. Those on location can post quickly and traditional journalists can use these accounts, with some basic fact checking, to push vital information to the public in a more efficient manner (Lowery).

In even more recent months, social media’s effect on journalism was present during and after the Fort Hood shootings Nov. 5, 2009. A number of people claiming to be witnessing the events at Fort Hood tweeted and posted blog entries while the military base was locked down (Pew Research). Some mainstream media outlets picked up the stories from social media users, and some, including NBC’s *Today* show, *The Huffington Post* and *The New York Times*, set up aggregated lists, a new feature on Twitter, to follow comments and conversations on the topic (Pew Research). Megan Garber wrote for the *Columbia Journalism Review*: “Lists also represent, more significantly, a new — or, more precisely, a newly facilitated — way for news organizations to collaborate: They allow news outlets essentially to co-opt others’ reporting. But in a good way — to the benefit of the news organizations in question and, of course, their audiences” (Garber 1). However, while some of the information reported through social media was correct, blogs and Twitter also may be responsible for spreading rumors, like one saying more than one shooter had been involved in the incident (Pew Research). Paul Carr at TechCrunch, a technology-focused blog, wrote,

In conclusion, Twitter continues to play a role in breaking news. To some it appears more resilient than other tools because users can participate via a variety of mobile devices as long as an Internet connection is available (Stone 2). Morozov summed it up quite well: “In the past one needed a fortune, or at least a good name, to cause much damage (to an entity). Today, all one needs is an Internet connection” (Morozov 12).

“Traditional newspapers are eager to harness the power of social networks to find and distribute information, but they also want to do it in a way that fosters responsible use. The goals are to identify the tripwires of social networks, avoid any

appearance of impropriety and ensure the information can't be used to impugn the integrity of their reporters, photographers and editors" (Podger 33).

Another hope of journalists and communications professionals is that the ethics documents will be dynamic, "living" documents (Podger 34). Jan Leach wrote, "As (Microsoft CEO Steve) Ballmer put it, 'Static content won't cut it for the consumer in the future.' Neither will static ethics; as media evolve so, too, will ethical guidelines" (Leach). One instance of changing ethical suggestions relates to an issue *The New York Times* faced. Young *Times* staffers began tweeting information discussed at a meeting. None were reprimanded, but the *Times* made changes — they asked staffers to turn off devices and were sure to signify when information is proprietary (Podger 34).

Before drawing conclusions it is also important to investigate what's in store for the future of journalism and news organizations because of the social media revolution. First, it is possible that journalism schools will slightly alter the way they teach new journalists. For example, DePaul University in Chicago plans to offer a course called "Digital Editing: From Breaking News to Tweets" regarding Twitter and citizen journalism ("DePaul" 1). However, some think the important thing to learn isn't necessarily how to use tools since many young people are already using them (Greenhow). Instead, professors should focus on how "tools can be applied to enrich the craft of reporting and producing the news and ultimately telling the story in the best possible way" (Lavrusik 1).

Few believe newspapers will completely cease to exist, but few will deny newspapers' forms will change in the years ahead. David Klein wrote, "But nothing in the foreseeable future (other than the Internet being dismantled) is going to enable papers to return to their old standard of living" (Klein 2). Klein predicts daily newspapers will have smaller staffs doing more work and getting paid less. He also predicts every city will have at least one print newspaper for the foreseeable future (Klein 1). Dean Singleton, chairman of MediaNews Group, does not think the print medium will completely dissolve. He said, "I'm still very confident that the newspaper industry will not only survive but will thrive over time. In a bit of a different model, but it still will. And I think the print newspaper will thrive over time" (Rider 4). Lewis wrote he sees journalists becoming more independent rather than belonging to single publishers (Lewis 2).

Mobile devices will also play a role in journalism's future. A Forrester Research report suggests mobile devices, especially cell phones, will become the primary social networking "hub" (Walsh 1). Amy Gahran, consultant for the Knight Digital Media Center, also sees potential in mobile devices.

"Social media is one of the best ways to get traction with the mobile market. Far more people have crappy cell phones than computers. This allows journalists to reach lower and even middle-income communities and minorities that news organizations have been overlooking. Why are you a journalist in the first place? — Hopefully it's more than writing articles and seeing your byline. It's to reach communities where they are, and they're on the phone" (Podger 36).

In the end, Picard offers a great quote to summarize what could become the future of journalism due to social media. "It is perhaps too early to judge given that experimentation with social media is in its infancy. It behooves all of us, however, to carefully observe and evaluate their development and effects. Then, we need to use what is learned to gauge whether and how a particular tool provides real benefit to a news organization or if it is depleting resources — financial and human — that could be used more effectively in other ways" (Picard).

### **Concluding Thoughts on the "Social Media Revolution"**

Without a doubt, by examining the above data and results, one can conclude social media certainly has affected journalism and will continue to affect it in the future. While many aspects of journalism have been touched, social media has brought to light three fundamental areas within journalism: the public's trust of the media; the importance of local news organizations and their likelihood to remain in print; and the manner in which news is and will be covered using social media. The public's

trust, or lack thereof, in the media may have played a role in causing the social media revolution. Social media has shown the value of local news organizations as well as the advantages the new tools can bring small media organizations. Finally, social media has given journalists new ways to report and has opened the door for members of the general public who have something to say but can't go through a journalist for one reason or another.

In general, although the American public tends to believe watchdog journalism is important, many Americans in this day and age feel reluctant to trust mainstream media, according to the public perceptions survey. They feel big business or politics or other aspects have overshadowed independent journalism, and in many instances, some, especially the younger population, have lashed out by resorting to online and social media, although not completely deserting the mainstream news organizations themselves (Loechner). Social media tools like Twitter, Facebook and YouTube offer skeptical audiences the chance to receive news straight from the witnesses. Rather than relying on a reporter to speak with someone at an explosion in Montana, audiences can reach out and speak to eyewitnesses themselves. Or if they are one of those witnesses, they can share their story with the world before reporters even arrive on the scene (Lowery).

Finally, as it has already done to a degree, social media will continue to change the way journalists gather and report the news. Reporters can find sources and disseminate information using social media tools. Eyewitnesses will become reporters, but the world will still need "traditional" journalists to go in and verify the facts. Perhaps in the future, professional journalists won't be so much pure information disseminators but truth disseminators. If you want to see what people say is happening right now, check Twitter; if you want to see what's actually true and what might be false, check CNN or *The New York Times*. In the end, no matter the direction it moves in or the new shape or form it takes, news organizations will never cease to exist as long as democracy and freedom of speech exists.

Researchers will develop plenty of detailed questions as the social media and journalism worlds continue to collide. How can news organizations make money from this? How can audiences and journalists sort truth from error? What will happen to print editions of large newspapers? These and hundreds of other questions involving the future of journalism could be responded to in a million different ways, and the next generation of journalists and communications professionals will decide what will work best to preserve the basic premise of journalism: Witnessing an event and telling the story about it. After all, story telling, the defining thread of journalism, no matter what strange and new forms it may take, will never, ever cease to exist.

## Appendix Q

