THE EFFECT OF USING DVD SUBTITLES IN ENGLISH SECOND-LANGUAGE VOCABULARY RECOGNITION AND RECALL DEVELOPMENT

by

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submitted in accordance with the requirements for
the degree of

MASTER OF ARTS

In the subject
TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES
(TESOL)

at the
UNIVERSITY OF SOUTH AFRICA

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February 2016
Declaration

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I declare that “The effect of DVD Subtitles in English Second-Language Vocabulary Recall and Recognition Development” is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I have not previously submitted this work, or part of it, for examination at UNISA for another qualification or at any other higher education institution

________________________  ____February 2016____
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Acknowledgements

The researcher would like to thank the following people. Without their help, this research would not be possible.

First of all, I am grateful to my Lord Jesus Christ for the skill and grace He has given me to complete this research.

I wish to express my sincere thanks to Professor Mirriam MK Lephalala, my UNISA supervisor, and Professor Arlys van Wyk, Head of the Unit for Academic Literacy, for providing me with all the necessary facilities and support. Furthermore, I express my sincere gratitude to all the faculty members of the Unit for Academic Literacy for their help and encouragement.

I also thank my wonderful supporting husband, Anrich, and my parents, for their love, valuable guidance, and encouragement.
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<th>Acronym</th>
<th>Full Form</th>
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<tr>
<td>AARP</td>
<td>Alternative Admissions Research Project</td>
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<td>AL</td>
<td>Academic Literacy</td>
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<td>AP</td>
<td>Admission Point</td>
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<td>AQL</td>
<td>Academic and Quantitative Literacy</td>
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<td>BBC</td>
<td>British Broadcasting Corporation</td>
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<tr>
<td>BICS</td>
<td>Basic Interpersonal Communications Skills</td>
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<tr>
<td>CBI</td>
<td>Content Based Instruction</td>
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<tr>
<td>CHED</td>
<td>Centre for Higher Education Development</td>
</tr>
<tr>
<td>CALP</td>
<td>Cognitive Academic Language Proficiency</td>
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<tr>
<td>DVD</td>
<td>Digital Video Disk</td>
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<td>EALN</td>
<td>English Academic Literacy for Science</td>
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<td>EAP</td>
<td>English for Academic Purposes</td>
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<tr>
<td>EFL</td>
<td>English as a Foreign Language</td>
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<tr>
<td>ESL</td>
<td>English as a Second Language</td>
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<td>HE</td>
<td>Higher Education</td>
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<td>L1</td>
<td>First Language</td>
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<td>L2</td>
<td>Second Language</td>
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<td>NBT</td>
<td>National Benchmark Test</td>
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<td>NSC</td>
<td>National Senior Certificate</td>
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<td>SLA</td>
<td>Second-Language Acquisition</td>
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<td>TV</td>
<td>Television</td>
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<td>UFS</td>
<td>University of the Free State</td>
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<td>UK</td>
<td>United Kingdom</td>
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<td>VKS</td>
<td>Vocabulary Knowledge Scale</td>
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Abstract

The aim of this study was to investigate the effectiveness of DVDs in enhancing student vocabulary development in second-language contexts. To this end the study sought students’ perceptions of DVD subtitles and their level of vocabulary knowledge. It also examined the extent to which watching a DVD with or without intralingual subtitles can improve students’ vocabulary recognition and recall. The literature review included a discussion on the variables operant in second-language acquisition; the use of visual media on vocabulary learning; and the effects of subtitling practices as a didactic tool for vocabulary recall and recognition. The study adopted a mixed-method approach and data were collected through a survey and open-ended questionnaire; a Vocabulary Levels Test; a Vocabulary Knowledge Scale Test; and vocabulary intervention activities. The findings indicate that DVDs can enhance students’ vocabulary in second-language teaching and learning contexts. More importantly the study confirms audio-visual images create greater sensory input that is, “words associated with actual objects or imagery techniques, are learned more easily than those without” (Chun and Plass, 1996:183).

Keywords: Multimedia, vocabulary recall and recognition, ESL, subtitles, DVDs
Chapter One: Introduction and Overview of Study

1.1 Introduction
This study explores the extent to which intralingual subtitles can improve ESL students’ vocabulary recall and recognition. In this chapter, a broad overview of the current research study is provided. The background information about the study is provided; the research aims, questions and hypotheses are identified; the theoretical framework of the study is discussed; and lastly, the aim and significance of the study are stated.

1.2 Contextualisation
1.2.1 The Institutional Context
At the University of the Free State (UFS), all first year students are required to write a National Benchmark Test (NBT), which tests for academic literacy (AL) and quantitative literacy (QL). If students did not write the test or scored below sixty-four percent for the academic literacy component, they are required to enrol in an academic literacy course.

As many as sixty-five percent, of the students studying at the UFS take courses in English as the medium of instruction although this is not their mother tongue. Students come from all over the Free State and their mother tongue languages include, Sesotho, Sepedi, Tswana, Xhosa, Zulu, and Afrikaans. Therefore, these literacy courses focus on the acquisition of English skills in the development of academic discourse.

The academic literacy courses serve several functions. These courses offer support to the three thousand, three hundred and one first time undergraduate students for whom English is a second language (ESL). The students attend four hours of instruction per week for twenty-eight weeks. In these courses, students practise academic tasks required at the university, such as reading and writing, through authentic content that is relevant to the students. The courses are content based, so students enrol into an academic literacy course that is specific to their discipline. At the moment, we have courses catering for students in Humanities (first and second year), Natural and Agricultural Science, Law, Economics and Management Science and Medicine.
1.2.2  The English for Academic Literacy Course

The English for Academic Literacy Course for Sciences (EALN 1508) is designed for students studying Natural Science and Agricultural Science. This course centres on writing guided academic assignments for the purpose of developing students’ writing ability in the science discourse. It also focuses on intensive and extensive reading, and listening as vital to developing academic skills. The course book aims to introduce students to a variety of topics in Earth science and biology relevant to life today through using sustained content based instruction (CBI).

Writing forms an essential component of the assessment of this course. On a weekly basis, students have to submit work in the form of reading reactions, paragraphs (in the first semester) and eventually expository essays (in the second semester). Each week, students report back in the form of a reading reaction. The facilitator gives them a new question where they are asked questions about a book (graded reader) that they have read. They then write a short response about the book in light of the question. On the whole, they have four hours of contact time in class each week where they practise and learn English through writing, reading, speaking and listening.

Vocabulary seems to be a stumbling block in terms of their writing competence; particularly because writing forms a very big part of their assessment. According to Duin and Graves (in Yonek, 2008:24) “[w]riting that contains mature vocabulary has been consistently viewed as better quality than writing with less mature vocabulary”. In the very same article, when pointing out the relationship between vocabulary and writing, Yonek (2008:27) mentions that “much research on the topic suggests that having a large and sophisticated vocabulary helps a writer produce quality text by limiting the cognitive demands during a writing task”. Therefore, developing the vocabulary of a learner who is studying in a second language is crucial to their success in second-language acquisition.

1.2.3  Multimedia and Language Learning

Currently, video (audio-visual content material) is not used to its full potential within classrooms, even though multiple studies have proven that it is effective. As Hsu (2011:93) asserts, “[m]ultimedia appears to provide additional channels for exposure to English”. Incorporating multimedia into the classroom cannot only aid in the teaching of content
material, but can also expose students to different varieties of English as a spoken language, thus bringing authentic accents and experiences into the classroom. He also adds that “the ever-increasing presence of multimedia technology provides writing classes with a new tool to improve writing and can thus place audio-visual to writing activities on a similar footing” (Hsu, 2011: 92-93). Teachers can create opportunities for students to respond (in writing) to films making writing tasks more interesting and realistic. Students can learn different aspects of a concept they might already know and learn to apply various solutions to a problem.

With the exceeding growth of multimedia and technology, students must be literate not only with print material, but also with audio-visual material. This implies that students must be able to make use of multiple resources to access information and use it in various fields and contexts. Consequently, students have to recognise changes in communication when dealing with each form of resource, such as to use formal or informal language, subject-specific vocabulary, register and punctuation. For example, students have to grasp that there are various differences in communication between a television programme and a journal article, or a radio broadcast and a webpage. Students have to move within different forms of communication according to context and select appropriate language for that context. Thus, a multiliterate student must be able to think strategically, analyse problems, ‘read between the lines’ and make an informed decision in various circumstances (Anstey and Bull, 2006:20-21).

According to Sandretto and Tilson (2013:3) “[t]he model of Multiliteracy takes into account the rapid changes in communication technologies that have resulted in wider access to multimodal texts; that is, texts that draw not only upon linguistic codes and conventions, but also visual, audio, gestural and spatial modes of meaning”. Therefore, we have to broaden our view of literacy and what it means in a global context.

1.2.4 Preliminary Inquiry

The preliminary research led the researcher to experiment with the effects of audio-visual multimedia on English vocabulary acquisition. This was an informal inquiry with no pilot framework or set conditions. As part of a lesson plan, the researcher incorporated an excerpt from the DVD “Planet Earth: The Complete BBC series” narrated by David Attenborough (six Disc set) [2012] to supplement the course book content.
Therefore, as a trial, a video with intralingual subtitles, that is, was shown to the students to gage the effects and benefits of using content-related videos to facilitate language learning. Intralingual subtitles ‘convert audio in the video into text which is displayed on a television screen’ (Zarei, 2009: 67). This exploratory trial was very positive because the students reported that they enjoyed watching the video with subtitles and that the subtitles improved their understanding of the content.

At this speculative stage, the researcher discovered that content can be introduced and used in class to supplement learning in the content area whilst at the same time facilitating language learning. In addition, when the video was used in class, the students’ attention and motivation was heightened. The researcher then deduced that videos with subtitles could increase retention and comprehension of the subject matter.

1.3 The Research Aim and Questions

The aim of this study is to explore the extent to which intralingual subtitles can improve ESL students’ vocabulary recall and recognition for comprehension. Particularly, the study seeks to investigate the effect of using DVD subtitles in English second-language vocabulary recognition and recall development.

1.3.1 Statement of the Research Aims

Taking first year students at the UFS, the main research aim was to investigate the effectiveness of using DVD subtitles to enhance student vocabulary in second-language contexts.

Based on the main research aim above, the sub-aims of this study were to investigate:

1. students’ perceptions of DVD subtitles;
2. students’ levels of vocabulary knowledge;
3. the extent to which watching a DVD with or without intralingual subtitles can improve students’ vocabulary recognition;
4. the extent to which watching a DVD with or without intralingual subtitles can improve students’ vocabulary recall.

As a final aim, this study hopes to provide suggestions for the effective use of DVD subtitles to enhance student vocabulary in second-language learning contexts.
1.3.2 Statement of the Research Questions

With regards to the research aims above, the main research question for this study is as follows:

How effective is the use of DVD subtitles in enhancing student vocabulary in second-language contexts?

Based on the main research question, the sub-questions are as follows:

1. What are students’ perceptions of DVD subtitles?
2. What are the students’ levels of vocabulary knowledge?
3. How does watching a DVD with or without intralingual subtitles improve students’ vocabulary recognition?
4. How does watching a DVD with or without intralingual subtitles improve students’ vocabulary recall?
5. How can DVD subtitles be used effectively to enhance student vocabulary in second-language learning contexts?

1.4 Theoretical Framework

The theoretical framework for this study is centred on two theories that ground this research: Mayer’s Cognitive Theory of Multimedia and Krashen’s Comprehensible input. The two theories are discussed briefly below and in detail in chapter two.

1.4.1 The Cognitive Theory of Multimedia

This theory is rooted in the multimedia principle that states. “People learn more deeply from words and pictures, than from words alone” (Mayer, 2005:31). This theory is grounded in cognitive psychology which explains learning as “a function of internal mental processes that are best described through an information processing model”. Furthermore, Mayer’s theory postulates that the working memory has a visual and auditory component that works parallel to each other. Therefore, learning can be more effective if both components are used at the same time.

This theory is relevant because the various underlying principles account for the effective use of multimedia. These principles are the Individual Difference principle, the Spatial Contiguity
principle, the Temporal Contiguity principle, the Coherence principle, the Modality principle, the Redundancy principle, and the Multimedia principle. These principles help to validate the theory in that they account for the differences in efficacy that could occur whilst using multimedia for learning and teaching. The theory helps to validate the research aims in that it provides a basis for the research questions. The research questions seek to validate this theory by making use of various test measures to explain the principles of the theory.

However, some researchers have criticised the theory for having ‘boundary conditions’. In order to apply each principle of the theory to an individual context, a boundary condition exists that could influence the efficacy of the principle. Nevertheless, Mayer (2005) feels that the boundary conditions help the theory to be used and implemented in a practical and realistic way.

1.4.2 Comprehensible Input

The Comprehension Hypothesis states that we acquire language and develop literacy when we understand messages, that is, when we understand what we hear and what we read, when we receive “comprehensible input” (Krashen, 1985:2). Language acquisition is not a process of which we are consciously aware. “We progress along the natural order by understanding input that contains structures at the next ‘stage’ – structures that are a bit beyond our current level of competence (i+1)” (Krashen, 1985:2).

However fundamental this theory might be to second-language acquisition, it also has some criticisms. Krashen asserts that language acquisition takes place through “contextual and extra-linguistic information” (Gregg, 1988). This notion is difficult to prove as there are too many variables to take into account with regards to extra-linguistic information. The reality is, learners who have not acquired certain grammatical rules beyond their present level of acquisition end up doing a lot of guesswork to understand the message. This guesswork does not automatically translate to acquisition.
1.5 **Significance of the Study**

This study hopes to investigate and determine the effectiveness of using intralingual subtitles for vocabulary recall and recognition for comprehension. This will hopefully contribute to a better understanding of vocabulary acquisition and shed light on the efficacy of incorporating content-related video clips into teaching practices for vocabulary recall and recognition. This investigation seeks to add to the current research on vocabulary recall and recognition and validate the cognitive theory of multimedia learning. In addition, institutions that offer second-language facilitation courses could incorporate more content-related films or TV programmes with subtitles into the classrooms to further support language development.

1.6 **Concept Clarification**

In order to understand the effect of multimedia on second-language vocabulary acquisition, it is necessary to understand the central concepts relating to the theme of the study on which the results and discussion are based. These concepts lay the foundation for the investigation.

1.6.1 **Subtitles**

The term subtitles is often confused with captions. There are, however, some differences between the two. The National Captioning Institute defines captioning as “the process of converting the audio portion of a video production into text which is displayed on a television screen” (Zarei, 2009: 67). In most cases, captions are designed to support people who are deaf or hard-of-hearing. In contrast, subtitles are “permanently affixed on-screen text that presents narration, dialogue, music, or sound effect in a program. Subtitles are typically placed at the bottom of the centre of the television screen” (Zarei, 2009: 67). The assumed audience for subtitles would be people who are able to hear, but who do not understand the language the film or TV programme is in.

1.6.2 **Intralingual Subtitles**

This study makes use of a specific form of subtitles, namely intralingual subtitles also referred to as bimodal subtitling. This practice can be defined as English subtitling from English dialogues. In other words, the captions are in the same language as the narration.

Various research studies support the claim that “simultaneous text presentation can aid novel word learning under certain conditions, both assessed by implicit and explicit memory tests”
Bird and Williams (2002) further add that providing subjects with text and sound versions of unknown words can facilitate recognition memory (Kvitnes, 2013). In this study, intralingual subtitles will be used as a ‘didactic aid’. These subtitles serve as an extra teaching tool because they motivate learners, contribute to pronunciation, syntax and assist vocabulary learning (Koolstra and Beentjes, 1999).

1.6.3 Audio-Visual Material

With all the technology available, language learning has improved and changed correspondingly. This study seeks to make use of technology through the use of audio-visual material as authentic input for second-language learners. Audio-visual material can roughly be defined as the combination of recorded sound and images. Additionally, audio-visual materials can be used as a teaching tool in a second-language learning environment in order to facilitate comprehensible input (Liang, 2013).

In this study, audio-visual material serves as a source of authentic input. Some researchers (Baltova, 1999; Bianchi and Ciabattoni, 2008; Vanderplank, 1988) note that audio-visual material has facilitative potential for second-language learners. The audio-visual material in the form of a DVD in this study, was not necessarily produced for second-language learners in mind because it presents the content in ‘the target language in a naturalistic environment’ (Aurastad, 2013:18).

1.7 Limitations and Delimitations of the Study

This research study, like many others had limitations and delimitations. Price and Murnan (2004:66) define a limitation as “the systematic bias that the researcher did not or could not control and which could inappropriately affect the results”. When considering the limitations of this study various variables such as racial/ethnic identification, socio-economic status, family resources, support structures, gender, ages, and motivation can be considered.

For this study, two groups were used: a control group and a treatment group. The students used in this study could not be randomly assigned to either one of the groups. A reason for this is that the classes selected were pre-existing and could not be broken up for the sake of the study. All of the students in the control and treatment groups were enrolled in the academic literacy
for science course, they were also all first year students, and both groups were comprised of both males and females.

However, the class composition was a limitation that the researcher could not control. The students who participated in this study were from various L1 backgrounds such as Sesotho, Sepedi, Venda, Xitsonga, Tswana, Xhosa, Afrikaans, English, and Zulu, therefore the students had varying levels of English language proficiency. In addition, the participants also had differences related to personality, motivation, learning style, aptitude, and age. Therefore, the population or sample demographics varied.

There were also some delimitations in this study. Price and Murnan (2004:66) define a delimitation as “a systematic bias intentionally introduced into the study design by the researcher”. One delimitation arose because of class availability where the intervention was carried out. The researcher had to select classes that were suitable for testing and research. As a result, the classes that were selected were small and heterogeneous.

Another delimitation was the choice of questionnaires that the researcher selected for the study. Owing to the specific nature of the experimental process, the researcher had to custom design four of the six questionnaires, none of which were piloted beforehand. The first of these was the qualitative questionnaire given to students to understand their feelings and attitudes about watching a film, video or TV programme with or without subtitles. Here, the researcher designed a questionnaire with two sections, one survey section and an open-ended section. The questionnaire used Likert scale type response categories (ranging from strongly agree to strongly disagree).

The second questionnaire was the widely used and accepted Vocabulary Levels Test created by Paul Nation and Norbert Schmitt (2010). The vocabulary level test consisted of four sections, A to D. This test was used to determine students’ vocabulary level knowledge (Schmitt, 2010:19). It focused on vocabulary at four frequency levels: two thousand, three thousand, five thousand, and ten thousand, with each level containing ten items.

The third questionnaire was the Vocabulary Knowledge Scale Test created by Tahereh Sima Paribakht and Marjorie Bingham Wesche (1996). This test was used to measure students’ knowledge of target and non-target words before and after the intervention took place. It was
used to show any gains in initial productive vocabulary knowledge that could have resulted from instructional interventions (Wesche and Paribakht, 1996). (There are more detailed discussions in chapter four and five.)

The fourth questionnaire was the Vocabulary Recognition Activity. In this receptive vocabulary question sheet, participants had to circle all the words they heard while watching the DVD. The sheet contained fifteen target words that should have been circled, and sixty-four control words that should not have been circled. The fifth questionnaire was the Cloze Exercise where the participants had to place each one of the thirty-four target and non-target words into context. The last questionnaire was the Recognition Synonyms Activity where the students had to indicate synonyms for each of the twenty-three target and non-target words taken from the DVD clip. The fourth, fifth and last questionnaires was specially designed by the researcher as no other questionnaires were in existence to suit the needs of the exercise. As such, the reliability of these specific questionnaires could not be confirmed owing to the fact that it was not piloted in advance.

Although similar studies have been conducted internationally, there have been only a few of these studies conducted in the South African context. Thus, the efficacy of intralingual subtitles in videos for content based instruction in second-language learning contexts could not be measured beforehand. As this particular type of research has proven to be quite new in South Africa, there are few similar studies to correlate the results with, and therefore ensuring validity proved difficult.
1.8 **Chapter Overview**

**Chapter One: Introduction**

In this study, the extent to which multimedia can improve ESL students’ vocabulary recall and recognition for comprehension will be investigated. This chapter outlines the context of the study, in particular the academic literacy course, and the current use of multimedia for learning. The research questions, hypothesis and research aims of the study are also outlined. In addition, a brief overview of the theoretical framework is provided, and the important concepts are clarified. Lastly, the limitations and delimitations of the study are briefly discussed.

**Chapter Two: Literature Review**

The literature review is comprised of various sections. The first section explores the important theories that form the framework of the study, and the variables operant in language acquisition that play a role in language development and proficiency. A large section of this is dependent on memory and the learning environment created to enhance second-language vocabulary acquisition. The studies selected for review and discussion centre around the extent to which second-language learners can benefit from the use of multimedia, in particular, intralingual subtitles, for vocabulary recall and recognition.

**Chapter Three: Research Design and Methodology**

This chapter discusses the research design that informed the data collection methods used in this study. Data were obtained from qualitative and quantitative sources. The aim was to determine if the use of DVDs with intralingual subtitles can improve students’ vocabulary recall and recognition for comprehension more than DVDs without intralingual subtitles. Each of the research questions are discussed in addition to the data collection methods which accompany them. Finally, the ethical considerations are briefly explained.
Chapter Four: Presentation and Analysis of Findings

This chapter presents the results and the findings for each of the research questions. This section also discusses the implications of the findings. This chapter concludes the overall results of the study as well as the shortcomings and limitations of the research.

Chapter Five: Synthesis, Recommendations and Conclusions

This chapter presents a short synthesis of the research questions and the literature review. Furthermore, the limitations encountered in the study will be discussed accompanied by their recommendations and further research, and lastly the conclusion.

1.9 Conclusion

This chapter provided a broad overview of the research study. It described the institutional context of where the research took place and further elaborated on the language issues that arose from the preliminary investigation. Furthermore, a concise summary of the theoretical framework was also provided in aid of grounding the study. In addition, most of the important concepts needed to understand this study were explained and defined. The next chapter presents these concepts in detail, and further examines research related to the use of multimedia in vocabulary acquisition.
Chapter Two: Literature Review

2.1 Introduction
This section will provide an overview of various theories in second-language acquisition and vocabulary recall and recognition, as well as a discussion on relevant studies in the field of multimedia and vocabulary learning and comprehension. Lastly, the extent to which second-language learners can improve and learn new vocabulary from watching extracts in DVDs with subtitles will be discussed.

2.2 Theoretical Framework
The theoretical framework for this study is centred on two theories: Mayer’s Cognitive Theory of Multimedia and Krashen’s Comprehensible Input. The two theories are discussed below.

2.2.1 The Cognitive Theory of Multimedia
Multimedia play an important role in promoting memory and learning. Mayer’s assumption is that memory plays a major role in the learning process. Multimedia provide multiple channels able to support the learner’s memory. The three different modes of memory that are important in multimedia learning are sensory memory, working memory and long-term memory (Fazilatfar et al. 2011; Lertola, 2012:62).

Sorden (2004:4) defines the three types of memory as “sensory memory, the cognitive structure that permits us to receive new information that is the visual and auditory memory; working memory, the cognitive structure in which we consciously process information; and long-term memory, the cognitive structure that stores our knowledge base”. In order for deep learning to take place, the information needs travel through all three channels.

Memory and learning are closely related. According to Cami (2006:93) “[t]he term ‘learning’ is often used to refer to processes involved in the initial acquisition or encoding of information, whereas the term ‘memory’ refers to later storage and retrieval of information”. Learning has been proven to be far more effective when sensory modes (visual, auditory) and cognitive strategies (selecting, organizing, and integrating new knowledge with prior knowledge) are employed (Sorden, 2004: 1). When learners use the combination of sound, image, and text to
learn, they make use of deep level processing in order to remember the information. Therefore, learners use all their senses to involve themselves in the learning process.

Hulstijn and Laufer (2001:545) states that “[t]he basic contention of the Involvement Load Hypothesis is that retention of unfamiliar words is, generally, conditional upon the degree of involvement in processing these words”. Therefore, a word is better remembered and retrieved if the learner has actively engaged with the word in more than one context and occasion. Thus, The Involvement Load Hypothesis proposes that “the greater the involvement load, the better the retention” (Hulstijn and Laufer, 2001:545). By enhancing the involvement load through use of multimedia (audio and visual sensory modes), one is actually augmenting the learning process and increasing memory retention. Consequently, film and videos have far more reaching value than just entertainment. They can become excellent teaching tools as they help the learner to build a mental image of the content.

According to Mayer (2001: 31) “People can learn more deeply from words and pictures than from words alone”. This is the guiding principle in this study. Mayer, the researcher behind the ‘Cognitive Theory of Multimedia Learning’ based his theory on a core assumption that learners must be seen as having the sole responsibility in the learning process. They must be ‘active’ in taking accountability for their learning progression and development. Figure one below presents below a model for this theory.

![Cognitive Theory of Multimedia Learning](image)

*Figure 1: Cognitive Theory of Multimedia Learning (Mayer, 2001:37)*
Research suggests that multi-sensory exposure can enhance the efficiency of the working or short-term memory. According to the Atkinson-Shiffrin memory model, “information is stored in structures termed memory” (Sternberg and Sternberg, 2012: 193-200). There are three types of memory stores: the sensory store; the short-term store; and the long-term store. See figure two below for graphical representation of this concept.

![Atkinson and Shiffrin's memory model](image)

*Figure 2: Atkinson and Shiffrin's memory model*

Information enters the sensory store through any environmental input. From the sensory store, the information may be transferred to either short-term memory, temporary working memory or eventually long-term memory. Information is either received through visual or auditory stimuli. The brain processes each differently and this has an influence on how the information is recalled. According to Sternberg and Sternberg (2012), when information is only heard, it is more difficult to process as opposed to when the information is presented visually. In other words, when information is presented visually, there is already a ‘mental image’ as opposed to information presented aurally. A 'mental image' is “a sensory episode that is produced by 'mental pictures' the brain has already stored to establish some type of recall” (Sternberg and Sternberg, 2012:194)

Hilton (2001) examined the variations among visual and auditory short-term memory in the accuracy of correct recall. Thirty-eight students from Indiana University were divided into a control and experimental group. The participants were asked to either look or listen to a number of words selected for the study. The study proved that the visual condition did relatively better
than the auditory condition as the visual short-term memory had a longer and more accurate
duration than the auditory short-term memory.

Therefore, in considering the Cognitive Theory of Multimedia Learning and the Involvement
Load Hypothesis, it is deductible to say that memory recall can be enhanced by audio and visual
input. If learners are able to engage actively with words and images, there is perhaps a sound
argument for the inclusion of subtitles in videos to enhance memory recall, and thus vocabulary
recall.

2.2.2 Comprehensible Input

A notable theorist adding to our understanding of the effect cognitive and affective variables
have on learning, is Stephan Krashen. One of Krashen’s theories developed, termed
‘Comprehensible Input’, explains that learners can ‘acquire’ a language when they receive
input on their current level of competence (stage i) of proficiency and then move to a higher
level (i +1). This is classified as the “natural order” of learning (Krashen and Terrell, 1983:32).
To this end, study material has to be designed in such a way as to reach the learner. The learner
has to understand the message and internalize it in order for learning to take place. Multimedia
(the simultaneous use of texts, sounds and moving images) could help with this process as the
use of words and pictures facilitates the comprehensible input received by the learner (Krashen
and Terrell, 1983:32). Mayer presents this notion in a model demonstrating the impact of
multimedia on second-language acquisition in figure three below.

![Figure 3: Integrated model of second-language acquisition with multimedia (Mayer, 2005)](image-url)
Multimedia can also enhance input. In order to enhance aural input, certain words or linguistic features can be highlighted or paired with images to aid comprehension. For example, introducing subtitles or captions has resulted in better retention of vocabulary words (Mayer, 2005). Furthermore, a study conducted by Baltova (2006) provided empirical evidence for using a video with second-language (L2) subtitles. In this study, learners’ understanding of authentic texts and vocabulary learning were enhanced with the simultaneous presentation of spoken language, printed text, and visual information, all conveying the same message.

Another theory of Krashen is the ‘affective filter hypothesis’, which suggests that learning is dependent on the student’s level of motivation and that learning is impaired if the student is under stress or lacks a desire to learn the language (Krashen and Terrell, 1983:38). Krashen argues that learning must take place within a relaxed and familiar environment. Therefore, anxiety, self-confidence and motivation are affective variables which will influence how the learner responds to language learning (Krashen and Terrell, 1983:38).

In order to optimise language learning within a stressful environment, authentic materials such as films engaging learners in language activities, can be introduced to reduce anxiety and the ‘affective filter’ which allows acquisition to take place (Hayati and Mohammadi, 2009; Alipour, Gorjian, and Kouravand, 2012: 735). Most, if not all, students enjoy watching movies and films. They view such an experience as highly motivating and entertaining. Furthermore, videos such as films and documentaries have the potential of contextualising the learning process for the students and bringing the study material to life, especially if the concepts and information in the syllabus are distant from students’ frame of reference (Sherman, 2003:1; Cami, 2006:100).

2.2.3 Summary

Vocabulary acquisition can be enhanced through multimedia in various learning contexts. Using multiple channels of input facilitates cognitive processing, therefore enriching the learning environment. Learners who are exposed to content through multimedia have a greater retention rate than those only exposed to one form of media such as print material. Multimedia reaches auditory and visual learners supporting comprehensible input. Therefore, in light of the above mentioned principle, DVD content in combination with an aural and written explanation/narration may facilitate comprehensible input for the students.
2.3 Literature Review

2.3.1 Vocabulary Knowledge

Much research has been conducted on second-language vocabulary acquisition. However, limited theories explain the entire process, as it is fairly complex and varies in different contexts. The literature review covers an explanation on vocabulary knowledge, in particular vocabulary use and acquisition, vocabulary breadth and depth, and the difference between receptive and productive word knowledge. Furthermore, the second theme, subtitling, is related in that it further explores the use of subtitles as an aid to vocabulary acquisition. The last theme examines the context at the University of the Free State with particular focus on the English for Academic Course and the presence of linguistic imperialism.

Vocabulary is central to language learning. Laufer and Goldstein (2004:403) argue “[w]ords are the first and foremost units of meaning”. Words are the building blocks for comprehension and meaning making, and ultimately a form of individual expression.

Knowing what a word means can entail many aspects of knowledge. According to Laufer and Goldstein (2004:400):

> Lexical knowledge can be defined as the sum of interrelated subknowledges - knowledge of the spoken and written form, morphological knowledge, knowledge of word meaning, collocational and grammatical knowledge, connotative and associational knowledge, and the knowledge of social or other constraints to be observed in the use of a word.

Therefore, knowing how and when to use a word is dependent on many variables.

2.3.1.1 Vocabulary Breadth and Depth

When it comes to defining vocabulary knowledge, research agrees that it is not something measurable in one single test. Rather, in order to establish a good idea of what the learner does or does not know, there should be a broad range of tests. Any test claiming to test vocabulary knowledge should include at least two dimensions such as vocabulary breadth and depth.

Shen (2008:135) defines vocabulary breadth as “the number of words that a person knows”. Tests aiming to measure vocabulary breadth or size are also referred to as placement tests.
These tests select word families based on their frequency in a corpus. The word families are compiled in terms of frequency in thousands. In other words, the first list would be the most frequent words, and from there on less and less frequent. An example of this would be the Vocabulary Levels Test (VLT) by Nation (Nation, 1990).

The second dimension is that of vocabulary depth. Depth tests need to test more than one component of knowledge. One such example is a test designed to measure vocabulary development. An example of a test using the developmental approach is the Vocabulary Knowledge Scale test which uses scales “to describe the stages of acquisition of a word” (Shen, 2008:136-137).

According to Wesche and Paribakht (1996) vocabulary knowledge scale tests seek to measure the learner’s progress along a continuum of knowledge. This is a test designed to measure discrete items in accordance of perceived depth. The purpose of this test is to “assess initial vocabulary gains per target word, and therefore tracks the progress of words in memory, rather than the development of the learner’s lexicon” (Schmitt, 2010:19). The words in the test are decontextualized in order to assess whether the student can recall or recognise the words without context prompts or cues. For example, “I have seen the word, but I don’t know what it means; I think the word means______”. The test wants to test the learner’s assumed knowledge of the target word. However, the limitations of this test lie in the fact that it can only test a limited number of words.

2.3.2 Vocabulary Use and Acquisition

This section reviews the notion of receptive and productive knowledge in vocabulary learning, discussed in more detail as passive or active knowledge. The reasons for the difference and relevance to vocabulary learning will be discussed below.

2.3.2.1 Vocabulary Learning is Incremental by Nature

Vocabulary is a slow learning process because acquiring and mastery of lexical items is an ongoing development. As this is such a slow and gradual process, learners cannot learn vocabulary from one single exposure. Learners may acquire different levels of word knowledge such as word form, collocation competence, and meaning at different times. Therefore, a
learner only acquires one aspect of word knowledge at a time, and this does not automatically mean that other aspects of word knowledge are ‘learned’.

Research from various studies (Weshe and Paribakht, 1996) suggest that receptive mastery is more often than not developed before productive mastery. Bearing this in mind, it is reasonably clear that word learning is a complex and slow progression. Consequently, in order to measure vocabulary knowledge, a study should focus on various measures of word knowledge (Schmitt, 2010:19-22).

2.3.3 Measuring Receptive and Productive Word Knowledge

When discussing vocabulary depth of knowledge, the distinction between receptive and productive knowledge is made. Although the exact relationship between the two is not clear, research has shown that learners demonstrate more receptive than productive knowledge (Schmitt, 2010; Weshe and Paribakht, 1996). There are also multiple interpretations with the understanding of what each concept entails. Thus, the distinction between the two are not exactly clear, which presents possible problems in the measurement of these two constructs.

One interpretation of these two constructs is provided by Melka (1997) in Schmitt (2010:81-84). Melka suggests that “[r]eceptive and productive mastery lie on a continuum, and that knowledge gradually shifts from receptive mastery towards productive mastery as more is learned about the lexical item”. Furthermore, Laufer and Goldstein (2004) developed a way to categorize vocabulary knowledge. They suggest the following model which might in understanding this continuum. (> = more difficult than):

- active (productive) recall > passive (receptive) recall > active (productive) recognition
  > passive (receptive) recognition

As mentioned previously, there are numerous issues when it comes to the measurement of these two aspects. The results are highly dependent on the type of tests used to measure each form as they are measured in different ways. When measuring vocabulary knowledge, two aspects namely recognition and recall are usually identified and discussed. Measuring and testing these two forms of word knowledge is very different and requires separate processing strategies (Cariana and Lee, 2001; Jonassen and Tessmer, 1996). In other words, recall and recognition
knowledge should be tested in different ways. A further explanation is given regarding each below. Both these aspects can be assessed using selective and context-independent test items. Below is a description of each along with sample type questions.

2.3.3.1 Recognition

In a recognition task, students are asked to “select or identify an item as being one that they have been exposed to previously” (Read, 2000: 155). Therefore, test-takers show that they understand the meaning after being presented with the target word. This is an example of using receptive knowledge. Receptive means “responsive to a stimulus” (Read, 2000: 155). Therefore, “in a recognition-memory task, you respond to stimuli presented to you and decide whether you have seen them before or not” (Sternberg and Sternberg, 2012: 187-189).

Here is an example Read (2000: 155) gives of a ‘recognition’ item:

\textit{Loathe means } A. dislike intensely  \\
B. become seriously ill  \\
C. search carefully  \\
D. look very angry

Recognition tests usually make use of multiple choice questions where the learners have to select or guess the correct response from the alternatives given. These types of tests “strengthen any existing memory traces” (McDaniel and Mason, 1985). Laufer and Goldstein (2004) argue that it is an active process to recognise a word once the meaning is known. When the target word is given, the student must recognise its form and select the synonym with the same meaning. This is referred to as “passive recognition” (Schmitt, 2010:85).

Here is an example from the DVD excerpt that Schmitt (2010:85) classifies as a ‘passive recognition’ item:

\textit{The barren snows of the Arctic are miles from the North Pole. Barren in this sentence means:}

\begin{itemize}
  \item [a)] Unproductive
  \item [b)] Devoid
  \item [c)] Sterile
  \item [d)] Impotent
\end{itemize}

(Please refer to Appendix two for a screenshot of the DVD excerpt.)
However, one cannot make assumptions that the target words being tested are ‘learned’. Most vocabulary studies administering only ‘receptive multiple choice tests’ presuppose that if the target items were correct, the students or learners have acquired the lexical item; however, this is not the case. These types of tests only measure the form-meaning link at a recognition level and can be classified as the primitive stage of vocabulary learning process (Schmitt 2010:153).

2.3.3.2 Recall

Sternberg and Sternberg (2012: 187-189) explain that, when a learner recalls something, they have to produce a fact or something like an item from memory. This type of task requires expressive and productive knowledge. Nation (2001) reports in Song (2002:114) that “productive vocabulary knowledge is seen as knowing how to express a meaning through speaking or writing and retrieving and producing the appropriate spoken or written form”. For example, this may be a fill-in-the-blank exercise:

*Because of the snow, the football match was ________ until the following week.*

Recall type tests require more from a learner than recognition type test would because the learner has to search for the correct response within their mental representation of the newly experienced information (Cariana and Lee, 2001; Glover, 1989; McDaniel and Mason, 1985).

2.3.4 Summary

In order for students to be successful at a tertiary level, they need to acquire academic language in their discourse or discipline. In other words, they need a large vocabulary in order to access textbooks and understand what they are reading. In this study, the South African context, students come to university with varying levels of English language proficiency, and therefore varying levels of vocabulary knowledge.

As acquiring the vocabulary of any language is a slow and incremental process, students should be exposed to different content-based contexts in order to facilitate this process. In the course of language acquisition, students or learners will recognize and understand (receptive knowledge) certain words more with long term exposure. This does not automatically mean that they will be able to use the words (productive knowledge) in written or spoken form. Therefore, when students are provided with authentic content material in the form of audio-visual media, their ability to understand the subject matter is enhanced, and they are exposed
to the words in a written and spoken form. Consequently, using DVDs with subtitles to facilitate this development might prove useful for second-language vocabulary acquisition.

2.4 Subtitling

2.4.1 The Effects of Subtitling Practices on Vocabulary Recall and Recognition

To be able to read, write, speak and understand a second or foreign language, it is vital to acquire vocabulary. Teaching has often neglected vocabulary learning as an essential component of language learning. Talavan (2007: 3) reinforces this: “[v]ocabulary learning has commonly been one of the most neglected areas of language learning, since many educators prefer to dedicate more time and effort to other ‘more complicated’ issues, leaving vocabulary learning for the student to cope with by him/herself”.

Various researchers have argued that learners acquire vocabulary through the content approach in focusing on the other more important skills, and that vocabulary learning is incidental (Hai-peng and Li-jing, 2007; Ghaedsharafi and Bagheri, 2012). However, there is extensive research that suggests vocabulary forms the basis of achieving and understanding any other language task. The range and size of one’s vocabulary will determine the breadth and depth of reading comprehension and conversation fluency. Needless to say, learning vocabulary becomes the groundwork for learning a language (Hai-peng and Li-jing, 2007; Ghaedsharafi and Bagheri, 2012).

Because some students lack the appropriate vocabulary in their home and second-language, it is likely that this can create learning barriers in their tertiary education. They are forced to come into contact with academic discourse in their studies and initially they seem to make very little distinction between written (CALP) and spoken language (BICS). For instance, many students who speak a second language (L2) understand the primary meaning of a word, but often struggle with the secondary meaning or even the derivations of the same word (Carrel 1988:240; Koda 2004: 71). This, has a direct effect on their understanding of a text (written) or dialogue (speech). Hence, vocabulary learning is a vital part of each student’s life (Alipour, Gorjian, and Kouravand, 2012).

A study conducted by Lertola (2012) investigated the effects of subtitling practise on incidental vocabulary acquisition in the Italian foreign language class. The results of the study indicate
that both conditions (subtitling and non-subtitling) result in a clear improvement in the learners’ incidental vocabulary acquisition. Therefore, this research supports the positive results obtained in recent studies on the use of the subtitling practise as an effective pedagogical tool in the EFL class.

A study conducted by Neuman and Koskinen (1992) proposed that captioned television, as a multisensory, largely entertaining medium, might be an important instructional resource in learning vocabulary and concepts. This study took on several assumptions. The first being, that television’s combination of pictures and sounds might help children establish relationships between words and meanings. Therefore, when students see the written form of the spoken text, they link the sounds and associated images with the words (i.e. the image of a car and the word ‘car’ appearing on the television screen). Their retention is thus enhanced by the visual association of the image with the sound and text. For this reason, one cannot overlook the potential usefulness of using authentic (native) subtitled video clips for vocabulary learning. Another assumption is that learners benefit from captioned television because in viewing the film they create expectations about the content that is still to come and anticipate the corresponding new vocabulary (Talavan, 2007; Neuman and Koskinen, 1992).

Furthermore, television programmes and films making use of subtitles can provide students with immediate feedback and contribute to learner confidence. In other words, the students formulate predictions about the content and by viewing the film, their predictions are either confirmed or rejected. The language in many films especially English films, is not always intended to accommodate speakers of other languages. For example, the use of idioms collocations and subject specific vocabulary might be difficult for non-English speaking people to understand. Therefore, one has to take into consideration the conversation speed, dialect and pronunciation of unfamiliar words to non-English speaking people. Consequently, films have the potential for creating a high level of insecurity and anxiety in students who are not so proficient in the target language.

However, when subtitles are incorporated into the film, it creates a feeling of confidence in learners which can help them feel ready and motivated to watch foreign television and, films (Talavan, 2007:2). Krashen also suggests that “language programmes must be highly
motivating, non-evaluative, and designed to involve children in ways that cause them temporarily to ‘forget’ that they are hearing or reading another language” (Krashen, 1985:4).

2.4.2 Intralingual Subtitles

Since the 1970s the process of audio-visual translation has taken on many new forms of subtitling. The most relevant here in terms of the current research is that of intralingual subtitling. Intralingual subtitling also known as ‘monolingual’ subtitling or ‘closed captions’ is the same language as the audio text speech. They were originally intended for ‘minority’ audiences such as immigrants wishing to develop their proficiency in the language of the host country (Baker and Saldanha, 2009: 15). The use of subtitles has in more recent years progressed to an accessibility aid for deaf or hard-of-hearing target audiences.

The other more suited intention for audio-visual translation in this context of language learning and teaching is its use as a didactic aid for those who are not familiar with the language spoken in the audio-visual text. In fact, when intralingual subtitling is incorporated for learning purposes, an additional challenge of listening comprehension is also overcome (Cami, 2006:87-90).

The benefits of subtitles are abundant. Subtitles have been recognized as having far more value than being a distraction and a source of laziness. Many studies have shown that students use subtitles for support during the language class. Besides allowing better content comprehension, learners also draw on subtitles for finding new words and checking or fixing spelling (Cami, 2006:95). Cami (2006:95) reports that “intralingual subtitles can improve reading and listening comprehension, vocabulary acquisition, word recognition and overall motivation to read among students who are learning English as a foreign or second language”.

However, using subtitles can be daunting to students at first, especially if they come from an environment where there is not much exposure to television or any other kind of mass media. Vanderplank (1988, 1990, 1993) reports in his experiments with text aids, that some kind of strategic adjustment was required when working with such cases. Some of the students he worked with, in fact, declared feeling initially disturbed by subtitles, but they eventually managed to develop adequate personal strategies to process the three channels. He also noted
that such strategies were more readily present in students coming from countries where subtitling is a common occurrence.

More importantly, intralingual subtitles can be used as a teaching and training tool for vocabulary recognition and recall. The Research Centre for English and Applied Linguistics of the University of Cambridge in the UK showed that simultaneous presentation of sound and text rather than sound or text separately enhances spoken word recognition and recognition memory (Cami, 2006:86-93). The simultaneous presentation of soundtrack and written text improves recognition memory for spoken words and can aid novel word learning as assessed by explicit and implicit memory tests (Bird and Williams, 2002: 506). A study conducted by Stewart and Pertusa (2004), explored the gains in vocabulary recognition made by intermediate students viewing films in Spanish with English subtitles and others watching the same films with Spanish subtitles. They reported that intralingual subtitles are more effective in enhancing vocabulary recognition (Alipour, Gorjian, and Kouravand, 2012: 735).

In conclusion, there are several variables operant in multimedia exposure acquisition influencing the rate of second-language acquisition. These variables can be affected and guided by adjusting the quality of input, to create favourable learning conditions. Multimedia, in the form of audio-visual material, can supplement and complement content-related second-language learning. However, in order for the audio-visual material such as clips, series, films, short films, or documentaries to be successful in developing or cultivating language skills, it is necessary for them to be clear, independent, self-contained, and interesting enough to motivate students and encourage reading and writing within their field of discourse (Talavan, 2007:1). When linking audio-visual material with vocabulary instruction, the repeated exposure of target words in context can influence various affective variables, thereby creating favourable conditions for vocabulary learning.

2.4.3 Summary

Supplementing teaching with audio-visual material can facilitate comprehensible input and incidental vocabulary acquisition. The combination of picture, words, and sound helps students create a relationship between the words and their meanings. The practice of intralingual subtitling can help students who are learning a second language, overcome the listening
challenge and even improve reading. Therefore, intralingual subtitles can be used as a teaching and training tool for vocabulary learning.

2.5 Linguistic Imperialism

In order to further explore the variance in results from the cloze exercise, there is relevance in exploring the history of English in South Africa. The British brought English to South Africa in 1806 when they arrived in the Cape. Later on in the late nineteenth century, English became the language associated with the promise of empowerment to many black South Africans and many white Afrikaners, as is become the lingua franca. Since 1994, English has been one of the eleven official languages and as a result, moved out of the hands of mother tongue speakers (Silva, 1997). This section will briefly reflect on the influence that English has had on the South African schooling system.

In this study, the treatment group comprised thirty-two black students who spoke Sepedi, Sotho, Twana, Xhosa, Xitonga, Afrikaans, and Zulu and the control group comprised thirty-two white students, the majority of whom spoke Afrikaans. Within these groups, there were differences in English language proficiency. Many of these students came from schools where they had initial instruction in their mother tongue. Thereafter, the rest of their schooling years saw English as their first additional language. This is because English has long been seen as a form of access to a better education and life. As a result, some parents enrol their students into English schools (Ndebele, 1987).

Many students struggle with this transition as the teaching materials are not suited for the purpose and context. In addition, teachers themselves are second-language speakers of English and “products of the Bantu education” (Gough in Klerk, 1996:54). This matter is further compounded by the fact that the English syllabuses in most schools do not focus on developing good reading and writing skills. Consequently, there is a lack of exposure to academic literacy skills, or CALP skills (Gough in Klerk, 1996).

These students when entering university are therefore underprepared in terms of academic skills. They are overwhelmed by the language demands made on them, and thus struggle to cope with the workload. As a result, many of these students need language and content support.
According to Watermeyer (Klerk, 1996: 104), “Apartheid not only kept South Africans apart on the basis of race, but in schools pupils were also separated on the basis of home language”. Although the students in this study are not direct products of apartheid, many of them come from school backgrounds where they chose to either study in English or Afrikaans. They took English or Afrikaans as an additional language but very few schools focused on authentic interaction in these languages. In other words, lessons in the additional language focused more on language drills, reading comprehensions and prepared orals, rather than realistic communication.

However, many (if not all) of the students in this study were exposed to television from a very young age. Klerk (1996: 121) reports that “language proficiency does appear to be influenced by the amount of regular exposure to a standard variety of English”. Therefore, frequent exposure received by students from television might have influenced this acquisition.

2.6 The English for Academic Literacy Course at the University of the Free State

In order to relate the research aims to the context of the study, a short description of the current situation and the challenges relating to teaching vocabulary in the academic literacy courses is given below.

2.6.1 Current Situation

The Academic Literacy courses presented at the University of the Free State (presented on all three campuses) serves approximately six thousand students every year. These courses are presented to various faculties – Humanities, Natural and Agricultural Science, Economics and Management Science, and Law.

The academic literacy courses serve several functions. Firstly, they support the three thousand, three hundred and one first time undergraduate students who have English as a second language (ESL). As many as sixty-five percent of the students studying at the UFS take English-medium courses, which are not in their mother tongue (van Wyk, 2006). Students come from all over the Free State, thus some of the mother tongue languages include, Sesotho, Sepedi, Tswana, Xhosa, Zulu, and Afrikaans to name a few. Therefore, these literacy courses focus on the acquisition of English skills in the development of academic discourse.
The English for Academic Literacy Course for Sciences (EALN 1508) centres on writing guided academic assignments for the purpose of developing the students’ writing ability in the science discourse. It also focuses on intensive and extensive reading, and listening as vital to developing academic skills. The course book aims to introduce students to a variety of topics in Earth Science and Biology relevant to life today through using sustained content based instruction (CBI).

Writing forms an essential component of the assessment of this course. On a weekly basis students have to submit work in the form of reading reaction about a graded reader, paragraphs (in the first semester) and eventually expository essays (in the second semester). They spend four hours a week (sometimes more) writing in their additional language, English. The students are given content based topics to write about. These are discussed and thrashed out in class in order to help students prepare and understand the writing prompt. Each of the steps of the writing process is scaffolded for the learners to enhance comprehensible input.

2.6.2 The Challenges

Students tend to struggle with the acquisition of academic language proficiency skills. These skills are very important for university or academic success. As a result, students are overwhelmed by the language demands made of them through the content, in addition to their lack of understanding the vocabulary.

In the academic literacy courses, students are introduced to the vocabulary they will encounter in their discipline areas. It is undeniable that there is a strong relationship between the quality of writing and depth and breadth of vocabulary. Thus, the challenge is to provide students with as much content related vocabulary as possible and thus improve the quality of the writing.

2.6.3 Possible Benefits of Vocabulary Development using DVD Subtitles

Currently, video (audio-visual content material) is not used to its full potential within classrooms. As mentioned before, supplementing teaching with audio-visual material can facilitate comprehensible input and incidental vocabulary acquisition because the use of multimedia (as a didactic tool) can provide additional channels for English. Consequently, films and videos have far more reaching value than just entertainment. They can become excellent teaching tools as they help the learner to build a mental image of the content.
2.6.4 Conclusion

This chapter discussed the theoretical framework underlying this study and proved an outline of the literature review. The next chapter will discuss the research design and methodology.
3 Chapter Three: Research Design and Methodology

3.1 Introduction
The aim of the study was to determine if the use of DVDs with intralingual subtitles can improve students’ vocabulary recall and recognition for comprehension to a greater degree than DVDs without intralingual subtitles. In order to examine this research aim, this chapter will elaborate on the research methodology informing the research design and data collection methods aligned with the research questions. In addition, further details about population and sampling will also be provided.

The main research question for this study is as follows: How effective is the use of DVD subtitles in enhancing student vocabulary in second-language contexts?

Based on the main research question, the sub-questions are as follows:

1. What are students’ perceptions of DVD subtitles?
2. What are students’ levels of vocabulary knowledge?
3. How does watching a DVD with or without intralingual subtitles improve students’ vocabulary recognition?
4. How does watching a DVD with or without intralingual subtitles improve students’ vocabulary recall for?
5. How can DVD subtitles be used effectively to enhance student vocabulary in second-language learning contexts?

3.2 Research Design and Methodology
3.2.1 Case Study
This research study, undertaken at the University of the Free State, is aligned with the case study approach. A case study is defined as a “systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest” (Maree, 2010:75). The case study approach was selected because it offered an in-depth study of the complex research environment and the context at the University of the Free State. As this study was particularly
an investigation into how students could better acquire vocabulary in a multimedia context, a case study approach can provide a better understanding of the situation.

In this context, the research study was an investigation into whether intralingual subtitles could improve ESL students’ vocabulary recall and recognition for comprehension. In order to answer the research questions related to the research aim, multiple measures of evidence were collected and analysed. The context at the University of the Free State provided an opportunity to gain greater insight and understanding into the second-language learning situation in the Academic Literacy course.

As with other approaches, a case study research has both strengths and limitations. In terms of strengths, the case study approach has more than one advantage. Firstly, case studies usually make use of a lot of data, as is the case with this research study (Maree, 2010). When multiple sources and techniques are used, the researcher gains a bigger picture of the phenomenon being studied. This usually makes the study credible because so many sources of data were used. As a result, case studies can help the researcher understand a complex case where multiple angles need to be considered. Through researching the many variables that come into play, the researcher is able to make connections between certain aspects and their relationships (Hodkinson and Hodkinson, 2001). Furthermore, case studies present various realistic environments because they are studied in relation to real contexts. As a result, the research environment is not rigid and allows for adaption. Thus, when unexpected and unusual events take place, they can also be studied.

However, there are also some limitations involved when using the case study approach. As the research focuses on a specific context, there is the risk that the research results are not generalizable across different contexts (Creswell and Clark, 2011). Another impeding factor is that some of the data in case studies tends to be irrelevant and not all the data collected can be used (Creswell and Clark, 2011). Therefore, a case study approach has various favourable and unfavourable implications that should be considered when understanding the research context.

3.2.2 Qualitative and Quantitative Research

This study made use of both qualitative and quantitative research to bring about a better understanding of the use of DVD subtitles in enhancing students’ vocabulary in ESL contexts.
According to Van Maanen (1979:520), “qualitative research is an umbrella term covering an array of interpretative techniques which seek to describe, decode, translate, and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world”. As such, the researcher employed qualitative research techniques in order to collect, understand and investigate learner opinions, attitudes, and beliefs regarding the use of DVD subtitles for vocabulary recognition and recall. In this study, in order to explore students’ perceptions of DVD subtitles, a qualitative questionnaire was employed to gather the information needed.

Qualitative research holds various benefits. Firstly, qualitative data lends itself to understanding people’s experiences, attitudes, and underlying values. As such, the data collected allows the researcher to study a particular context and to understand the behaviour of participants in certain conditions and from that, make certain deductions. Furthermore, qualitative research is often open-ended and thus allows participants to raise issues of which the researcher is not aware. Therefore, the researcher is made aware of other factors with the potential to impact the research study. This information adds to the understanding of the effects of the intervention and thus helps the researcher document change (Choy, 2014).

However, qualitative research also has disadvantages. Firstly, the process of collecting and analysing the data can be quite time consuming. Furthermore, not all the data collected can be verified as objective (Choy, 2014). The participants in the study answer open-ended questions based on their personal experience and thus bias and prejudice might influence their input. However, in this study the benefits of qualitative research outweigh the disadvantages.

Quantitative research is defined by Aliaga and Gunderson (2002) as “explaining phenomena by collecting numerical data that are analysed using mathematically based methods” (Muijs, 2011:1). Thus, according to White (2002:47), quantitative research is “based on the collection of facts and observable phenomena, and scientists use these to deduce laws and establish relationships”. The benefits of quantitative research are that it “describes, explains, and tests, and examines cause-and-effect relationships” (White, 2002:47). This study used both
quantitative data and qualitative data, the former for examination and analysis and the latter to gain a deeper understanding of the use of DVD subtitles in enhancing students’ vocabulary.

However, quantitative research also has disadvantages. For example, there are various aspects of humanity, such as identities, perceptions and cultural values that cannot be “reduced to numbers” or taken out of context in order to convey meaning (Choy, 2014:102). In addition, quantitative research relies heavily on large numbers which may not be viable in all research studies. However, this study shows the benefits of quantitative research in that the data collected could be used to make a logical deduction based on statistical analysis and thus informed the findings of the study.

In this study the qualitative data were used to complement the quantitative data, which, as Creswell and Clark (2011:62) point out, enriches the study because, “the researcher can bring together a more comprehensive account of the area of inquiry in which he or she is interested in if both quantitative and qualitative research methods are employed”. Therefore, in order to explore the effectiveness of DVD subtitles in enhancing students’ vocabulary in an ESL context, both qualitative and quantitative approach were employed to gather the required information.

3.3 Population and Sampling

Sampling is defined by De Vos, et al (2005:223) as “taking a portion or a smaller number of units of a population as representative or having particular characteristics of that total population”. The population in this study were students from the University of the Free State, in particular from the South Campus. This satellite campus offers the Preparation Programme and other bridging courses. In this study, the students were enrolled in courses relating to Natural and Agricultural Sciences, thus they need to enhance their vocabulary in the area of science.

The English language proficiency levels of students involved in these courses ranges from low-intermediate, intermediate, upper intermediate and advanced. Often, all these levels occur in the same class. These students have very good basic interpersonal communication skills (BICS), yet they struggle with cognitive academic language proficiency (CALP) in the target language (English). Consequently, they are enrolled into the Academic Literacy programmes.
For this study, students were selected through cluster sampling. Cluster sampling involves “the random selection of a number of clusters from which either all elements or a randomly selected number form the sample” to be tested (Maree, 2010:176). Therefore, in this study two groups selected were relatively homogenous in their characteristics. Both groups comprised of students studying English in their second language; males and females; similar AP scores; similar reading level scores; and took the EALN 1508 class during the same day and time. There were however some differences between the two groups, when it came to their home language and race.

Therefore, the sample consisted of two groups, sixty-four students in total. Each student participated individually in the study. The treatment group consisted of eight male and twenty-four female, from various L1 language backgrounds, namely Sesotho, Sepedi, Venda, Xitsonga, Tswana, Xhosa, Afrikaans, English, and Zulu. The control group also consisted of twenty male and ten female, with Afrikaans being the only L1 language background. These two groups existed before the study, they were not groups created by the researcher. Thus, they were “naturally occurring groups” of which only one received the treatment. Therefore, students were not randomly assigned to groups, as they would be with an experimental design (Graziano and Raulin, 2012:230). (Please see section 3.6.1 for a full analysis of the population.)

3.4 Materials

For the DVD video to have any success, it had to be related to the science content dealt with in students’ academic literacy courses regarding Weather and Climate, chapter six in the course book Academic Encounters, the Natural World by Jennifer Wharton (2009).

For this reason, the DVD entitled “Planet Earth: The Complete BBC series” narrated by David Attenborough (six Disc set) [2012]. (See Appendix two for a DVD screenshot) was chosen as most suitable. The excerpt chosen entitled, “Seasonal Forests” dealt with the coniferous and deciduous seasonal woodland habitats experiencing change during the seasons. This clip was approximately fifteen to twenty minutes in length, as it was only a short extract from the original sixty-five minutes full length video. This section of the video contains the target and non-target words used in this study.
The main rationale for making use of a video that is related to the content is based on the success achieved with vocabulary learning and content-based instruction. This involves the learning of a language while studying the content matter. Stroller and Grabe (1997) support this view by mentioning the following reasons: “firstly, by sticking to a single theme in terms of subject matter, the vocabulary load becomes much less and more manageable; secondly, by remaining within the same content area, the repetition of the content-related vocabulary is higher; thirdly, by limiting the subject matter to a particular field, the learners are able to develop knowledge of the subject area and can therefore with more ease and likelihood guess from the context.” (Hinkel, 2011: 631-632)

Before students watched the video clip, they were prepared in terms of the content they were going to watch. They were given a clear idea of what to expect in the video clip and told how long they were going to watch the clip. Both groups of students (control and treatment) viewed the video clip during their scheduled EALN 1508 class time (both groups simultaneously) as this was the most convenient arrangement for the researcher and the students. The students had one opportunity to watch the video clip before they were given the questionnaire to answer.

3.5 Data Collection

The data collection in this study is aligned to the research questions. Firstly, the data collection procedure will be outlined. Secondly, a brief overview will be provided regarding the demographic data. Lastly, each research question will be discussed and related to the research aim. For each question, the data collection methods will also be described.

3.5.1 Data collection procedure

This study took place over six weeks in three phases during the second semester of the year. The phases constitute different stages of the research study. Each will briefly be described below.

Phase one, the pre-intervention stage, was created in order for the researcher to attain diagnostic information about the students and their language proficiency before the intervention took place. This phase stretched over three weeks, each week during the two hour class for both groups in two different venues at the same time. Each week a different test was taken down in
both groups. In the first week, the researcher explained the focus of the research study and asked students to complete firstly the Consent Form (see Appendix one), and then the Qualitative Questionnaire. In the second week, students were asked to complete the Vocabulary Levels Test and in the third week, students were asked to complete the Vocabulary Knowledge Scale test. Each of these questionnaires are discussed further on in the chapter.

Phase two, the intervention stage, was created in order for the researcher to investigate the difference between using a DVD with and without intralingual subtitles for vocabulary recall and recognition. This phase took place in week four over a two hour class for both groups in two different venues at the same time. At the start of this class, there was a pre-discussion (1) with each group where they were told what to expect from the video clip in terms of length and content. Thereafter, the DVD excerpt was shown to the students (2) in their respective groups. The treatment group was shown the DVD excerpt with subtitles and the control group was shown the DVD excerpt without subtitles. After each group was shown the DVD, both groups had to complete the same Vocabulary Recognition Activity (3.1) and the same Select Deletion Cloze Exercise (3.2). Each of these questionnaires are discussed further on in the chapter.

Phase three, the post-intervention stage, was created in order for the researcher to investigate the delayed effect of the experimentation. This phase took place over two weeks in the two hour class for both groups in two different venues at the same time. During week five, each group took the Recognition of Synonyms Activity. During week six, each group took the same Vocabulary Knowledge Scale test to measure the difference between this and the Vocabulary Knowledge Scale test taken in week three. Each of these questionnaires are discussed further on in the chapter.
Below is a graphic representation of the study over the period of six weeks.

*Table 1: Graphic representation of the three phases in this study*

<table>
<thead>
<tr>
<th>Phase</th>
<th>Weeks</th>
<th>Naturally Occurring Group A Treatment Group</th>
<th>Naturally Occurring Group B Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-intervention</td>
<td>Week 1</td>
<td>Qualitative Questionnaire</td>
<td></td>
</tr>
<tr>
<td>stage</td>
<td>Week 2</td>
<td>Vocabulary Levels Test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Week 3</td>
<td>Pre-Test: Vocabulary Knowledge Scale Test</td>
<td></td>
</tr>
<tr>
<td><strong>Phase 2:</strong></td>
<td>Week 4</td>
<td>1) Pre-discussion</td>
<td>1) Pre-discussion</td>
</tr>
<tr>
<td>Intervention</td>
<td></td>
<td>2) Students shown DVD with subtitles</td>
<td>2) Students shown DVD without subtitles</td>
</tr>
<tr>
<td>stage</td>
<td></td>
<td>3) Questionnaires</td>
<td>3) Questionnaires</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.1: Vocabulary Recognition Activity</td>
<td>3.1: Vocabulary Recognition Activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2: Select Deletion Cloze Exercise</td>
<td>3.2: Select Deletion Cloze Exercise</td>
</tr>
<tr>
<td><strong>Phase 3:</strong></td>
<td>Week 5</td>
<td>The Recognition of Synonyms Activity</td>
<td></td>
</tr>
<tr>
<td>Post-intervention</td>
<td>Week 6</td>
<td>Post Test: Vocabulary Knowledge Scale Test</td>
<td></td>
</tr>
</tbody>
</table>

3.5.2 Demographic Data Collection

3.5.2.1 Age Distribution

Students were asked to provide their age for this study. As the students selected for this study were undergraduate students, they were in the range of eighteen to twenty years in age (Steyn, 2009) Here, it is evident that the students’ age group in the study, was very much the same for the two groups. Both groups were first-year students enrolled in Natural and Agricultural Sciences on the University Preparation Programme.

It was important to consider age distribution for this study in order to have a comparable sample, in other words it would be invalid to compare to groups that were not the same when measuring the intervention.

3.5.2.2 National Benchmark Test – Academic Literacy Distribution

All of the students that were participants in the study wrote the NBT Test which was composed and created by leading content specialists and researchers from various Higher Education (HE) institutions across South Africa. The NBT project is managed by the Alternative Admissions
Research Project (AARP) in the CHED (Centre for Higher Education Development) at the University of Cape Town. The NBTs were developed to serve as a placement measure and were designed “to be used in addition to NSC (National Senior Certificate) results, to assist higher education institutions to understand the results, to assist higher education institutions to understand the meaning of the results, with the aim of helping institutions place students into appropriate curricular provision such as extended or augmented programmes, or remedial language courses” (Yeld, 2007:611). The NBTs consist of two tests, the AQL (Academic Literacy and Quantitative Literacy) test and the MAT (Mathematics) test. The part of the AQL that is in discussion here is the academic literacy section of the test, as it tests the abilities that relate to the competences pertaining to academic proficiency (Drennan, 2011: 75-78). “The NBTs together with the AP scores are thought to serve as a possible predictor of academic success” (Wilson-Strydom, 2010).

A detailed description of what the AQ seeks to assess is found below.

Table 2: Particulars of the NBT AQL Test *(NBT,2011)*

<table>
<thead>
<tr>
<th>The NBT in academic literacy (AL) aims to assess learners’ ability to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Read carefully and make meaning from texts that are typical of the kinds that they will encounter in their studies;</td>
</tr>
<tr>
<td>• Understand vocabulary, including vocabulary related to academic study, in their contexts;</td>
</tr>
<tr>
<td>• Understand and evaluate the evidence that is used to support claims made by writers of texts;</td>
</tr>
<tr>
<td>• Extrapolate and draw inferences and conclusions from what is stated or given in text;</td>
</tr>
<tr>
<td>• Identify main from supporting ideas in the overall and specific organisation of a text;</td>
</tr>
<tr>
<td>• Identify and understand the different types and purposes of communication in texts;</td>
</tr>
<tr>
<td>• Be aware of and identify text differences that relate to writers’ different purposes, audiences, and kinds of communication;</td>
</tr>
<tr>
<td>• Understand and interpret information that is presented visually (e.g. in graphs)</td>
</tr>
<tr>
<td>• Understand basic numerical concepts and information used in text</td>
</tr>
</tbody>
</table>
3.5.2.3 Reading Level Distribution

The reading level test (also referred to as the English language Proficiency test) is a diagnostic type test used on the Academic Literacy courses to assess the reading proficiency of students. Various questions need to be completed such as, twenty-seven multiple choice questions divided into three sections: a text comprehension section of thirteen questions; a cloze section of seven questions; and a sentence-cloze section of seven questions. (Drennan, 2011: 75-78). The reading level test does not specifically focus on the Basic Interpersonal Communication Skills (BICS). It has been adapted for the academic literacy courses at the University of the Free State to test the Cognitive Academic Language Proficiency (CALP).

After students wrote the test at the start of the academic year, they were placed on a reading level (See Table three below). The scoring levels are based on the International English Language Testing System (IELTS) grading scale. Each level is scaled according to headword count.

Table 3: Reading Level Grading Scale

<table>
<thead>
<tr>
<th>Reading Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Level 1</td>
<td>Beginner</td>
</tr>
<tr>
<td>Reading Level 2</td>
<td>Elementary</td>
</tr>
<tr>
<td>Reading Level 3</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Reading Level 4</td>
<td>Upper Intermediate</td>
</tr>
<tr>
<td>Reading Level 5</td>
<td>Advanced</td>
</tr>
</tbody>
</table>

The IELTS “is a test that measures the language proficiency of people who want to study or work in environments where English is used as a language of communication. This high quality and secure test helps organisations identify people with the appropriate level of English language proficiency.”

3.5.2.4 Gender Distribution

Students were asked to indicate their gender as either male or female. The gender distribution was not identical as 45.1% were male students and 54.8% were female students. As the groups were non-randomized, the researcher could not control for gender distribution in each group.
According to Larson-Freeman and Long (1991: 2104) “It is generally accepted that in L1 acquisition females enjoy a rate advantage initially. Farhady (1982) found that female subjects significantly outperformed make subjects on a listening comprehension test in his study of eight hundred university students who were obliged to take a placement test.” Therefore, there exists the possibility that the success of each group could be proportionate to the number of females in each group.

3.5.3 What are Students’ Perceptions of DVD Subtitles?

In order to answer this question, a qualitative questionnaire to investigate learner opinions, attitudes, and beliefs about watching content-related videos with or without subtitles, was used (McKay, 2006). Understanding the experiences, perceptions, attitudes, and feelings of students towards the use of DVD subtitles would bring more insight into the research study. The data from the qualitative questionnaire was collected before the intervention took place by means of a paper-based questionnaire. There were thirteen multiple choice questions and one question where students could write extra comments if they felt the need.

In the questionnaire, students had to answer thirteen multiple choice questions based on a Likert Scale which is a five-category scale ranging from “strongly agree” to “strongly disagree” and there was one question at the end where students could write extra comments (Peterson, 2000:75). This questionnaire was created by the researcher to understand students’ experiences and feelings about the use of DVD subtitles in a film of TV programme (See Appendix four). Brown (2001:6) defines questionnaires as “any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting them from among existing answers”. This is an effective method of collecting data on the attitudes, beliefs or opinions of a large group of students. Thus, it is an appropriate way of determining the reactions of students when watching content-related videos with or without intralingual subtitles (Mackey and Grass, 2005: 92-93).

3.5.4 What are Students’ Levels of Vocabulary Knowledge?

In order to answer this question, two tests were used to establish students’ vocabulary knowledge prior to the intervention. The first test, a Vocabulary Levels Test (VLT), was used to measure the general vocabulary knowledge of the participants in the study. The second test,
a Vocabulary Knowledge Scale Test (VKS), was used to measure students’ knowledge of the target and non-target words used in this study.

3.5.4.1 The Vocabulary Levels Test (VLT)

In measuring students’ vocabulary knowledge, the researcher could gauge students’ language proficiency and correlate the information with students’ reading levels. Therefore, this test was merely used for diagnostic purposes. Like the qualitative questionnaire, students had to complete the VLT test before the intervention.

This test was developed by Norbit Schmitt (2001) in order to determine students’ vocabulary level knowledge (Schmitt, 2010:19). It focused on vocabulary at four frequency levels reflected in the four sections of the test. Section A focuses on the two thousand most frequent word families, Section B focuses on the three thousand most frequent word families, Section C focuses on the five thousand most frequent word families and Section D focuses on the ten thousand most frequent word families. Based on research by Schonell, Meddleton, and Shaw (1965), it was accepted that

Around two thousand word families were sufficient to engage in daily conversations; three thousand families were thought to enable initial access to authentic reading, and five thousand families, independent reading of that material. In addition to this, five thousand families represented the upper limit of general high-frequency vocabulary while 10,000 families signified a round figure for a wide vocabulary which would enable advanced usage in most cases.

The VLT test used a form-recognition matching format, comprising of a stem, (the definition) and the options (the target words). Below is an example taken from Schmitt (2010: 197).

1. concrete
2. era  _________ circular shape
3. fiber  _________ top of a mountain
4. hip  _________ a long period of time
5. loop
6. summit
Each level has ten clusters (i.e. thirty items). According to Schmitt (2010:198) “[t]he test is designed to tap into the initial stages of form-meaning linkage. Therefore, the option words in each cluster are chosen so that they have different meanings”. Please refer to Appendix three for the full test.

3.5.4.2 The Vocabulary Knowledge Scale Test (VKS)

The VKS, created by Wesche and Paribakht and adapted by the researcher, was used to measure students’ knowledge of target and non-target words before and after the intervention took place. This test was used to show any gains in initial productive vocabulary knowledge that could have resulted from instructional interventions (Wesche and Paribakht, 1996).

The “VKS uses a five-point scale combining self-report and performance items to elicit self-perceived and demonstrated knowledge of specific words in written form. The scale ratings range from total unfamiliarity through recognitions of the word and some idea of its meaning, to the ability to use the word with grammatical and semantic accuracy in the sentence. Therefore, the VKS measures either receptive or productive knowledge” (Wesche and Paribakht, 1996:181). (See figure four below.) Although, as other research studies point out the VKS tends to have four of the stages weighted more towards receptive knowledge, and only one stage towards productive knowledge (Aloqaili, [sa]:42). It also provides a reasonable measure of the students’ level of vocabulary as various studies have shown in Wesche and Paribakht (1996).
Both groups were given the test to complete before and after the intervention. The data obtained from the VKS gave a good indication of the students’ vocabulary levels in terms of the scaling and measuring levels in the pre- and post-test to measure the effect of the intervention. In this research study, the VKS was only used to measure target words related to the study. As such, the results from the VKS are not used to determine the proficiency levels in terms of vocabulary knowledge, rather they were intended to “measure the assumed depth to which a particular word has been acquired” (Wesche and Paribakht, 1996:33). The aim was therefore to see whether the students could, with more ease, recognise the words they were exposed to in the intervention, and reach a better understanding of the word after having seen or heard it in the DVD excerpt.

From the DVD excerpt, fifteen target words and twelve non-target words (distracters) were selected for the VKS. These words were selected based on their frequency. Schmitt (2010:161) describes the importance of frequency as follows:
Frequency is the best indicator we have of how likely people are to know words, and in what order those words will be learned. Frequent words are for the most not inherently easier than non-frequent words, but on average, they will be encountered more often, which means they are more likely to be known than non-frequent words.

This principle therefore formed the basis of the word selection. The fifteen target words were thought not to be well known by students and the fifteen non-target words (distracters) were included to minimise the chances of students becoming aware of the target items (Schmitt 2010: 180). Please refer to Appendix five for the full test.

3.5.5 How Does Watching a DVD With or Without Intralingual Subtitles Improve Students’ Vocabulary Recognition?

This research question was addressed through two activities. The first activity was administered during the intervention in phase two, that is, the vocabulary recognition activity, and the second was administered after the intervention stage in phase three, that is, the recognition of synonyms activity.

3.5.5.1 The Vocabulary Recognition Activity

For the intervention or treatment process, students (in their two groups) watched the DVD extract. This section of the video contained the target and non-target words used in the tests in the study. Both groups went through the same process at the same time.

After watching the video, both groups of students were asked to complete the first vocabulary recognition activity. The vocabulary recognition activity, created by the researcher, was used in this study as a passive/receptive measurement task for both groups. Here, the students had to complete a worksheet after watching the video clip to see if they could recognise the vocabulary in the video. In this activity, they had to identify and circle the words they heard whilst watching the clip. The questionnaire included the fifteen target words and sixty-four control words unrelated to the video clip.

The skill involved in the vocabulary recognition activity required the control group to remember the words they had heard whilst watching the video clip and the treatment group to remember the words they heard and saw whilst watching the video clip. It is important to make
the distinction between the control and treatment group here as one group (the control group) did not receive the subtitles, and the other group (the treatment group) did. Please refer to Appendix six for the full activity.

3.5.5.2 The Recognition of Synonyms Activity

The second vocabulary recognition activity, the recognition of synonyms activity, was administered after the intervention. This multiple-choice synonyms activity, was comprised of twenty-three questions. Each of the question statements were the same as they appeared in the DVD excerpt. This activity was administered to test a post or delayed effect in receptive knowledge.

According to Hughes (2003:180), the ‘multiple choice’ testing technique is recommended for testing recognition ability. Here, there seems to be no harmful backwash effect, since guessing the meaning of vocabulary items is something one wants to encourage. One example would be a test to recognise synonyms. However, research has shown that vocabulary is best tested in context (Schmitt, 2010).

Here is an example from the DVD excerpt classified by Schmitt as a ‘multiple choice’ item:

*The conifers are sparse.* Sparse in this context means:

- a) Poor
- b) Thin
- c) Scarce
- d) Light

This type of test item is referred to as “words in context” items. Pike (1979:19 in Read 2000:141) argued that these test items have greater face validity because they present the words in sentences and they encourage test-takers to approach the answering of the items as being more like a reading task.

Owing to the fact that vocabulary learning is cumulative in nature, it was necessary for a delayed post-test to establish if long-term retention (i.e. learning) had taken place. According to Schmitt (2010:156) “[v]ocabulary learning is longitudinal and incremental”. Thus, it takes long-term exposure in different contexts to fully “acquire” a word. Therefore, it is necessary to retest vocabulary at various stages in order to confirm learning. As a result, this activity was
the last intervention of the research study aimed at testing long-term retention. Please refer to Appendix seven for the full activity.

3.5.6 How Does Watching a DVD With or Without Intralingual Subtitles Improve Students’ Vocabulary Recall?

This research question is directly linked to the research aim in that it tests vocabulary recall. After students completed the above vocabulary recognition activity for phase two, they were given a Select Deletion Cloze Exercise. This exercise required them to read and complete the transcribed passage based on the DVD excerpt containing thirty-four blank spaces where the target words taken from the video, had been omitted. Hughes (2003:187-189) explains that this exercise is a cloze procedure where a number of words in a passage are deleted, thus leaving blank spaces.

In this activity, students had to try and fill in the blanks based on their understanding of the video. This exercise was useful because it required participants to understand and process a lengthy passage in order to write the correct word in the blank space. “In predicting the missing word, candidates make use of their abilities that underlay all their language performance” (Read, 2010:164). Therefore, students had to have understood what they had watched in order to select the correct response.

More specifically, in this vocabulary recall activity, the students needed to “elicit the target word from their memory” (Read, 2000:155). Therefore, this activity was more challenging than a recognition type activity, as it presented students with more of a challenge (Cariana and Lee, 2001; Glover, 1989; and McDaniel and Mason, 1985).

For this study, it was important to use a content-related video. Throughout the EALN 1508 course thus far, students have only covered themes related to science and biology. Therefore, students acquire the vocabulary they will encounter in their respective disciplines. As a result, in the long run, students gain a better understanding of the content and vocabulary of a specific field of study. Stroller and Grabe (1997) support this view by mentioning the following reasons:

“[T]irstly, by sticking to a single theme in terms of subject matter, the vocabulary load becomes much less and more manageable; secondly, by remaining within the same content area, the repetition of the content-related vocabulary is higher;
thirdly, by limiting the subject matter to a particular field, the learners are able to develop knowledge of the subject area and can therefore with more ease and likelihood guess from the context” (Hinkel, 2011: 631-632).

For these reasons, this activity was designed to be more difficult than a recognition type activity (Cariana and Lee, 2001; Glover, 1989; and McDaniel and Mason, 1985). Please refer to Appendix eight for the full exercise.

3.6 Data Analysis
This section presents the data analysis of the demographic data and each research question. The data were analysed using the SAS software package (version 9.22, SAS procedures FREQ, MEANS and GLM), see SAS (2009).

3.6.1 Analysis of Demographic data
The frequencies and percentages of each gender and reading level category, respectively, were calculated by group (control and treatment). The two groups were compared with respect to gender composition using a chi-square test. A P-value associated with the null-hypothesis of no difference between groups is reported. Similarly, the two groups were compared with respect to reading level using a Mantel-Haenszel chi-square test (mean score test); a P-value associated with the null-hypothesis of no difference between groups is reported.

Furthermore, descriptive statistics (mean, STD, minimum, median, maximum) were calculated by group for the following quantitative variables: age, AP score, NBT (AL) and reading level score. The two groups (treatment versus control) were compared with respect to the quantitative variables using a one-way analysis of variance (ANOVA) fitting the factor group (treatment and control). Based on this ANOVA, the mean values for the two were calculated, as well as the difference in mean values between the two groups together with a 95% confidence interval (CI) for the difference. Furthermore, a P-value associated with the null-hypothesis of no difference between groups is reported.

From the data collected, two subjects in the control group (numbers eight and eleven) did not have data on reading level and reading level score; data from these two subjects are excluded from all analyses involving reading level. Various subjects have missing values in AP score and NBT (AL). See a detailed outline in the table below.
Table 4: Demographic Data

<table>
<thead>
<tr>
<th></th>
<th>Treatment</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (year)</td>
<td>18.8 (0.75)</td>
<td>19.40 (1.35)</td>
</tr>
<tr>
<td>AP Score</td>
<td>27.0 (3.16)</td>
<td>28.0 (3.17)</td>
</tr>
<tr>
<td>NBT AL</td>
<td>53.7 (9.73)</td>
<td>55.5 (9.54)</td>
</tr>
<tr>
<td>Reading level score</td>
<td>15.2 (4.14)</td>
<td>16.5 (3.85)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>24 (75.0)</td>
<td>10 (33.3)</td>
</tr>
<tr>
<td>Male</td>
<td>8 (25.0)</td>
<td>20 (66.7)</td>
</tr>
<tr>
<td>Home Language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afrikaans</td>
<td>1 (3.1)</td>
<td>30 (100)</td>
</tr>
<tr>
<td>English</td>
<td>1 (3.1)</td>
<td>0</td>
</tr>
<tr>
<td>Sepedi</td>
<td>1 (3.1)</td>
<td>0</td>
</tr>
<tr>
<td>Sotho</td>
<td>13 (40.6)</td>
<td>0</td>
</tr>
<tr>
<td>Tswana</td>
<td>6 (18.7)</td>
<td>0</td>
</tr>
<tr>
<td>Xhosa</td>
<td>4 (12.5)</td>
<td>0</td>
</tr>
<tr>
<td>Xitsonga</td>
<td>1 (3.1)</td>
<td>0</td>
</tr>
<tr>
<td>Zulu</td>
<td>5 (15.6)</td>
<td>0</td>
</tr>
</tbody>
</table>

AP: Admission point; NBT AL: National Benchmark Test – Academic Literacy
3.6.2 What are Students’ Perceptions of DVD Subtitles?

This study made use of one qualitative questionnaire in order to gather information about the thoughts, feelings, beliefs, and experiences of the students in this study. The questionnaire consisted of two sections, a survey section with thirteen multiple choice questions and one question where students could write extra comments if they felt the need.

According to Adams and Lawrence (2015:106), “[s]urvey research involves asking people to report on their own attitudes and behaviours. This self-report method allows the researcher insight into how individuals see themselves and obtain information on people’s thoughts and feelings”. The questionnaire used Likert scale type response categories (ranging from strongly agree to strongly disagree). The frequencies and percentages of the response categories were calculated for each question, by group (control and treatment). From the frequencies, a graph was constructed to show the responses of each group for each question. From the data collected, two subjects in the treatment group (numbers twenty-two and twenty-seven) did not complete this instrument and are excluded from the analysis of these data.

3.6.3 What are Students’ Levels of Vocabulary Knowledge?

3.6.3.1 The Vocabulary Level Test (VLT)

The vocabulary level test consists of four sections, A to D. For each section, a score out of thirty was reported. For each section score, and for the average of the four section scores, descriptive statistics (mean, STD, minimum, median, maximum) were calculated by group and reading level.

The four section scores, and the average of the four section scores of the two groups (treatment versus control) were compared using a two-way analysis of variance (ANOVA) fitting the factors group (treatment and control) and reading level (four categories: two, three, four or five). Based on this ANOVA, the mean scores for the two groups – adjusted for reading level – were calculated, as well as the difference in mean scores between the two groups together with a 95% confidence interval (CI) for the difference. Furthermore, a P-value associated with the null-hypothesis of no difference between groups is reported.

From the data collected, four subjects in the treatment group (numbers sixteen, nineteen, twenty-two and thirty) did not complete this instrument and are excluded from the analysis.
Two participants in the control group (numbers eighteen and eleven) did not have data on reading level; data from these two subjects are excluded from all analyses involving reading level.

3.6.3.2 The Vocabulary Knowledge Scale (VKS)

The VKS consists of twenty-seven words; the study participants indicated their knowledge of the words on a scale from one (don’t remember having seen it before) to five (I can use the word in a sentence). The frequencies and percentages of the response scores were calculated for each word, by group (control and treatment); similarly, frequencies and percentages of the response categories were calculated for each word, by reading level. Furthermore, for each word, descriptive statistics (mean, STD, minimum, median, maximum) of the response scores were calculated by group and reading level.

For each word, the response scores of the two groups (treatment versus control) were compared using a two-way analysis of variance (ANOVA) fitting the factors group (treatment and control) and reading level (four categories: two, three, four or five). Based on this ANOVA, the mean scores for the two groups – adjusted for reading level – were calculated, as well as the difference in mean scores between the two groups together with a 95% confidence interval (CI) for the difference. Furthermore, a P-value associated with the null-hypothesis of no difference between groups was reported.

From the data collected, four subjects in the treatment group (numbers sixteen, nineteen, twenty-two and thirty) did not complete this instrument and are excluded from the analysis. Two participants in the control group (numbers eighteen and eleven) did not have data on reading level; data from these two subjects are excluded from all analyses involving reading level.

3.6.4 How Does Watching a DVD With or Without Intralingual Subtitles Improve Students’ Vocabulary Recognition?

3.6.4.1 Vocabulary Recognition Activity

In the receptive vocabulary question sheet (Task one) participants had to circle all words they heard while watching the DVD. The sheet contained fifteen target words (t1 – t15) that should have been circled, and sixty-four control words that should not have been circled. The data
base indicated for each word, target and non-target, whether it was circled. From these data, the following variables were calculated for each participant:

- The number of correctly circled target words (correct target);
- The number of correctly not circled non-target words (correct non-target);
- The overall mark, calculated as the sum of the above two scores, minus the sum of the following two numbers: the number of not circled target words, and the number of circled non-target words.

The frequencies and percentages of circled words were calculated for each word, by group (control and treatment). Furthermore, descriptive statistics (mean, STD, minimum, median, maximum) were calculated by group and reading level for the above three variables.

The scores for correct target, correct control and overall mark of the two groups (treatment versus control) were compared using a two-way analysis of variance (ANOVA) fitting the factors group (treatment and control) and reading level (four categories: two, three, four or five). Based on this ANOVA, the mean scores for the two groups – adjusted for reading level – were calculated, as well as the difference in mean scores between the two groups together with a 95% confidence interval (CI) for the difference. Furthermore, a P-value associated with the null-hypothesis of no difference between groups was reported.

From the data collected, four subjects in the control group (numbers four, eleven, sixteen and twenty-seven) did not circle any words and thus did not complete this instrument; these subjects are excluded from the data analysis. One subject in the control group (number two) circled all words and thus apparently did not faithfully complete this instrument; this subject is excluded from the data analysis.

3.6.4.2 Recognition of Synonyms Activity

In the “recognize synonyms” activity, participants had to indicate synonyms for twenty-three words. A total mark was calculated as the sum of the correctly recognized synonyms.

The frequencies and percentages of correctly recognized synonyms were calculated for each word, by group (control and treatment) and by reading level. Furthermore, descriptive statistics
(mean, STD, minimum, median, maximum) were calculated by group and reading level for the total mark.

The total marks of the two groups (treatment versus control) were compared using a two-way analysis of variance (ANOVA) fitting the factors group (treatment and control) and reading level (four categories: two, three, four or five). Based on this ANOVA, the mean scores for the two groups – adjusted for reading level – were calculated, as well as the difference in mean scores between the two groups together with a 95% confidence interval (CI) for the difference. Furthermore, a P-value associated with the null-hypothesis of no difference between groups was reported.

From the data collected, three subjects in the control group (numbers eleven, sixteen and twenty-six) had a total mark of zero, thus did not complete this instrument; these subjects are excluded from the analysis of data.

The primary function of this activity was to test a post or delayed effect on the intervention for both groups. For this activity, students were presented with a sentence from the same context as the video clip, and they had to select the correct response amongst the options given.

There are various reasons why a multiple choice test was chosen for this activity. As this technique only tests recognition knowledge, it allows a participant to passively recognise the target item. This is known as the primitive stage of vocabulary learning. However, when a student identifies the correct response on the test, this does not automatically mean that they can produce the correct response when speaking or writing. Furthermore, guessing may have a considerable but unknowable effect on the test scores (Schmitt, 2010; Hughes, 2003).

3.6.5 How Does Watching a DVD With or Without Intralingual Subtitles Improve Students’ Vocabulary Recall?

After the vocabulary recognition activity, students were given a second task, the Select Deletion Cloze Exercise. They had to place each one of the thirty-four words into context. The data indicated, for each word, whether it was used correctly. A final score was calculated as the sum of correctly used words.

The frequencies and percentages of correctly used words were calculated for each word, by group (control and treatment) and by reading level. Furthermore, descriptive statistics (mean,
STD, minimum, median, maximum) were calculated by group and reading level for the final score.

The final scores of the two groups (treatment versus control) were compared using a two-way analysis of variance (ANOVA) fitting the factors group (treatment and control) and reading level (four categories: two, three, four or five). Based on this ANOVA, the mean scores for the two groups – adjusted for reading level – were calculated, as well as the difference in mean scores between the two groups together with a 95% confidence interval (CI) for the difference. Furthermore, a P-value associated with the null-hypothesis of no difference between groups was reported.

From the data collected, four subjects in the control group (numbers four, eleven, sixteen and twenty-seven) had a final score of zero and thus apparently did not complete this instrument; these subjects were excluded from the analysis of data.

3.7 Validity and Reliability

There are numerous factors with the ability to impact on the validity of a research project. According to de Vos, et al., (2005:160) “validity refers to the extent to which an empirical measure accurately reflects the concept it is intended to measure”. As this study predominantly made use of quantitative data analysis, the validity thereof will be discussed.

According to Creswell and Clark (2011:210) “quantitative validity means that the scores received from participants are meaningful indicators of the construct being measured”. In this study, there were various data collection instruments, such as statistical tests used to provide accuracy and consistency of the constructs measured.

In particular, the validity and reliability of the Vocabulary Levels Test (Schmitt, 2001) could be supported by existing research on the test. According to Schmitt, Schmitt, and Clapham (2001: 56-58) research conducted by Read (1988) proved the validity and reliability of the test establishing that subject scores on the various frequency levels fell into the lower and higher frequency bands. Further research done by Beglar and Hunt (1999:57) also confirmed that “[t]he scores on the Level test correlated with TOEFL scores, and items within sections were strongly related to one another”. This test is therefore widely used and accepted in vocabulary research for various purposes.
The validity of the study might have been compromised by the demographics and size of the sample. Therefore, the results of the study will not automatically apply to a larger population. Furthermore, other factors that could have had an effect on the validity of the study could be the pre-tests completed before the study. The pre-test might also be a limitation as it could have sensitized the students to the target and non-target words taken from the video clip.

As a result, the cause and effect inferences drawn from the tests could have been influenced by other variables beyond the researcher’s control. These are accounted for in section 5.3 as limitations of the study. But on the whole, the use of various data collection methods in the three phases of the study, contributed to addressing some of these limitations and to enhancing the validity of the study.

According to Creswell and Clark (2011:211) “quantitative reliability means that scores received from participants are consistent and stable over time”. In this study, the reliability was difficult to determine for four of the six tests (created by the researcher) as these had not been used or piloted before. Additionally, as the researcher did not administer the tests used in the study afterwards, their consistency could not be validated.

3.8 **Ethical Clearance**

The primary concern for this study was to obtain informed consent from the students and the institution, namely the University of the Free State. Each student signed a confidentiality form where they gave permission for their information to be used for this study. Learners were informed that they would stay anonymous throughout the research, and that their information would be used in strict privacy. Each student was briefed about the purpose of the research and provided with a brief description of the procedures and potential risks and benefits of the research. Along with this information, the researchers contact information was provided should any questions or concerns arise regarding the study or the subjects’ rights whilst testing. (Mackey and Grass, 2005:25-41). In addition, ethical clearance was sought from UNISA and permission was given by Prof Arlys van Wyk, the Head of the Unit for Language Development from the University of the Free State. The documents are attached as Appendices nine and ten.
3.9 **Conclusion**

This chapter outlined the research design and methodology used in this study. Each of the research questions in addition to their data collection methods were described. Thereafter, each of the data sets related to the research questions were analysed and the findings written up. The next chapter presents and discusses the results of the analysed data.
4 Chapter Four: Presentation and Analysis of Findings

4.1 Introduction

This chapter investigated and determined the effectiveness of using intralingual subtitles for vocabulary recall and recognition for comprehension. This contributes to an understanding of vocabulary acquisition as well as sheds light on the efficacy of incorporating content-related video clips into teaching methodology. This study is important because it adds to the growing body of literature relating to the benefits and effects of using subtitles to enhance vocabulary recognition and recall. This section will present and discuss the results of the study.

The main research question for this study is as follows: How effective is the use of DVD subtitles in enhancing student vocabulary in second-language contexts?

Based on the main research question, the sub-questions are as follows:

1. What are students’ perceptions of DVD subtitles?
2. What are students’ levels of vocabulary knowledge?
3. How does watching a DVD with or without intralingual subtitles improve students’ vocabulary recognition?
4. How does watching a DVD with or without intralingual subtitles improve students’ vocabulary recall?
5. How can DVD subtitles be used effectively to enhance student vocabulary in second-language learning contexts?
4.2 Presentation and Discussion of the Findings

The discussion on the findings is aligned to the research questions. However, only the first four sub-questions are discussed. The final sub-question is discussed in chapter five.

4.2.1 What are the Students’ Perceptions of DVD Subtitles?

The qualitative questionnaire given to students to understand their feelings and attitudes to watching a film, video or TV programme with subtitles can be found below. The questionnaire consisted of two sections, a survey section with thirteen multiple choice questions and one question where students could write extra comments if they felt the need.

Survey Research

The relevant questions will be presented along with a discussion of the responses for both groups.

![Graph 1: Which do you prefer watching?](image)

From the graph one above it is evident that the two groups vary in what they prefer watching. The control group found more enjoyment in a film or video and the treatment group found more enjoyment in a TV programme.
Graph 2: How often do you watch a film or TV programme with English subtitles?

The control and treatment groups indicated that they only sometimes watch a film or TV programme with English subtitles. In other words, they only occasionally watch a film or TV programme with English subtitles. This could imply that both groups were not dependent on subtitles to understand films or TV programmes. Furthermore, what is interesting is the twenty percent of the control group said they never watch a film or TV programme with English subtitles. This could be attributed to either high (advanced) language proficiency, or it could be that this group finds subtitles distracting or ineffective. The evidence in graph three below supplements this idea.

Graph 3: Do you enjoy watching a film or TV programme with English subtitles?
This finding shows that the majority of the control group did not enjoy subtitles on the screen. However, the treatment group strongly agreed that the presence of subtitles on the screen was beneficial. This is most probably because they found it more useful than the control group.

Graph 4: Do you think it helps you understand the film or TV programme better?

It is evident in graph four above that ninety percent of the students agreed that subtitles could aid understanding. Subtitles improve the overall comprehension of a film or TV programme. As subtitles make the auditory information visual, it is possible that the students understand the content of the film or TV programme better (Rokni and Ataee, 2014).

Graph 5: Do you think English subtitles can help you with listening comprehension?

The graph above shows that both groups considered subtitles to be useful for listening comprehension. Both groups as second-language learners may therefore struggle with this skill.

60
Listening may be easy for native speakers but it can become a “source of frustration for second and foreign language (L2) learners” (Graham, 2006). Listening is a very important skill in understanding and communicating in any language. It thus plays a crucial role in second-language acquisition. Clearly then, subtitles have the ability to make this task easier (Rokni and Ataee, 2014).

![Graph 6: Do you recognise more words when English subtitles are used in a film or TV programme?](image)

As seen in graph six, both the treatment and control group were of the opinion that the subtitles helped them to notice new words in the film or TV programme. Therefore, this has a spill over effect as it can facilitate vocabulary acquisition without distracting from the content (Rokni and Ataee, 2014).
Graph 7: Do English subtitles distract you?

In this graph, the control group was mostly divided in opinion. A reason for this may be that they might have believed that subtitles were distracting because they hindered their listening abilities, whilst covering visual information. However, the treatment group indicated that subtitles did not distract them from the video. In this case, subtitles may help students to become conscious of language they might otherwise not have understood. Thus, language proficiency is developed (Borras and Lafayette, 1994). Another interesting study on eye-movement also concluded that reading subtitles did not distract the learners from hearing English words. Research by d’Ydwaalte, Praet, Verfaillie, and van Rensbrgen (1991) advocates that learners were able to adjust easily between the visual image and subtitle. This further validates the argument that subtitles in audio-visual material aid language learning.
Graph 8: Do you feel that English subtitles can help improve your reading skills?

Here, in graph eight, both groups felt strongly about subtitles aiding their reading efficiency (as seen above). Caimi (2006) argues that students who are able to read well have better chances in improving their overall understanding of the story in addition to better vocabulary retention. When students listen and read at the same time, they are able to “associate aural and written forms of the words more easily and facilitate the acquisition of correct pronunciation”. In this instance, students reported that they believed reading subtitles could help them improve their general reading skills.
4.2.1.1 Comments Section

As a part of the qualitative data, students were asked to add any comments in the form of information they would like the researcher to know. Table two below provides some of the most recurring verbatim responses.

*Table 5: Student Verbatim Responses*

<table>
<thead>
<tr>
<th>Student</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student 1</td>
<td>“Subtitles can be helpful if you don’t understand the language completely.”</td>
</tr>
<tr>
<td>Student 2</td>
<td>“Subtitles distract me most of the time. The only time I will need it if the people are talking in other languages.”</td>
</tr>
<tr>
<td>Student 3</td>
<td>“Subtitles should only be shown when in a film another language is spoken.”</td>
</tr>
<tr>
<td>Student 4</td>
<td>“English subtitles helps a lot especially when the sound is not clear enough. I think it is a good listening and reading skill to teach, even younger kids how to read and the tempo thereof.”</td>
</tr>
<tr>
<td>Student 5</td>
<td>“English subtitles help you understand the story better”</td>
</tr>
<tr>
<td>Student 6</td>
<td>“When you hear a knew or strange word you can read the subtitle to see its spelling.”</td>
</tr>
<tr>
<td>Student 7</td>
<td>“If it is a film for enjoyment then I don’t want to have subtitles. If it is about work I feel we can get more information in subtitles.”</td>
</tr>
<tr>
<td>Student 8</td>
<td>“Subtitles is a bit distracting when I watch a film, but I think it helps with spelling and comprehensions.”</td>
</tr>
<tr>
<td>Student 9</td>
<td>“When I watch TV, I prefer watching something with subtitles. It helps me improve my reading and understanding of what I am watching.”</td>
</tr>
</tbody>
</table>

From the student comments in the table above, it is evident that some students feel that subtitles could help them. On the other hand, other students seem to feel that subtitles are distracting and should not be included. Therefore, subtitling is may be more advantageous for learners who are not proficient in the target language and need more help.

In summary, data were analysed to understand the thoughts, feelings, beliefs, and experiences of students in this study. The questionnaire consisted of two sections, a survey section and an open-ended comment section. The results of the qualitative questionnaire are closely linked to the overall results of the control and treatment groups’ performance in this study.

Based on the results of the questionnaire, it is evident that subtitles are not commonly used to aid comprehension in this ESL context. Although, students feel that it could definitely help
with a variety of second-language needs, such as listening and reading, they do not willingly make use of such a function. The presence of subtitles can be distracting, and this very feature limits the use thereof. However, if one considers the comments of the treatment group in more depth, it is evident that this group felt that they could gain from the presence of subtitles more than the control group. This could be because of the learner differences in each group, perhaps more strongly the L1 language background.

4.2.2 What are Students’ Levels of Vocabulary Knowledge?

4.2.2.1 The Vocabulary Level Test (VLT)

From the graph nine below it is apparent that the two groups were relatively similar in terms of vocabulary knowledge. The treatment group had higher mean scores at the two thousand and three thousand word levels. The control group had higher mean scores at the five thousand and ten thousand word levels. Therefore, the control group could identify and connect more correct words on the ten thousand word level than the treatment group. Therefore, this test was useful in supplying a profile of each groups’ vocabulary knowledge for diagnostic purposes.

*Graph 9: Vocabulary Level Test: Mean Scores*
4.2.2.2 Vocabulary Knowledge Scale Test (VKS)

The Vocabulary Knowledge Scale Test was administered both before and after the intervention. Hence, in order to understand the findings, each set of data will be discussed.

In the pre-test measure of the VKS (Table six) it is evident the target words scored lower mean averages than the non-target words for both groups. Therefore, the target words were less well known than the non-target words. The non-target words had high-frequency levels as compared to the target words which had low-frequency levels. The control group had higher mean scores for the pre-test measure than the treatment group. This is attributable to various factors, such as literacy background, L1 language background, gender, age, and first-generation status.

In the post-test measure of the VKS (Table seven) the purpose was to track any changes in students’ initial knowledge in order to measure the possible effect of the treatment. The results of the post-test suggest that there were gains in both groups.

In considering the pre-test and the post-test mean scores, it is possible to make certain observations for both groups. The data collected showed that the treatment group had higher mean scores on the post-test when compared to the pre-test. Furthermore, from Table six and seven below, the target words had more gains than the non-target words. The treatment group showed fourteen gains from the fifteen target words, and from the twelve non-target words, only three showed gains. In addition, the treatment group regressed more on the non-target words than the target words, as opposed to showing no improvement.

Furthermore, findings from on the post-test mean scores show that the control group had regressed. As with the treatment group, this group also showed signs of more gains on the target words than on the non-target words. In this case, from the fifteen target words, eight showed gains, and from the twelve non-target words, only four showed gains. The control group also regressed more on the non-target words than the target words. Overall, the control group had higher mean scores for both the pre- and post-test VKS measurement.
### Table 6: Pre-vocabulary Knowledge Scale: Mean Scores per Word

<table>
<thead>
<tr>
<th>Target/ Non-target Word</th>
<th>Word</th>
<th>Group</th>
<th></th>
<th></th>
<th>P – Valuea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>Dwarfing</td>
<td>Treatment</td>
<td>2.01</td>
<td>1.90</td>
<td>0.6317</td>
</tr>
<tr>
<td>Target</td>
<td>Coniferous</td>
<td>Treatment</td>
<td>1.41</td>
<td>1.34</td>
<td>0.6461</td>
</tr>
<tr>
<td>Target</td>
<td>Extensive</td>
<td>Treatment</td>
<td>2.3</td>
<td>2.31</td>
<td>0.9562</td>
</tr>
<tr>
<td>Target</td>
<td>Stun</td>
<td>Treatment</td>
<td>2.03</td>
<td>3.32</td>
<td>0.0001</td>
</tr>
<tr>
<td>Target</td>
<td>Sparse</td>
<td>Treatment</td>
<td>1.33</td>
<td>1.80</td>
<td>0.0196</td>
</tr>
<tr>
<td>Target</td>
<td>Dominate</td>
<td>Treatment</td>
<td>2.74</td>
<td>3.59</td>
<td>0.0009</td>
</tr>
<tr>
<td>Target</td>
<td>Stirs</td>
<td>Treatment</td>
<td>2.96</td>
<td>2.75</td>
<td>0.5936</td>
</tr>
<tr>
<td>Target</td>
<td>Essence</td>
<td>Treatment</td>
<td>2.46</td>
<td>2.70</td>
<td>0.4395</td>
</tr>
<tr>
<td>Target</td>
<td>Prise</td>
<td>Treatment</td>
<td>1.39</td>
<td>1.90</td>
<td>0.0054</td>
</tr>
<tr>
<td>Target</td>
<td>Magnificent</td>
<td>Treatment</td>
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<td>4.33</td>
<td>0.0141</td>
</tr>
<tr>
<td>Target</td>
<td>Barren</td>
<td>Treatment</td>
<td>2.59</td>
<td>2.45</td>
<td>0.7111</td>
</tr>
<tr>
<td>Target</td>
<td>Sheer</td>
<td>Treatment</td>
<td>2.07</td>
<td>2.16</td>
<td>0.7314</td>
</tr>
<tr>
<td>Target</td>
<td>Deciduous</td>
<td>Treatment</td>
<td>1.56</td>
<td>1.64</td>
<td>0.6892</td>
</tr>
<tr>
<td>Target</td>
<td>Scarce</td>
<td>Treatment</td>
<td>3.60</td>
<td>3.52</td>
<td>0.8124</td>
</tr>
<tr>
<td>Target</td>
<td>Glimpse</td>
<td>Treatment</td>
<td>2.73</td>
<td>3.57</td>
<td>0.0138</td>
</tr>
<tr>
<td>Non-target</td>
<td>Season</td>
<td>Control</td>
<td>4.33</td>
<td>4.35</td>
<td>0.9126</td>
</tr>
<tr>
<td>Non-target</td>
<td>Grow</td>
<td>Control</td>
<td>3.97</td>
<td>4.32</td>
<td>0.1180</td>
</tr>
<tr>
<td>Non-target</td>
<td>Circle</td>
<td>Control</td>
<td>4.41</td>
<td>4.62</td>
<td>0.3537</td>
</tr>
<tr>
<td>Non-target</td>
<td>Sign</td>
<td>Control</td>
<td>4.06</td>
<td>4.31</td>
<td>0.3529</td>
</tr>
<tr>
<td>Non-target</td>
<td>Wilderness</td>
<td>Control</td>
<td>2.81</td>
<td>4.17</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Non-target</td>
<td>Hunter</td>
<td>Control</td>
<td>3.89</td>
<td>4.25</td>
<td>0.2060</td>
</tr>
<tr>
<td>Non-target</td>
<td>Produce</td>
<td>Control</td>
<td>4.05</td>
<td>4.29</td>
<td>0.3453</td>
</tr>
<tr>
<td>Non-target</td>
<td>Gather</td>
<td>Control</td>
<td>4.11</td>
<td>4.11</td>
<td>0.9991</td>
</tr>
<tr>
<td>Non-target</td>
<td>Living</td>
<td>Control</td>
<td>3.29</td>
<td>4.01</td>
<td>0.0315</td>
</tr>
<tr>
<td>Non-target</td>
<td>Print</td>
<td>Control</td>
<td>3.92</td>
<td>4.28</td>
<td>0.1554</td>
</tr>
<tr>
<td>Non-target</td>
<td>Silent</td>
<td>Control</td>
<td>3.92</td>
<td>4.33</td>
<td>0.0730</td>
</tr>
<tr>
<td>Non-target</td>
<td>Planet</td>
<td>Control</td>
<td>4.31</td>
<td>4.65</td>
<td>0.1722</td>
</tr>
</tbody>
</table>

(aP-value from two-way ANOVA fitting group and reading level; when P<0.05 the between-group difference is considered statistically significant)
Table 7: Post-Vocabulary Knowledge Scale: Means Scores per Word

<table>
<thead>
<tr>
<th>Target/ Non-target Word</th>
<th>Word</th>
<th>Group</th>
<th>P – Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>Dwarfing</td>
<td>2.57</td>
<td>2.80</td>
</tr>
<tr>
<td>Target</td>
<td>Coniferous</td>
<td>2.86</td>
<td>2.13</td>
</tr>
<tr>
<td>Target</td>
<td>Extensive</td>
<td>2.74</td>
<td>2.46</td>
</tr>
<tr>
<td>Target</td>
<td>Stun</td>
<td>2.94</td>
<td>3.02</td>
</tr>
<tr>
<td>Target</td>
<td>Sparse</td>
<td>2.25</td>
<td>2.18</td>
</tr>
<tr>
<td>Target</td>
<td>Dominate</td>
<td>3.41</td>
<td>3.48</td>
</tr>
<tr>
<td>Target</td>
<td>Stirs</td>
<td>3.01</td>
<td>3.12</td>
</tr>
<tr>
<td>Target</td>
<td>Essence</td>
<td>3.05</td>
<td>2.76</td>
</tr>
<tr>
<td>Target</td>
<td>Prise</td>
<td>1.98</td>
<td>1.88</td>
</tr>
<tr>
<td>Target</td>
<td>Magnificent</td>
<td>3.90</td>
<td>4.02</td>
</tr>
<tr>
<td>Target</td>
<td>Barren</td>
<td>2.82</td>
<td>2.46</td>
</tr>
<tr>
<td>Target</td>
<td>Sheer</td>
<td>2.28</td>
<td>2.02</td>
</tr>
<tr>
<td>Target</td>
<td>Deciduous</td>
<td>2.17</td>
<td>1.89</td>
</tr>
<tr>
<td>Target</td>
<td>Scarce</td>
<td>3.46</td>
<td>3.40</td>
</tr>
<tr>
<td>Target</td>
<td>Glimpse</td>
<td>3.62</td>
<td>3.57</td>
</tr>
<tr>
<td>Non-target</td>
<td>Season</td>
<td>4.31</td>
<td>4.40</td>
</tr>
<tr>
<td>Non-target</td>
<td>Grow</td>
<td>3.92</td>
<td>4.24</td>
</tr>
<tr>
<td>Non-target</td>
<td>Circle</td>
<td>3.83</td>
<td>3.85</td>
</tr>
<tr>
<td>Non-target</td>
<td>Sign</td>
<td>3.84</td>
<td>3.87</td>
</tr>
<tr>
<td>Non-target</td>
<td>Wilderness</td>
<td>3.27</td>
<td>3.90</td>
</tr>
<tr>
<td>Non-target</td>
<td>Hunter</td>
<td>4.11</td>
<td>4.27</td>
</tr>
<tr>
<td>Non-target</td>
<td>Produce</td>
<td>4.07</td>
<td>3.98</td>
</tr>
<tr>
<td>Non-target</td>
<td>Gather</td>
<td>3.93</td>
<td>3.83</td>
</tr>
<tr>
<td>Non-target</td>
<td>Living</td>
<td>3.95</td>
<td>4.21</td>
</tr>
<tr>
<td>Non-target</td>
<td>Print</td>
<td>3.86</td>
<td>3.99</td>
</tr>
<tr>
<td>Non-target</td>
<td>Silent</td>
<td>3.69</td>
<td>4.27</td>
</tr>
<tr>
<td>Non-target</td>
<td>Planet</td>
<td>4.06</td>
<td>4.55</td>
</tr>
</tbody>
</table>

(*P-value from two-way ANCOVA fitting group and Pre-VKS score as covariate; when P<0.05 the between-group difference is considered statistically significant)
In order to examine the use of the Vocabulary Knowledge Scale objectively for this study, it is necessary to consider various explanations for the results. The mean post-test scores indicate that the treatment group performed better than the control group, and that the control group regressed (see Table eight below). It is assumed that post-tests are generally used to measure the effect of a treatment. However, even though there are post-test differences, the differences may be attributable to the differences between groups, such as age, mother tongue, gender and learner motivation and attitude, not necessarily to the intervention (Dimitrov and Rumrill, 2003). This will be discussed in more detail in the discussion section.

Table 8: Pre- and Post-Test Vocabulary Knowledge Scale: Mean Scores

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>P - Value^a</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Treatment</td>
<td>Control</td>
</tr>
<tr>
<td>Pre-VKS: Mean Score</td>
<td>3.03</td>
<td>3.37</td>
</tr>
<tr>
<td>Post-VKS: Mean Score</td>
<td>3.40</td>
<td>3.29</td>
</tr>
</tbody>
</table>

(P-value from two-way ANOVA fitting group and reading level; when P<0.05 the between-group difference is considered statistically significant)

4.2.3 How Does Watching A DVD With or Without Intralingual Subtitles Improve Students’ Vocabulary Recognition?

The findings as to whether a DVD with or without subtitles could improve vocabulary recognition was investigated. Vocabulary recognition is defined as receptive knowledge that is more dependent on memory. For example, the student or subject is presented with a prompt or cue and it is their task to identify the correct or most appropriate option. Therefore, recognition type tests are somewhat easier than recall type activities. As a result, receptive knowledge means “responsive to a stimulus” (Read, 2000: 155). The activities for consideration in this regard is the Vocabulary Recognition Activity and the Recognition Synonyms Activity.
4.2.3.1 Vocabulary Recognition Activity

In this activity, students were asked to watch and listen to the DVD clip. Thereafter, both groups were asked to identify and circle the words they heard. The target words were the words taken from the DVD clip and the non-target words were words not appearing in the DVD clip at all. Therefore, the non-target words were unrelated to the DVD clip as they were not mentioned by the narrator.

There was not a statistically significant difference in the correctly circled target words for both groups. However, the treatment and control groups, respectively, identified an average of 51.29 and 43.75 non-target words correctly (see Table nine below). The difference between the treatment and control groups regarding the non-target words was statistically significant (P=0.0097).

<table>
<thead>
<tr>
<th></th>
<th>Treatment</th>
<th>Control</th>
<th>P –Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct target words</td>
<td>5.98</td>
<td>5.42</td>
<td>0.4965</td>
</tr>
<tr>
<td>Correct non-target words</td>
<td>51.29</td>
<td>43.75</td>
<td>0.0097</td>
</tr>
<tr>
<td>Mark</td>
<td>35.54</td>
<td>19.34</td>
<td>0.0021</td>
</tr>
</tbody>
</table>

*P-value from two-way ANOVA fitting group and reading level; when P<0.05 the between-group difference is considered statistically significant

The treatment group circled less non-target words than the control group. In other words, the treatment group who watched the DVD with intralingual subtitles was more aware of the words in the DVD clip. They could, therefore, correctly identify more non-target words than the control group who watched the DVD clip without intralingual subtitles. The control group circled more non-target words. This group had difficulty distinguishing between words that appeared in the DVD clip and words that did not. As a result, the treatment group performed better than the control group in this activity.

In summary, this recognition activity, in which students had to respond to a stimulus, required them to make use of their receptive knowledge. The treatment group were presented with visual stimulus (imagery and text) and auditory stimulus (voice), and the control group with visual
stimulus (only image) and auditory stimulus (voice). In this recognition-memory task, the treatment group could with greater accuracy differentiate between words they saw and words they had not seen, as opposed to the control group. There is thus value in presenting students with multiple sensory channels for vocabulary recognition tasks. However, whether the words were consolidated from short-term memory to long term memory cannot be determined by a single study (Read, 2000: 155-156; Sternberg and Sternberg, 2012: 187-189).

4.2.3.2 Recognition Synonyms Activity

For this exercise, the students had to indicate synonyms for each of the twenty-three words. The target and non-target words were the words taken from the DVD clip. A final score was calculated as the sum of correctly recognized synonyms. There was not a statistically significant difference between the two groups. The treatment and control groups, respectively, had an average of 11.41 and 11.48 correctly recognized synonyms in Table ten below.

Table 10: Recognition Synonyms Activity: Mean Scores

<table>
<thead>
<tr>
<th>Group</th>
<th>Final Score</th>
<th>P - Value&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>11.41</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>11.48</td>
<td>0.9245</td>
</tr>
</tbody>
</table>

<sup>a</sup>P-value from two-way ANOVA fitting group and reading level; when P<0.05 the between-group difference is considered statistically significant

Using a DVD with intralingual subtitles can influence vocabulary recognition development more than using a DVD without intralingual subtitles. The simultaneous use of text, sound, and moving images creates greater sensory input than only sound and moving images. Word recognition is aided when information is presented visually as opposed to aurally. In the vocabulary recognition task, the treatment group could, with greater accuracy, differentiate between words that had been seen and words that had not been seen as opposed to the control group. However, there was no significant difference between the two groups with the post recognition synonyms activity. This suggests that the initial gain could be short-term and that this was as a result of short-term memory. Nevertheless, it stands to reason that “words
associated with actual objects or imagery techniques, are learned more easily than those without” (Chun and Plass, 1996:183).

4.2.4 How Does Watching a DVD With or Without Intra lingual Subtitles Improve Students’ Vocabulary Recall?

In the first research question, the issue of whether a DVD with or without subtitles could improve vocabulary recall was investigated. Vocabulary recall is defined in terms of expressive or productive type knowledge, such as writing and speaking. Therefore, recall type activities are more difficult than recognition type activities. Recall type tests require more from a learner than a recognition type test would because the learner has to “search for the correct response within their mental representation of the newly experienced information” (Cariana and Lee, 2001; Glover, 1989; McDaniel and Mason, 1985). As a result, recall type activities lie more closely on the continuum towards acquisition than recognition type activities. It was therefore important to include such activities in this study for that purpose. The activity for consideration in this regard is the Select Deletion Cloze Exercise.

4.2.4.1 The Select Deletion Cloze Exercise.

For this exercise, students had to place each one of thirty-four words into context. The analysed data indicated, for each word, whether the students answered correctly or incorrectly. A final score was calculated as the sum of correctly used words. This test showed a significant difference in performance between the two groups. For various reasons, the control group performed better than the treatment group. (See Table eleven below).

\[
\text{Table 11: Select Deletion Cloze Exercise: Mean Scores}
\]

<table>
<thead>
<tr>
<th></th>
<th>Treatment</th>
<th>Group Control</th>
<th>P - Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Score</td>
<td>15.67</td>
<td>18.94</td>
<td>0.0383</td>
</tr>
</tbody>
</table>

*P-value from two-way ANOVA fitting group and reading level; when P<0.05 the between-group difference is considered statistically significant

There is much debate regarding the reliability and validity of cloze testing. The variance in results is primarily as a result of different testing situations. Unfortunately, the cloze test is
therefore “not necessarily and automatically a sound overall ESL proficiency measure” Brown (1993:94).

In this particular cloze exercise, the researcher did not adhere to the regular pattern in cloze tests which requires deleting every fifth word. Rather the researcher deliberately deleted the target words in order to test the student’s ability to supply the deleted words. The students thus relied on context clues to demonstrate comprehension. It can be implied from the results that the control group was better at using context clues to guess the deleted words than the treatment group (McGee, 1981; Taylor, 1953).

However, in addition to context clues, the control group may have also used lexical marker sand transfer features more optimally or to a greater extent than the treatment group, to correctly supply the deleted word. “Lexical markers are syntactic and semantic components of words which express implicit relationships a word may have within a sentence” (McGee, 1981:146). These include words such as conjunctions and adverbs that express logical relationships within a sentence. Therefore, some cloze test deletions may be easier than others if they have a greater number of transfer features, allowing students to infer the deleted words more easily.

Another reason why the control group performed better than the treatment group could be that the control group were perhaps slightly better readers. Research from cloze testing reports that “poor readers read and process in a word-by-word manner” (McGee, 1981:147). As a result, it can be supposed that poor readers are less likely to infer approaching context since sentence level processing takes longer.

Subsequently, it is implied that in order to read well and understand the text well, the reader has to have enough background knowledge on the topic in order to compensate for the missing information. Readers who perform better in cloze deletion exercises are likely to be more familiar with the organisational structures found in texts. Thus, they can infer information about the topic not directly stated. Possibly, poor readers may not be experienced in reading for detailed information.
For this reason, the variance in these test results as a consequence the different literacy backgrounds of the two groups. It is therefore assumed that the control group were better readers than the treatment group for a variety of reasons mentioned above. This discrepancy is further explored below.

In conclusion, using a DVD with intralingual subtitles does not influence vocabulary recall comprehension and development more than using a DVD without intralingual subtitles. In other words, despite not having intralingual subtitles when watching the DVD, the control group did better than the treatment group in the vocabulary recall activity. It is possible that this could be the as a result of the reliability and validity of the cloze testing technique used in this study. However, the most feasible reason for this is the variance in language proficiency between the two groups, in that the Afrikaans speaking group had a higher language proficiency than the Black group. This is a factor related to the aftermath of the apartheid era. As a result, language development and proficiency is influenced by cognitive and affective variables either aiding or detracting from the comprehensible input a learner receives.

4.3 Discussion

The findings show that DVD subtitles can be used effectively to enhance students’ vocabulary in ESL contexts, in particular, with students with lower language proficiency in the target language. The discussion on the findings from students’ experiences and perceptions, that is, the survey section and an open-ended comment section in the questionnaire, indicate that various variables, for instance, age, mother tongue, gender and learner motivation and attitude, might impact on intervention success.

However, there was a marked difference in the word recognition success rate in the group exposed to the subtitles as opposed to the group who were not exposed to subtitles displayed on the screen. As such, the treatment group could with greater accuracy differentiate between words that had been seen and words that had not been seen, as opposed to the control group. Although, various variables including age, mother-tongue, gender and learner motivation and attitude could have had an impact on the intervention, on the whole, the findings show that using a DVD with intralingual subtitles can influence vocabulary recognition development more than using a DVD without intralingual subtitles.
In contrast, students with higher language proficiency perform better on productive type language activities such as the cloze exercise used in this study. In order for the students to perform well on such an activity, they need to have acquired certain language constructs in order to understand the context of the reading task. Therefore, students with higher language proficiency were better readers, and could with more ease compensate for missing information.

4.4 Conclusion
This chapter presented and discussed the results of the study in line with each research question and the broader research aim. The findings show that using a DVD with intralingual subtitles can influence vocabulary recognition development more than using a DVD without intralingual subtitles. The next chapter explains the limitations of the study and recommends possibilities for future studies.
5 Chapter 5: Synthesis, Recommendations and Conclusions

5.1 Introduction

This research study investigated the effectiveness of DVDs in enhancing vocabulary development, particularly recall and recognition. This chapter presents a synthesis of the findings and their implications, as well as the limitations of the study and recommendations for further studies.

The main research question for this study is as follows:

How effective is the use of DVD subtitles in enhancing student vocabulary in second-language contexts?

Based on the main research question, the sub-questions are as follows:

1. What are students’ perceptions of DVD subtitles?
2. What are students’ levels of vocabulary knowledge?
3. How does watching a DVD with or without intralingual subtitles improve students’ vocabulary recognition?
4. How does watching a DVD with or without intralingual subtitles improve students’ vocabulary recall?
5. How can DVD subtitles be used effectively to enhance student vocabulary in second-language learning contexts?

5.2 Synthesis and implications of findings

This section provides a synthesis and the implications of the findings. In the discussion, each research question will be addressed.

5.2.1 What are the students’ perceptions of DVD subtitles?

The findings from the first research question show that students who felt that they needed subtitles more (the treatment group) were the ones who had lower language proficiency. Therefore, subtitles have the ability to lighten the language demand made on lower proficiency students, who have limited semantic and syntactic knowledge (Aloqaili, [sa]:20). These students depend heavily on the language instructor as their primary learning source. Thus, if
the learning instructor were to use DVD subtitles in the class as an additional resource or even to supplement teaching, then the additional input would be beneficial for the lower proficiency students.

In contrast to the above benefits, there are also potential constraints to using DVD subtitles. There is the possibility that students with a lower proficiency level could rely too much on the “visual textual support of subtitles, and ignore the listening” (Aloqaili, [sa]:32). However, the combination of visual and auditory information enhances the input the learner receives, thus facilitating comprehension and, therefore outweighing the common notion that subtitles could encourage laziness.

Additionally, when inquiring about the attitudes and feelings regarding the presence of subtitles, the students with higher proficiency reported that they found subtitles distracting. This finding is in line with that of Markham (1989) who suggests that subtitles best benefit learners who find the language demand and video content more difficult. Students with a higher language proficiency don’t depend so much on the subtitles for comprehension. Therefore, subtitles have the potential of being very beneficial if used in the right academic context. Subtitles may provide additional support for lower proficiency students as opposed to higher proficiency students.

5.2.2 What are the students’ levels of vocabulary knowledge?

From the findings of the second research question, it is clear that vocabulary is an important aspect of language learning and that without words, ideas cannot be conveyed appropriately. The findings confirm Aloqaili’s ([sa]:13) contention that vocabulary knowledge is vital for literacy skills such as reading comprehension. Additionally, other communicative tasks such as speaking and writing, because they are the building blocks of communication, also become demanding for language learners without sufficient vocabulary.

Therefore, low proficiency language learners need a lot of comprehensible input from various contexts, in order to facilitate incidental vocabulary acquisition. Multimedia is one way of providing such input. Aural input is enhanced when words on the screen are paired with images and visual cues. Thus, when subtitles are displayed simultaneously with video content, learners are able to read and listen to the video content.
However, knowing what a word means can entail many aspects of knowledge. Therefore, subtitles alone cannot substitute vocabulary teaching in a class. The teacher or facilitator needs to cover various aspects of vocabulary building. This includes morphological knowledge, word meaning, collocational and grammatical knowledge, connotative and associational knowledge, and the knowledge of social or other constraints to be observed in the use of a word (Laufer and Goldstein, 2004). Therefore, vocabulary building should include various teaching techniques and not solely rely on the use of media.

5.2.3 How does watching a DVD with or without intralingual subtitles improve students’ vocabulary recognition?

The findings from the third research question indicate that the simultaneous presentation of sound and text, can enhance vocabulary recognition. Therefore, the presence of subtitles can improve short term memory and word recognition as viewers ‘hear’ and ‘see’ the word. According to (Perego, Missier, Porta and Mosconi, 2010: 244) “[s]ubtitling has been used in instructional contexts as a tool to promote second-language learning, with proven advantage for lexical acquisition”. Consequently, using two modes of communication is thus more effective than using one as implied by the cognitive theory of multimedia learning.

However, vocabulary recognition activities can be classified as low level skills which do not require deep thinking from students. Thus one cannot assume that the target words being tested are ‘learned’. Vocabulary studies administering only ‘receptive multiple choice tests’, that is vocabulary recognition activities, tend to presuppose that if students recognise words correctly, then they have acquired the lexical items; however, this is not the case. These types of tests only measure the form-meaning link at a recognition level and can be classified as lower level skills or the primitive stage of vocabulary learning process as Schmitt (2010:153) contends.

5.2.4 How does watching a DVD with or without intralingual subtitles improve students’ vocabulary recall?

The findings from the fourth research question were not conclusive. Thus, it was not clear to what extent the use of DVD subtitles could improve students’ vocabulary recall. The inconclusive findings could be as a result of various reasons. One of these could be that recall type tests require more from a learner than recognition type tests. Unlike, vocabulary recognition, vocabulary recall as Cariana and Lee (2001), Glover (1989) and McDaniel and
Mason (1985) point out, requires higher order thinking where the learner has to apply the newly learned words in a different context.

5.2.5 How can DVD subtitles be used effectively to enhance student vocabulary in second-language learning contexts?

Currently, videos or films with intralingual subtitles are not being used to a great extent in the Academic Literacy Courses at the University of the Free State. There is also a scarcity of published research available on the use intralingual subtitles in second-language learning at other higher education institutions in South Africa. It is therefore difficult to relate this study to other findings with similar contexts.

There is also a lack of time available for incorporating additional teaching material and media into the lessons. As such, learning facilitators teaching these academic literacy courses need to manage the time they spend on covering the allocated work in the textbook, and teaching academic writing, such as paragraphs and essays. However, learning facilitators could ask students to view selected educational videos (with subtitles) based on the important issues covered in class as additional after-hours homework, thus serving as revision for the work covered in class. Consequently, when multimodal media (visual and auditory modes) are used as a teaching aid, the academic learning process can be enriched.

Another benefit from using subtitles in the language classroom could be enhanced listening comprehension for second-language learners. Therefore, when students are able to read what they hear, their reading ability, content comprehension, and depth of processing could possibly be improved. Therefore, when and if more technology is incorporated into the classroom, learning can be changed for the better (Ayonghe, 2009). For these reasons, there are potential benefits for students who make use of videos and films for academic language learning.

On the whole the findings show that when learning takes place in a relaxed and familiar environment, learners are better enabled to use all of their senses to involve themselves in the learning process. Therefore, providing the learner with more than one form of communication, such as sound and vision, provides a richer learning environment and can be intrinsically motivating for the learners. The reason for this is that they have more resources to access, thus possibly enhancing memory retention (King, 2002; Hulstijn and Laufer, 2001). From the
research collected, students reported that subtitles can aid comprehension of content, enhance listening and improve reading skills.

In addition, the findings endorse the views of Sherman (2003) and Camle 2006), that videos have the potential to enhance learning and comprehensible input because they can help to contextualise student learning. DVD subtitles provide comprehensible input (Krashen, 1985) by combining images and words to enhance input and in turn possibly the retention of vocabulary (Mayer, 2005). Hence, this study supports the cognitive theory of multimedia learning in that images and words promote deep level learning (Mayer, 2001).

5.3 Limitations of the study

Second-language acquisition is influenced by various aspects such as, racial/ethnic identification, socio-economic status, family resources, support structures, gender, ages, and motivation. All these variables impact on students’ L2 learning and their success at university. This study tried to explore the efficacy of using DVD intralingual subtitles for vocabulary recall and recognition. However, because of the following limitations, the findings are tentative.

Firstly, the intervention that was performed involved collecting data simultaneously and sequentially to best understand the research problem. As a result, the researcher had to select classes that had the same times in terms of availability. The classes were selected because the intervention needed to be performed at the same times every week over the duration of the data collection. Consequentially, the classes were small and heterogeneous. This presented further limitations which could not be overcome.

As the group of students selected for the research study was small, the findings could not be generalized. The results of the study are therefore limited to the context, and should be interpreted as such. However, because the sample was quite small, the research study took less time to complete. Based on this limitation, it is recommended that the researcher seeking to replicate this study selects a bigger research cohort. A bigger group of participants could also influence the reliability of the results favourably.

Furthermore, as a result of class availability, the two groups were not homogenous. Firstly, the students who participated in this study came from various L1 language backgrounds such as SeSotho, Sepedi, Venda, Xitsonga, Tswana, Xhosa, Afrikaans, English, and Zulu. They also
had varying levels of English language proficiency. Thus, the research participants’ mother
tongue could have influenced their second-language vocabulary acquisition rate and fluency.
The learners’ mother tongue (L1) affects all areas of language such as vocabulary and grammar
(Ellis, 1986). As a result of the interlanguage variance in English second-language acquisition,
this is one of the predominant limitations in this study.

As a result of the previous limitation, the racial and ethnic variance in the two groups were not
homogenous either. Therefore, each group was predominantly different from the other in terms
of their mother tongue and race. These limitations could not be because of logistical difficulties
involving availability on the campus where the research was undertaken.

Subsequently, the above limitation is correlated with the learner differences of the participants.
Such learner differences can include personality, motivation, learning style, aptitude, and age.
These factors affect the rate at which learners acquire a second language.

In this study, students with different learning styles were put under the same treatment. Some
were low-knowledge learners and others were high-knowledge learners. In other words, some
students came to the study with higher literacy levels and some with low literacy levels. Thus,
the treatment had different effects on different learners. For example, students who lack prior
knowledge tended to show stronger multimedia effects and contiguity effects than students
who possessed high levels of prior knowledge (Mayer and Gallini, 1991, Mayer, Steinhoff,
Bower and Mars, 1995). This was evident in the results of the study. In terms of the recall test,
the control group outperformed the treatment group, and with regards to the recognition tests,
the treatment group outperformed the control group. According to a cognitive theory of
multimedia learning, students with high prior knowledge may be able to generate their own
mental images while listening to an animation or reading a verbal text so having a contiguous
visual presentation is not needed. As with the previous limitations, these variables could not be
controlled because of participant availability for the study. It is therefore recommended that
future research controls for the selection of participants as far as possible.

One of the last limitations of this study was the lack of prior research on the topic. This
presented various difficulties with recreating similar research in terms of measures used to
collect data. Also, the lack of specific second-language vocabulary acquisition research
presented the researcher with various obstacles in terms of data collection methods and
literature. Because vocabulary research is very much still in its infancy, there are few long term studies available to measure acquisition. This particular area of research has proven to be quite tricky in terms of a standardized measurement. As a result, further research in the field with regards to the effect of multimedia on vocabulary learning would reaffirm the theory that multisensory channels aid vocabulary learning.

5.4 Recommendations for further studies

Areas for future research:

- Further investigation is required into the effective use of intralingual subtitles for vocabulary recognition. In addition, using a large sample size to conduct this research would be more effective statistically. Furthermore, care should be taken to use appropriate comparison groups for such research.
- More research into the effects of long-term exposure to subtitles for vocabulary learning is needed to identify benefits and implications.

5.5 Conclusion

To be able to read, write, speak and understand a second or foreign language, acquiring vocabulary becomes a vital component in achieving this goal. The aim of this study was to explore the extent to which intralingual subtitles could improve ESL students’ vocabulary recall and recognition for comprehension. Therein, the study aimed to investigate the difference in the use of showing a DVD with intralingual subtitles for vocabulary recall and recognition, as opposed to showing a DVD without intralingual subtitles for vocabulary recall and recognition to students enrolled in the Academic Literacy programme (AL) at the UFS.

There are various reasons why research in the use of multimedia for vocabulary development is important. Firstly, language acquisition and especially vocabulary development can be enhanced through the use of content-related films and videos with subtitles. In other words, the simultaneous use of text, image and sound can enhance comprehensible input for low-level proficiency second-language learners.

Furthermore, with the increasing presence of multimedia and technology, language learning can be enriched as authentic input is improved. When learners are presented with realistic input,
difficult concepts are brought to life, thus contextualising the learning process for the students (Aurastad, 2013:18; Sherman, 2003:1; Cami, 2006:100).

In addition, retention can be enhanced by the visual association of sound and text. When students see the written form of the spoken text, they link the sounds with words, thus facilitating recognition memory. In other words, the working memory has a visual and auditory component which works together, so learning can be more effective if both components are used at the same time.

This research study has shown that it is more effective to use DVD intralingual subtitles for vocabulary learning than without. More specifically, it is more beneficial for vocabulary recognition than vocabulary recall. Therefore, the use DVD intralingual subtitles has no proven significant effect on vocabulary recall. This statement is informed by the data collected in this study that shows that the treatment group responded more positively towards the vocabulary recognition tasks than the control group. As a result, there is thus value in presenting students with multiple sensory channels for vocabulary recognition tasks. Consequently, films and videos have far more reaching value than just entertainment. They can become excellent teaching tools as they help the learner to build a mental image of the content.

The results of this study are important because they can inform further research into diverse teaching practices. This presents a point of departure from traditional vocabulary teaching methods where word lists and rote memorization are used. Furthermore, using visual aids with authentic contexts can be far more motivational than simply telling students about where the words can be used. Furthermore, showing how the words are used in practice and creating exposure to context-rich experiences has a far reaching effect, and cultivates deep learning. Additionally, different learning styles can be accommodated in the class using visual material to facilitate learning. For this reason, multimedia proves to be an excellent learning and teaching tool to develop deep level learning.
6 REFERENCES


APPENDICES

7.1 Appendix 1: Consent Form

CONSENT FORM
University of South Africa

Project Title: The effect of using DVD subtitles in English Second-Language vocabulary recognition and recall development.

Principal Investigator Details:
Miranda Carstens
Centre for Teaching and Learning
Office 368
University of the Free State
Tel: 051 401 7354

Project Aims:
The aim of this study is to investigate the effectiveness of DVDs in enhancing vocabulary development. Particularly, the difference in the use of firstly audio-visual with intralingual subtitles and secondly audio-visual without intralingual subtitles. This study seeks to establish whether learners can learn new vocabulary better from watching DVD’s on the content material.

Participation Consent
1. I consent to participate in the project named above. I have been provided a copy of the project consent information statement to which this consent form relates and any questions I have asked have been answered to my satisfaction.

2. In relation to this project, please circle your response to the following:
   - I agree to be interviewed by the researcher
   - I agree to allow the interview to be recorded by electronic device
   - I agree to make myself available for further information if required
   - I agree to complete questionnaires and forms relating to the research project.

3. I acknowledge that:
   (a) my participation is voluntary and that I am free to withdraw from the project at any time without explanation;
   (b) the UNISA research project is for the purpose of research and not for profit;
   (c) any identifiable information about me which is gathered in the course of and as the result of my participating in this project will be (i) collected and retained for the purpose of this project and (ii) accessed and analysed by the researcher(s) for the purpose of conducting this project;
   (d) my anonymity is preserved and I will not be identified in publications or otherwise without my express written consent.

By signing this document I agree to participate in this research project.

Name of Participant: ……………………………………………………………………………………..

Signature and Date: ……………………………………………………………………………………..

If you have any concerns or complaints about the conduct of this project, you can contact:

Prof Mirriam Lephalala, PhD (Edinburgh)
Email: lephammk@unisa.ac.za
Tel: 012 429 6396
UNISA, P O Box 392, 0003
To begin with, the conifers are sparse, but soon they dominate the land. This is the Taiga forest. There are as many trees here as in all the world’s rainforests combined.
Appendix 3: Vocabulary Level Test

Please fill in the following personal information

Name and Surname: _______________________________________________________

Student number: _______________________________________________________

Home Language: _______________________________________________________

Age: __________________________

Gender: Male □ Female □

INSTRUCTION: Please answer ALL of the following sections. Write the correct number in the blank space for each segment.

For example:

1 business
2 clock     __6__ part of a house
3 horse     __3__ animal with four legs
4 pencil    __4__ something used for writing
5 shoe
6 wall
### Section A

<table>
<thead>
<tr>
<th>1 copy</th>
<th>2 event</th>
<th>end or highest point</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 motor</td>
<td>4 pity</td>
<td>this moves a car</td>
</tr>
<tr>
<td>5 profit</td>
<td>6 tip</td>
<td>thing made to be like another</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1 accident</th>
<th>2 debt</th>
<th>loud or deep sound</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 fortune</td>
<td>4 pride</td>
<td>something you must pay</td>
</tr>
<tr>
<td>5 roar</td>
<td>6 thread</td>
<td>having a high opinion of yourself</td>
</tr>
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</table>

<table>
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<th>2 disease</th>
<th>money for work</th>
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</thead>
<tbody>
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<td>3 justice</td>
<td>4 skirt</td>
<td>a piece of clothing</td>
</tr>
<tr>
<td>5 stage</td>
<td>6 wage</td>
<td>using the law in the right way</td>
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<table>
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<th>1 clerk</th>
<th>2 frame</th>
<th>a drink</th>
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<td>4 respect</td>
<td>office worker</td>
</tr>
<tr>
<td>5 theater</td>
<td>6 wine</td>
<td>unwanted sound</td>
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<th>chance</th>
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</thead>
<tbody>
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<td>3 gift</td>
<td>4 opportunity</td>
<td>twelve</td>
</tr>
<tr>
<td>5 relief</td>
<td>6 tax</td>
<td>money paid to the government</td>
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<table>
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<th>1 admire</th>
<th>2 complain</th>
<th>make wider or longer</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 fix</td>
<td>4 hire</td>
<td>bring in for the first time</td>
</tr>
<tr>
<td>5 introduce</td>
<td>6 stretch</td>
<td>have a high opinion of someone</td>
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<table>
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<th>grow</th>
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<tbody>
<tr>
<td>3 lean</td>
<td>4 owe</td>
<td>put in order</td>
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<tr>
<td>5 prefer</td>
<td>6 seize</td>
<td>like more than something else</td>
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<th>make</th>
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<td>4 manufacture</td>
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<td>5 melt</td>
<td>6 threaten</td>
<td>become like water</td>
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<thead>
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<th>1 ancient</th>
<th>2 curious</th>
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<td>4 entire</td>
<td>very old</td>
</tr>
<tr>
<td>5 holy</td>
<td>6 social</td>
<td>related to God</td>
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<td>3 lovely</td>
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<td>small</td>
</tr>
<tr>
<td>5 popular</td>
<td>6 slight</td>
<td>liked by many people</td>
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Section B

1. bull
2. champion
3. dignity
4. hell
5. museum
6. solution

1. blanket
2. contest
3. generation
4. merit
5. plot
6. vacation

1. comment
2. gown
3. import
4. nerve
5. pasture
6. tradition

1. administration
2. angel
3. frost
4. herd
5. fort
6. pond

1. atmosphere
2. counsel
3. factor
4. hen
5. lawn
6. muscle

1. abandon
2. dwell
3. oblige
4. pursue
5. quote
6. resolve

1. assemble
2. attach
3. peer
4. quit
5. scream
6. toss

1. drift
2. endure
3. grasp
4. knit
5. register
6. tumble

1. brilliant
2. distinct
3. magic
4. naked
5. slender
6. stable

1. aware
2. blank
3. desperate
4. normal
5. striking
6. supreme

1. formal and serious manner
2. winner of a sporting event
3. building where valuable objects are shown
4. holiday
5. wool covering used on beds
6. long formal dress

1. live in a place
2. follow in order to catch
3. leave something permanently
4. look closely
5. stop doing something
6. cry out loudly in fear

1. goods from a foreign country
2. part of the body which carries feeling
3. join wool threads together
4. hold firmly with your hands
5. suffer patiently
6. thin

1. group of animals
2. spirit who serves God
3. managing business and affairs
4. without clothes
5. steady
6. usual

1. a place covered with grass
2. female chicken
3. best or most important
4. knowing what is happening
5. striking
Section C

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<td>bring back to health</td>
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<td>small stones mixed with sand</td>
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<td>hide and wait for someone</td>
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<td>3</td>
<td>feel angry about something</td>
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<tr>
<td>4</td>
<td>prescribe</td>
<td>4</td>
<td>feel angry about something</td>
</tr>
<tr>
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<td>resent</td>
<td>5</td>
<td>feel angry about something</td>
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<table>
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<td>difficult to believe</td>
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<tr>
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<td>tragic</td>
<td>5</td>
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<td>6</td>
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### Section D

| 1 alabaster | 1 dissipate |
| 2 chandelier | 2 flaunt |
| 3 dogma | 3 impede |
| 4 keg | 4 loot |
| 5 rasp | 5 squirm |
| 6 tentacle | 6 vie |
| 1 benevolence | 1 contaminate |
| 2 convoy | 2 cringe |
| 3 lien | 3 immerse |
| 4 octave | 4 peek |
| 5 stint | 5 relay |
| 6 throttle | 6 scrawl |
| 1 bourgeois | 1 blurt |
| 2 brocade | 2 dabble |
| 3 consonant | 3 dent |
| 4 prelude | 4 pacify |
| 5 stupor | 5 strangle |
| 6 tier | 6 swagger |
| 1 alcove | 1 illicit |
| 2 impetus | 2 lewd |
| 3 maggot | 3 mammoth |
| 4 parole | 4 slick |
| 5 salve | 5 temporal |
| 6 vicar | 6 vindictive |
| 1 alkali | 1 indolent |
| 2 banter | 2 nocturnal |
| 3 coop | 3 obsolete |
| 4 mosaic | 4 torrid |
| 5 stealth | 5 translucent |
| 6 viscount | 6 wily |

### Reference:

### Appendix 4: Qualitative Questionnaire

Please fill in the following personal information

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<td>Student number:</td>
<td></td>
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<tr>
<td>Home Language:</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td>Gender:</td>
<td>Male [ ] Female [ ]</td>
</tr>
</tbody>
</table>

**INSTRUCTION:** Please answer **ALL** of the following questions.

**Circle only one response per question.**

1. **Which do you prefer watching?**
   a) A film or video with English subtitles
   b) A TV programme with English subtitles

2. **How often do you watch a film or TV programme with English subtitles?**
   a) Very often
   b) Often
   c) Sometimes
   d) Never

3. **Do you enjoy watching a film or TV programme with English subtitles?**
   a) Strongly agree
   b) Agree
   c) Not sure
   d) Disagree
   e) Strongly disagree
4. Do you think it helps you understand the film or TV programme better?
   a) Strongly agree
   b) Agree
   c) Not sure
   d) Disagree
   e) Strongly disagree

5. Do you think that watching a film or TV programme with English subtitles can help you understand the content better?
   a) Strongly agree
   b) Agree
   c) Not sure
   d) Disagree
   e) Strongly disagree

6. Do you think English subtitles can help you with spelling or word recognition?
   a) Strongly agree
   b) Agree
   c) Not sure
   d) Disagree
   e) Strongly disagree

7. Do you think English subtitles can help you with listening comprehension?
   a) Strongly agree
   b) Agree
   c) Not sure
   d) Disagree
   e) Strongly disagree
8. Do English subtitles distract you?
   a) Strongly agree
   b) Agree
   c) Not sure
   d) Disagree
   e) Strongly disagree

9. Do you recognise more words when English subtitles are used in a film or TV programme?
   a) Strongly agree
   b) Agree
   c) Not sure
   d) Disagree
   e) Strongly disagree

10. Do you think English subtitles can help you learn the language?
    a) Strongly agree
    b) Agree
    c) Not sure
    d) Disagree
    e) Strongly disagree

11. Do you feel that English subtitles make watching a film or TV programme less challenging?
    a) Strongly agree
    b) Agree
    c) Not sure
    d) Disagree
    e) Strongly disagree
12. Do you feel that English subtitles can help improve your reading skills?
   a) Strongly agree
   b) Agree
   c) Not sure
   d) Disagree
   e) Strongly disagree

13. Do you find it difficult to concentrate for longer than an hour when watching a film or TV programme with English subtitles?
   a) Strongly agree
   b) Agree
   c) Not sure
   d) Disagree
   e) Strongly disagree

14. Any comments:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Appendix: 5: The Vocabulary Knowledge Scale Test

Please fill in the following personal information

Name and Surname: __________________________________________________________

Student number: __________________________________________________________

Home Language: __________________________________________________________

Age: ________________ _______________________________________________________

Gender:  Male ☐    Female ☐

Instruction:

Please indicate the sentence that best describes what you know about each word.

Check off the appropriate box to the left of the options and follow the instructions for each option.

Sample Answer

A. Uncharted

1. ☐ I don’t remember having seen this word before.

2. ☐ I have seen this word before, but I don’t know what it means.

3. ☐ I have seen this word before, and I think it means __________________________________________ (provide a synonym or explanation).

4. ☑ I know this word. It means

   It refers to an area or place that is unexplored.

   (provide a synonym or explanation).

5. ☑ I can use this word in a sentence.

   The sailors set out for sea to discover the uncharted territory.

   (Make a sentence in English. If you answer (5), also answer (4).

Grow

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means ________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means * ____________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. * ____________________________________________________________________________

(Make a sentence in English. Answer both marked with *)

Dwarfing

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means ________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means * ____________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. * ____________________________________________________________________________

(Make a sentence in English. Answer both marked with *)
Season

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means

_________________________________________________________________________

_________________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

_________________________________________________________________________

_________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

_________________________________________________________________________

_________________________________________________________________________

(Make a sentence in English. Answer both marked with *)

Coniferous

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means

_________________________________________________________________________

_________________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

_________________________________________________________________________

_________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

_________________________________________________________________________

_________________________________________________________________________

(Make a sentence in English. Answer both marked with *)
**Extensive**

- I don’t remember having seen this word before.
- I have seen this word before, but I don’t know what it means.
- I have seen this word before, and I think it means ________
  _________________________________________________________________

(provide a synonym or explanation).

- I know this word. It means *
  _________________________________________________________________

(provide a synonym or explanation).

- I can use this word in a sentence. *
  _________________________________________________________________

(Make a sentence in English. Answer both marked with *)

**Circle**

- I don’t remember having seen this word before.
- I have seen this word before, but I don’t know what it means.
- I have seen this word before, and I think it means
  _________________________________________________________________

(provide a synonym or explanation).

- I know this word. It means *
  _________________________________________________________________

(provide a synonym or explanation).

- I can use this word in a sentence. *
  _________________________________________________________________

(Make a sentence in English. Answer both marked with *)
Stun

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means __________________________________________________________.

(Provide a synonym or explanation).

☐ I know this word. It means ________________________________

______________________________________________________

(Provide a synonym or explanation).

☐ I can use this word in a sentence. *

________________________________________________________

________________________________________________________

(Make a sentence in English. Answer both marked with *)

Wilderness

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means __________________________________________________________

(Provide a synonym or explanation).

☐ I know this word. It means ________________________________

______________________________________________________

(Provide a synonym or explanation).

☐ I can use this word in a sentence. *

________________________________________________________

________________________________________________________

(Make a sentence in English. Answer both marked with *)
Sparse

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means ____________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

______________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

__________________________________________________________

(Make a sentence in English. Answer both marked with *)

Dominate

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means ____________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

______________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

__________________________________________________________

(Make a sentence in English. Answer both marked with *)
Sign

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means

___________________________________________________________________________

___________________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

___________________________________________________________________________

___________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________

___________________________________________________________________________

(Make a sentence in English. Answer both marked with *)

Stirs

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means

___________________________________________________________________________

___________________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

___________________________________________________________________________

___________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________

___________________________________________________________________________

(Make a sentence in English. Answer both marked with *)


Gather

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means

___________________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

___________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________

(Make a sentence in English. Answer both marked with *)

Essence

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means

___________________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

___________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________

(Make a sentence in English. Answer both marked with *)
Produce

☐ I don’t remember having seen this word before.
☐ I have seen this word before, but I don’t know what it means.
☐ I have seen this word before, and I think it means

___________________________________________________________________________
___________________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

___________________________________________________________________________
___________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________
___________________________________________________________________________

(Make a sentence in English. Answer both marked with *)

Prise

☐ I don’t remember having seen this word before.
☐ I have seen this word before, but I don’t know what it means.
☐ I have seen this word before, and I think it means

___________________________________________________________________________
___________________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

___________________________________________________________________________
___________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________
___________________________________________________________________________

(Make a sentence in English. Answer both marked with *)
**Hunter**

- I don’t remember having seen this word before.
- I have seen this word before, but I don’t know what it means.
- I have seen this word before, and I think it means

_______________________________________________________________
___________________________________________________________________________

(provide a synonym or explanation).
- I know this word. It means *

___________________________________________________________________________
___________________________________________________________________________

(provide a synonym or explanation).
- I can use this word in a sentence. *

___________________________________________________________________________
___________________________________________________________________________

(Make a sentence in English. Answer both marked with *)

**Magnificent**

- I don’t remember having seen this word before.
- I have seen this word before, but I don’t know what it means.
- I have seen this word before, and I think it means

_______________________________________________________________
___________________________________________________________________________

(provide a synonym or explanation).
- I know this word. It means *

___________________________________________________________________________
___________________________________________________________________________

(provide a synonym or explanation).
- I can use this word in a sentence. *

___________________________________________________________________________
___________________________________________________________________________

(Make a sentence in English. Answer both marked with *)
**Living**

- I don’t remember having seen this word before.
- I have seen this word before, but I don’t know what it means.
- I have seen this word before, and I think it means ________________________________

(provide a synonym or explanation).

- I know this word. It means *

______________________________

(provide a synonym or explanation).

- I can use this word in a sentence. *

______________________________

(Make a sentence in English. Answer both marked with *)

**Barren**

- I don’t remember having seen this word before.
- I have seen this word before, but I don’t know what it means.
- I have seen this word before, and I think it means ________________________________

(provide a synonym or explanation).

- I know this word. It means *

______________________________

(provide a synonym or explanation).

- I can use this word in a sentence. *

______________________________

(Make a sentence in English. Answer both marked with *)
Print

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means ____________________________

_______________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

___________________________________________________________________________

___________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________

___________________________________________________________________________

(Make a sentence in English. Answer both marked with *)

Sheer

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means ____________________________

_______________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

___________________________________________________________________________

___________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________

___________________________________________________________________________

(Make a sentence in English. Answer both marked with *)
Silent

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means ____________________________
___________________________________________________________________________
(provide a synonym or explanation).

☐ I know this word. It means *
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________
___________________________________________________________________________
(Make a sentence in English. Answer both marked with *)

Deciduous

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means ____________________________
___________________________________________________________________________
(provide a synonym or explanation).

☐ I know this word. It means *
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________
___________________________________________________________________________
(Make a sentence in English. Answer both marked with *)
Planet

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means

___________________________________________________________________________
___________________________________________________________________________
(provide a synonym or explanation).

☐ I know this word. It means *

___________________________________________________________________________
___________________________________________________________________________
(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________
___________________________________________________________________________
(Make a sentence in English. Answer both marked with *)

Scarce

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means

___________________________________________________________________________
(provide a synonym or explanation).

☐ I know this word. It means *

___________________________________________________________________________
(provide a synonym or explanation).

☐ I can use this word in a sentence. *

___________________________________________________________________________
(Make a sentence in English. Answer both marked with *)

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Glimpse

☐ I don’t remember having seen this word before.

☐ I have seen this word before, but I don’t know what it means.

☐ I have seen this word before, and I think it means

____________________________________
____________________________________

___________________________________________________________________________

(provide a synonym or explanation).

☐ I know this word. It means *

____________________________________
____________________________________

___________________________________________________________________________

(provide a synonym or explanation).

☐ I can use this word in a sentence. *

____________________________________

____________________________________

____________________________________

(Make a sentence in English. Answer both marked with *)
7.6 Appendix 6: Vocabulary Recognition Activity

Please fill in the following personal information

Name and Surname: ______________________________________________________________

Student number: ______________________________________________________________

Home Language: ______________________________________________________________

Age: _________________________________________________________________________

Gender:  Male ☐  Female ☐

Please select **ALL** the **words** that you heard whilst watching the film.

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<td>sniff</td>
<td>crawl</td>
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<td>overshadow</td>
<td>star</td>
<td>twirl</td>
<td>ultra</td>
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<td>brink</td>
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<td>thirst</td>
<td>scarce</td>
<td>biggest</td>
<td>pitch</td>
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Appendix 7: The Recognition of Synonyms Activity

Please fill in the following personal information

Name and Surname: _________________________________________________________

Student number: __________________________________________________________

Home Language:____________________________________________________________

Age:_______________________________________________________________________

Gender: Male ☐ Female ☐

Instruction: Answer ALL the questions that follow.

Instruction: Circle the best synonym for the word in bold.

1. The **barren** snows of the Arctic are miles from the North Pole.
   a) Unproductive
   b) Devoid
   c) Sterile
   d) Impotent

2. The conifers are **sparse**.
   a) Poor
   b) Thin
   c) Scarce
   d) Light

3. Trees are among the most **magnificent** of all **living** things.
   a) Beautiful; active
   b) Outstanding; breathing
   c) Intelligent; organic
   d) Amazing; existing
4. A forest *produces* a lot of oxygen.
   a) Fabricates
   b) Emits
   c) Harvest
   d) Generates

5. A bird’s beak can *prise* apart the scales of the cone.
   a) Yank
   b) Force
   c) push
   d) Stab

6. Birds *gather* their crop for the winter.
   a) Assemble
   b) Fold
   c) Collect
   d) Group

7. The *sheer* extent of the forest is incredible.
   a) Pure
   b) Steep
   c) Thin
   d) Sharp

8. The *hunter* looks for its prey.
   a) Killer
   b) Predator
   c) Searcher
   d) Seeker

9. It is the very *essence* of wild.
   a) Core
   b) Principle
   c) Spirit
   d) Extract

10. The atmosphere *extends* over the *entire* planet.
    a) Delays; total
    b) Covers; whole
    c) Spreads; complete
    d) Widens; absolute
11. The landscape **stuns** the imagination.
   a) Surprises
   b) Shocks
   c) Astounds
   d) Paralyses

12. The Taiga forest **circles** the globe.
   a) Surrounds
   b) Orbits
   c) Contains
   d) Rings

13. These trees **dwarf** all others.
   a) Crowd
   b) Exceed
   c) Dominate
   d) Belittle

14. It is a silent world where little **stirs**.
   a) Awakes
   b) Agitates
   c) Mixes
   d) Disturbs

15. Trees have to protect their **precious** leaves from the cold.
   a) Favourite
   b) Expensive
   c) Valuable
   d) Loved

16. Some animals are so difficult to **glimpse** that they are like spirits.
   a) Catch sight of
   b) Peek at
   c) Look at
   d) Glance at
17. The cat must **roam** hundreds of miles in search of prey.
   a) Wander
   b) Journey
   c) Stroll
   d) Drift

18. In this area, conifers **dominate** the land.
   a) Control
   b) Govern
   c) Preoccupy
   d) Populate

19. Birds are **fortunate** enough to fly away.
   a) Lucky
   b) Happy
   c) Privileged
   d) Prosperous

20. Creatures are **scarce** because few can eat conifer needles.
   a) Threatened
   b) Rare
   c) Unusual
   d) Unfamiliar

21. For some, few things are **edible**.
   a) Digestible
   b) Wholesome
   c) Savoury
   d) Succulent

22. The **deciduous** woodlands are the most extensive on Earth.
   a) Momentary
   b) Short
   c) Impermanent
   d) Unstable

23. There are occasional **signs** of life, stories written in the snow.
   a) Symptom
   b) Hint
   c) Signal
   d) Evidence
Appendix 8: Select Deletion Cloze Exercise

Please fill in the following personal information

Name and Surname: _________________________________________________________

Student number: __________________________________________________________________

Home Language: __________________________________________________________________

Age: ________________________________________________________________________

Gender:  Male ☐  Female ☐

Instruction:

Using the words below, fill in the missing gaps. Each word can only be used once.

barren  extensive  living  season

circles  extent  magnificent  sheer

coniferous  extent  precious  signs

deciduous  extract  prints  silent

dominate  fortunate  prise  sparse

dwarfing  gathered  produces  stirs

d edible  glimpse  resin  stuns

essence  grow  roam  wilderness

exception  hunter  scarce

Trees, surely among the most ________________of all ________________ things. Some of
the largest organisms on Earth, ____________all others, and these are the tallest of them
all. The ________________and ________________woodlands that grow in the seasonal parts
of our planet are the most ________________forests on Earth. Their ____________extent
________________the imagination.

The ____________snows of the Arctic. A thousand miles from the North Pole and
heading south. This is the very first place that trees can _________________. To begin with, the
conifers are ________________ but soon they ________________the land. This is the Taiga
forest. There are as many trees here as in all the world’s rainforests combined. The Taiga

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the globe and contains a third of all the trees on Earth. It so much oxygen that it refreshes the atmosphere of the entire planet. At the Taiga’s northern the growing can last for just one month a year. It can take 50 years for a tree to get bigger than a seedling.

It is a world where little . But there are occasional of life, stories written in the snow. The of an Arctic fox and the hare it might have been stalking. A female polar bear and her two cubs. Some animals are so difficult to that they’re like spirits. One could live a lifetime in these woods and never see a lynx. The cat must hundreds of miles in search of prey and may never visit the same patch of forest twice. It is the very of . With so few prey animals here, life for a is particularly hard. Creatures are because few can eat conifer needles. The moose is an .

Growth is so difficult that conifers protect their leaves by filling them with . That reduces water loss, but it also makes them very distasteful. At least the conifer’s seeds are . But they are protected within armour-plated cones and it takes a specialist to reach them. The crossbill’s extraordinary beak can apart the scales so that its tongue can the seeds. Birds are . When the seasonal crop is , they can fly south.
Appendix 9: UNISA: Ethical Approval
MEMORANDUM

From: Prof FA Kalua
Chair: Higher Degrees Committee,
Department of English Studies

To: Ms M Carstens
MA, Student no.: 46327398

Date: 3 February 2016

Subject: COMPLIANCE WITH RESEARCH ETHICS OF THE UNIVERSITY OF SOUTH AFRICA

This letter confirms that Ms M Carstens has complied with the requirements of the Higher Degrees Committee in the Department of English Studies. Her proposal has been approved and she is now working on the research study on "The effect of DVD subtitles in English second language vocabulary and comprehension development"

The Department confirms the following:

- Ms Carstens is a registered MA student in the Department of English Studies at UNISA
- She is expected to work closely with her supervisor, Prof MMK Lephalala.
- She is aware of the Unisa Ethical Research policy and is expected to adhere to the policy requirements.

[Signature]
Professor FA Kalua
Chair: Higher Degrees Committee

Date: 3/2/2016

[Signature]
Professor MMK Lephalala
Supervisor: English Studies

Date: 3/2/2016

[Signature]
Dr A D Kreuiter
Acting Chair: Research (DERC)

Date: 3/2/2016
7.10 Appendix 10: Permission to Use Data
PERMISSION TO USE DATA

18 April 2014

TO WHOM IT MAY CONCERN

During 2014, Miranda Carstens in the Unit for Language Development, conducted a research study into the effect of using DVD Subtitles in English Second Language Vocabulary Recognition and Recall Development. The research adopted a mixed-method approach and data was collected through a survey and open-ended questionnaire, a vocabulary levels test, a vocabulary knowledge scale test, and vocabulary intervention activities. The participants in the study were students from the University Preparation Programme, enrolled in Natural and Agricultural Sciences. Each of the students involved in the study has signed and given written consent.

I hereby grant permission to Miranda Carstens, staff number 0859754, to use the data gathered from the UFS in 2014 in her studies.

Kind Regards

Prof. A.L. van Wyk
Head: Unit for Academic Literacy
Centre for Teaching and Learning