

RELATIONSHIPS BETWEEN READING ABILITY, VOCABULARY, READING  
ATTITUDES AND ACADEMIC PERFORMANCE AMONG FORM 5 LEARNERS  
IN SWAZILAND'S PUBLIC SCHOOLS

by

**MLUNGISI WELLINGTON NXUMALO**

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SUPERVISOR: PROF ELIZABETH J. PRETORIUS

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## DECLARATION

I declare that *Relationships between reading ability, vocabulary, and reading attitudes and academic performance among Form 5 learners in Swaziland's public schools* is my own work and that all the sources that I have used or quoted have been indicated and acknowledge by means of complete references.

.....

30 may 2016

(Mr Mlungisi Wellington Nxumalo)

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## **ABSTRACT**

It is well documented that reading plays a crucial role in success at school and beyond. Studies indicate that reading not only contributes to academic performance, but also enriches vocabulary. Positive reading attitudes and the will to read are factors that determine whether or not students read at school. However, not much reading research has been conducted in Swaziland. Using Form 5 learners from four public schools, this study explores the relationships between reading ability, vocabulary, reading attitudes, habits and access and academic performance among Form 5 Swazi learners. To complement the quantitative study, classroom observations were conducted to contextualise the quantitative results. The combined findings indicate that reading correlates robustly with vocabulary development and also with academic performance. The findings suggest that the ability to read and understand text plays a dynamic role in academic success. For students to be well informed and have a rich vocabulary, schools should make reading a priority.

Key words: Reading comprehension, vocabulary knowledge, reading attitudes and academic performance.

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## LIST OF ACRONYMS/ ABBREVIATIONS

- ❖ RC: READING COMPREHENSION
- ❖ AP: ACADEMIC PERFORMANCE
- ❖ PGCE: POST GRADUATE CERTIFICATE IN EDUCATION
- ❖ HIV: HUMAN IMMUNE VIRUS
- ❖ AIDS: ACQUIRED IMMUNE DEFICIENCY SYNDROME
- ❖ ECOS: EXAMINATION COUNCIL OF SWAZILAND
- ❖ SACMEQ: SOUTHERN AFRICA CONSORTIUM FOR MONITORING EDUCATION QUALITY
- ❖ DVKM: DEPTH OF VOCABULARY KNOWLEDGE MEASURE
- ❖ RCT: READING COMPREHENSION TEST
- ❖ SES: SOCIO-ECONOMIC STATUS
- ❖ ESL: ENGLISH AS SECOND LANGUAGE
- ❖ TV: TELEVISION
- ❖ STD: STANDARD DEVIATION
- ❖ ATT: ATTITUDE
- ❖ MIN: MINIMUM
- ❖ MAX: MAXIMUM
- ❖ L1: FIRST LANGUAGE
- ❖ L2: SECOND LANGUAGE
- ❖ UWL UNIVERSITY WORD LIST
- ❖ UIS UNESCO INSTITUTE FOR STATISTICS

# CHAPTER 1

## INTRODUCTION

### 1.0 Introduction

Educational researchers have found that there is a strong correlation between reading and academic success (Igwe 2011; Morris & Cobb 2004; Zunshine 2013). Duncan (2010) points out that people who read a lot possess stronger literacy skills and they also have larger vocabularies, believed to be one of the predictors for reading comprehension. The same view is upheld by Collins & Onwuegbuzie (2002) who point out that reading has been found to be a significant predictor of academic performance for learners at high school and college level. Reading also helps learners to master the content subjects taught at school. Learners whose reading skills are poorly developed are likely to struggle in the content subjects. Research indicates that poor readers tend to struggle with abstract concepts towards the end of school grades. The ability to read is a springboard for academic success not only at school but at college and university level as well. This shows that reading is the foundation on which success in all other subjects is based.

Reading enriches learners in all aspects of the curriculum. Research indicates that it not only nourishes and broadens the mind; it also develops vocabulary and improves academic performance (Cunningham & Stanovich 2001; Zunshine 2013). This suggests that reading paves the way to education and self-enlightenment as it exposes learners to new knowledge bases. The purpose of reading is to understand what is read: Pretorius (2002) opines that reading should be taught explicitly and improved during the school years because it constitutes the very process whereby learning occurs. Students who read a lot and understand what they read usually attain good grades. This indicates that reading and being able to comprehend what is read helps learners to pass content subjects at school. As Sallabas (2008) notes, through reading students can improve their language proficiency, expand their vocabulary and enrich

their general knowledge, which in turn will have a positive effect on their ability to 'read to learn' in the academic context.

My own eleven years of teaching experience at high school in Form 4 and 5 (equivalent to Grades 11 and 12) has shown me that learners in Swaziland's public schools lack a reading culture. By this I refer to an ethos created in and by schools whereby reading is valued and made a priority, books are visible and easily accessible, and reading and studying form the basis of growth and development in school. I have observed that learners from all the public schools in which I have taught struggle in their reading. Results or scores obtained by learners in English reading tests show that they are poor readers as the majority of them score an average of around 25% in reading tests deemed to be at their level. Another common observation across all the public schools where I have taught is that the learners tend to read slowly such that they seldom complete the reading tests. It appears as if the ten years spent from primary to junior secondary schools have not adequately prepared them for the amount of reading required or done at high school in Form 4 and 5. This raises serious concerns about their prospects of reaching tertiary education. I have also observed that the reading problems do not only affect subjects such as English and Literature but they spread to the other content subjects offered in the curriculum. That leads to poor academic performance generally and class repetition.

Research has shown that the level of development in a country is directly proportional to the literacy level of its populace (Igwe 2011). Even though the United Nations International Children Emergency Fund report (2013) shows that the literacy rate in Swaziland increased from 84% in 2011 to 87% in 2013, it appears that the Swazi government, schools and teachers still have a lot to do to improve literacy in the country and reading ability in the schools. The 87% literacy rate in Swaziland implies that the illiteracy rate in Swaziland only stands at 13%, but says little about the quality of literacy: what kind of texts can 87% of the population actually read, and how well they can read and understand them? Literacy remains a challenge, given that the country plans to reach first world status by the year 2022.

The 87% literacy rate given above may thus be deceptive. This is because it refers to basic literacy only. Etim (2007) describes basic literacy as an individual's ability to read and write

simple sentences. If the country is to achieve first world status by 2022, and if it is assumed that reading is a cornerstone for learning, then there is a pressing need to develop literacy and ensure that learners do not struggle to read but that they can read fast, efficiently and at an independent level, where they understand what they read. Studies indicate that children may develop emergent literacy before they even begin Grade 1 (Ntuli & Pretorius 2005). Sulzby and Teale (1991, in Ntuli & Pretorius 2005) define emergent literacy as children's early knowledge about reading and writing that develops during their pre-school days. This knowledge includes familiarity with print material, attitudes and behaviours related to literacy. Ntuli and Pretorius (2005) point out that the early knowledge about reading and writing is not taught explicitly but is acquired unconsciously through social and verbal interaction patterns that children engage in with adults in their immediate contexts. One of the challenges facing Swaziland regarding promoting reading within each family is that a number of parents, especially in the rural areas, have low literacy levels and some may not even have attended school. This leads to a lack of parental support for learner's reading activities. Oyaro (2005, in Igwe 2011) explains that encouragement from parents and teachers influences learner's interest in reading.

### **1.1 Aims of the study**

The aims of this study are to investigate the relationships between reading ability, vocabulary size, reading attitudes and academic performance among Form 5 learners in Swaziland's state schools, using quantitative research tools. Moreover, this study also includes classroom observations to complement the quantitative component of the current study and to help the researcher to situate the quantitative findings within a more detailed context.

### **1.2 Rationale of the study**

The rate of failure in most public high schools in Swaziland is a cause for concern. In some state schools, it is common to hear that all Form 5 learners who sat the final examination failed to obtain credits, i.e. a grade above 60%, in the examination (Examination Council of Swaziland report 2011). It is against this background that this study seeks to examine the relationship between reading ability, vocabulary size and academic performance in the country's public schools. Since it is believed that reading affords learners independent access to information and

that reading and academic performance are in a reciprocal relationship (Cunningham and Stanovich 2001), this study hopes to bring to the fore the role that reading can play in improving the general pass rate of learners at high school. Finally, the rationale of this study is to examine how attitudes affect or support reading and to show how learners can be helped to develop positive attitudes to reading.

### **1.3 Research context**

To clarify the background in which this study takes place, it is vital to describe schooling in the broader Swazi context and to also outline how teachers are trained in the country to teach at high school specifically. For the purposes of understanding the context of this study, this section will discuss the official languages spoken in Swaziland, print-based resources in the official languages and the country's schooling system, culture and learning in Swaziland, socio-economic status factors in the country, reading resources in the country's public schools and the availability of public libraries in Swaziland. This section will also discuss the academic performance of learners in Swaziland.

#### **1.3.1 Official languages in Swaziland**

Swaziland is a country of about 1.2 million people and most of them are rural based (UNICEF report 2008). The people of Swaziland are homogeneous, being of the same tribe and speaking one language, siSwati. Although English is a second language, it shares an equal status with siSwati, the first language. According to the Ministry of Education Policy (2011, 25), siSwati and English are both regarded as official languages in the constitution of Swaziland. While this implies that both languages may be used as a medium of instruction, the policy directive of the Ministry of Education and Training is that the mother tongue should be used officially as a medium of instruction for the first four grades of school. After that, English, is first introduced as a subject in Grade 2, and becomes the language of learning and teaching (LoLT) in all the subsequent levels of schooling.

To develop fluent reading skills in the first language, the learners have readers and other texts in siSwati for the early grades. The use of siSwati as a medium of instruction for the first four

grades does not mean that the teaching materials that are in English should be translated to siSwati. It means that teachers in the first four grades of school have the liberty to use siSwati as a medium of instruction where learners fail to understand what is taught in English. This relieves the burden from teachers whose learners enter Grade 1 without having attended English medium pre-schools or not having attended pre-school at all, which is a common occurrence in some communities. While this liberty is granted to teachers in the first four grades to teach in siSwati where there is a need, English as a subject continues to be taught in English at all grade levels. SiSwati as a subject remains a core subject in all state schools and at all grade levels up to Form 5. While siSwati is used in the home setting, English is not only used as a medium of instruction at school but it is also used as the language of business, government, television entertainment and formal address.

### **1.3.2 Print-based material in the official languages**

The UNICEF report (2008), estimates that 69% of the people in Swaziland live below the poverty line. This means that many parents are not able to buy their children extra reading material to read at home or send their children to English medium pre-schools and primary schools because they are expensive. In rural areas the siSwati version of the Holy bible is commonly the only book to be found in many homesteads. This paucity of print based material is also reflected in the schools. The public schools attended by most learners are characterized by insufficient stationery and reading materials. This applies to print resources both in siSwati and English, even though there are more print-based resources in English than in siSwati. The lack of print materials in the mother tongue is evident in that newspapers nationwide are in English. The neglect of reading in the mother tongue hinders reading at an early age where children may read in their native language. It is important to foreground the lack of reading materials at elementary school because this study examines the relationship between reading, vocabulary, reading attitudes and academic performance at high school. Elementary school is normally where the problem of insufficient exposure to and motivation for reading starts. Information in poorly resourced schools is passed to learners orally. Since reading is a basic source of acquiring knowledge and learning, the situation in which learners from public schools

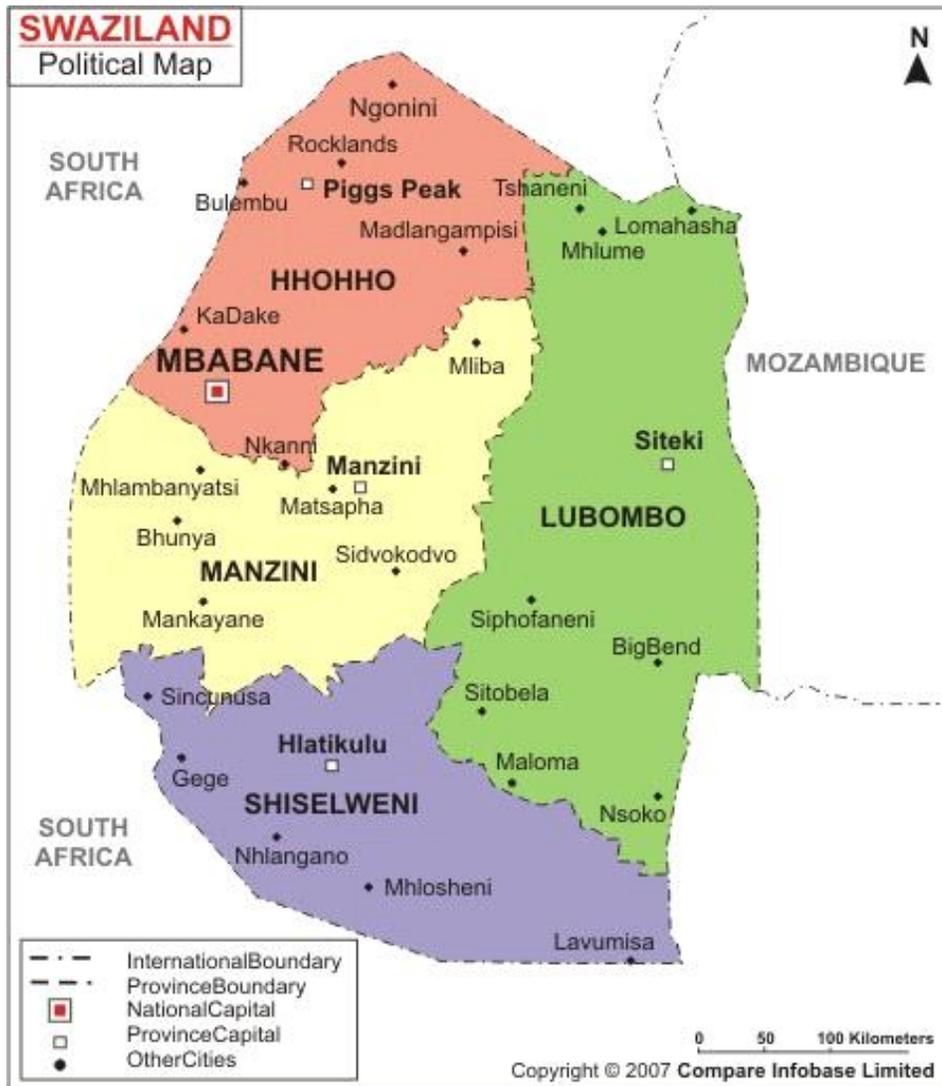
find themselves in at elementary level of education jeopardizes their academic success at school. This may be evidenced by the fact that at high school, educators complain that even when they give books to learners to read, learners resort to chatting with their friends instead of reading. There may be many factors that contribute to this challenge. One of them could be that Swaziland has in the past been an oral society. Kasenene (1993) notes that until recently, Swazi society was illiterate. In such a society education is imparted orally and cultural beliefs, values and history are preserved and transmitted from one generation to another by word of mouth. Traditionally, in Swaziland, telling and listening to stories, legends, myths, posing and solving riddles, singing and asking questions by the young to the elderly is part of the oral aspect of the Swazi life style. It is through these activities that traditional knowledge is imparted to the Swazi youth. However, to improve access to schooling a generous step was taken by the government in 2010 to provide free primary education for Grades 1-7. Even though at present there are no reading resources except the prescribed books, one hopes that the government will eventually further help schools by providing them with extra reading materials.

### **1.3.3 Schooling in the Swazi context**

The formal education system in Swaziland consists of seven years of primary school, three years of lower secondary school and two years at high school, Form 4 and 5, the levels on which this study focuses. A UNICEF report (2008) states that there are 557 primary schools and 217 high schools in Swaziland. These schools are spread across the country's four geographical regions; Hhohho, Manzini, Lubombo and Shiselweni, as shown in Figure 1.1. The first two of these geographic regions are relatively more urbanized while the latter two are rural.

A large number of people in Swaziland are illiterate due to factors such as poor location of schools and socio-economic challenges. For this study, it is important to understand the location of the schools because the study includes urban and rural state schools in its investigative scope. The UNICEF report (2008) highlights that from the 557 primary schools, the enrollment ratio stood at 93% and the attendance ratio stood at 84 % in 2007.

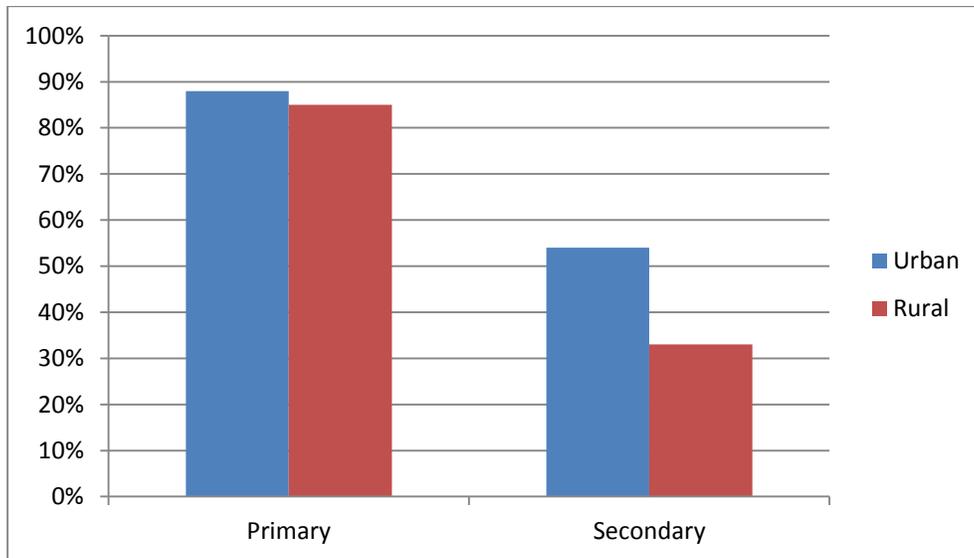
Figure 1.1: Regions of Swaziland



The high school level, which is the focus of this study, is reported to have had 83,096 students enrolled in 2011 across the 217 public high schools. Secondary school attendance and enrollment rates are considerably lower than primary school rates, due to poverty, inaccessibility of schools and high dropout rates. Some schools in the rural areas are not easy to get to and as a result some learners have to travel over 9 kilometers to school in various parts of the country. Consequently, most learners do not consistently attend school and may drop out in the course of the year. This accounts for the low attendance figures in the rural schools as compared to urban schools. For example, it was estimated that in the Lubombo region

(shown in Figure 1.1), the total school attendance stood at a low 29%, while Manzini, a semi-urban region, recorded an attendance rate of 39% in 2007. The bar chart below shows the primary and secondary school's rural and urban net attendance ratio for the year 2007 in the four regions and there has not been much change since then (UNICEF report 2008).

**Figure 1.2: Primary and Secondary school rural/urban net attendance ratio 2007**



#### **1.3.4 Primary and secondary school performance**

The general performance of learners before reaching high school is far from good in many Swazi state schools. Learners in Swaziland spend twelve years of schooling in public schools. The primary level of education runs from Grades 1-7, and the secondary level of education runs from Grades 8-10. The policy of the Department of Education is that English should be the medium of instruction from Grades 4 upwards. Learners who do not understand English in Grades 1-3 can be taught in their mother language, siSwati. However, teachers are also free to conduct their lessons in the vernacular in the first four grades of school even if their learners understand English.

From Grades 2 upwards, English is taught as subject. Due to the fact that a number of learners do not attend pre-school or attend poor pre-schools where they have little exposure to English, teachers tend to code switch what they teach in English to siSwati. Free primary education has

just started in Swaziland and this only applies to Grades 1-6. However, a further challenge, as already stated, is a resource one as most of the primary schools are poorly resourced. Many of the public schools do not have reading materials in the form of textbooks, workbooks, novels or readers. Learners are forced to rely heavily on the prescribed books for the content subjects. So one of the causes of the lack of a reading culture in the entire school trajectory of learners in the country could be the fact that reading, both in the second language and first language, hardly happens in the elementary grades.

The results of a lack of exposure to reading are disastrous, as can be observed from the yearly reports given by the national examining body, the Examination Council of Swaziland. At Grade 7, learners sit for a national exam prepared by the Examination Council of Swaziland. The majority of learners perform poorly in this examination, which is supposed to guarantee entry into secondary school. Most learners scrape through the examination with low grades ranging from C to E. A source of concern is that core subjects like English, Science and Mathematics are the worst performing with grades D or E. Such performance indicates that though these candidates are said to have passed Grade 7 with these low grades, a poor foundation has been laid and they will struggle at secondary school where all the subjects are taught in English, the language they have had little exposure to at primary school.

Secondary education comprising junior secondary (Forms 1-3) and high school (Forms 4-5) is supposed to lay a foundation for entry into tertiary level (Ministry of Education and Training 2013). Even at this level of education, learners continue to struggle due to several factors, one of them being poor reading abilities and a weak culture of reading in schools. The fact that all the content subjects at secondary school are offered in English except for siSwati, creates an even bigger problem, resulting in dismal performance from the learners. In part this is caused by low levels of proficiency in English.

Anecdotal evidence and my own teaching experience suggest that despite teachers making desperate calls for learners to read ahead and be involved in their learning, learners do not read because they find it difficult and they are not used to reading on their own, so they rely on teachers to convey the information orally for them. This tendency of teacher dependence

further encourages the educators to read aloud to learners in class, in the hope that this will foster learning. Learners depend on the teacher for answers to all the various subjects studied.

At the end of junior secondary education, in Form 3, learners take a national examination meant to prepare them for entry into high school. As is the case in the Grade 7 national examinations, there seems to be little improvement in the Form 3 examinations. To be considered to have passed and ready for entry into high school, learners need to pass five subjects with at least an E grade or higher. Most learners come with a string of six or seven E grades in all subjects taken in the Form 3 exams. This always raises a question about their state of readiness to begin high school education. The Examination Council of Swaziland report (2011) highlighted that learners seem unable to read and understand simple instructions during exams. Consequently, subjects like English Literature, English, History, Geography, Mathematics and Science are the worst performing.

### **1.3.5 Teacher training**

Swaziland has stable teacher training institutions and a large number of qualified teachers in public schools. According to the Ministry of Education and Training report (2013), the country has reduced the proportion of unqualified teachers in all public schools. Even though having qualified teachers does not necessarily guarantee quality teaching in the classroom, there are few unqualified teachers in Swaziland's public schools. A recent Ministry of Education report estimates that only about 8% teachers at primary school are not qualified and only about 2% at high school are not qualified. The Ministry of Education and Training further points out that an average learner-to-qualified teacher ratio stands at 37:1 at primary level and 19:1 at high school level.

A UNICEF report (2008) notes that teachers in Swaziland are trained at five different institutions, namely the University of Swaziland, Swaziland College of Technology, Nazarene University, William Pitcher College and Ngwane College. Normally, the University of Swaziland offers degrees and a Postgraduate Certificate in Education to students who graduate to teach at high school. The students in this university undergo a five year education program in which they are taught and prepared on how best to handle and teach learners from various backgrounds.

In the same vein, the other institutions listed above prepare students who graduate with a diploma in Education to teach at the primary level. The primary level of education is the one that still needs improving because, as stated above, 8% of unqualified teachers are found there. Table 1.1 below shows primary school teacher distributions by qualification as reported by UNICEF (2008). Table 1.1 below shows that there are more poorly qualified teachers in the rural regions.

**Table 1.1: Primary school teacher distributions by qualification in each region**

	<b>Hhohho</b>	<b>Lubombo</b>	<b>Manzini</b>	<b>Shiselweni</b>
Teachers with degree or diploma	90.9%	81.0%	92.8%	85.9%
Non-degree or non-diploma teachers	9.1%	19.0%	7.2%	14.1%

Even though there are so many institutions of teacher training in Swaziland, there are acute shortages of teachers in specific subjects such as Mathematics, Science, Information, Communications and Technology and pre-vocational studies including Design and Technology and Business studies. The shortage of teachers for the subjects listed above dates back to decades ago. The Ministry of Education and Training report estimates that in 2005, an average learner to qualified Mathematics and Science teacher ratio was 84:1, and there has not been much change since then. This is a challenge that contributes to poor performance in these subjects at levels of high school education. Attempts by the Department of Education to get more Mathematics and Science teachers have been futile as these teachers seek greener pastures in other industries in the country.

The UNICEF report outlines that in terms of quality education, Swaziland fares relatively well compared to other countries in Southern Africa. A clear example is that in 2008, Swaziland

performed above average in certain indicators, including equity in the performance of sixth graders in Mathematics and English in learning achievement among students from different socio-economic backgrounds. However, it seems to be difficult to sustain this achievement as pupils progress into high schools. A lack of qualified teachers, particularly in the rural areas, impacts on teachers' capacity to educate their pupils to required standards. An index of the quality of education being a challenge in the country is evident in class repetition rates, which remain high both at primary and high school. At primary school, for example, repetition rates remain at 16% and about 10% across the grades at high school. The government has shown commitment to teacher education and to improving the quality of education in the country by revising teacher education and instruction curricula in an effort to address these concerns.

### **1.3.6 Culture and learning in Swaziland**

Swaziland is a country that is deeply embedded in traditional values and norms. The relevance of culture for this study cannot be underestimated. Cultural norms can lead to either positive or negative reading attitudes, which may either support or be detrimental to learning. Being an oral society, Swazi culture tends not to overtly support or promote reading. Matsebula (1988) notes that Swazi society is an oral and traditional society. In the rural areas where many cultural activities are conducted, information on traditional customs is passed on by word of mouth. This happens regardless of the fact that in this era almost everybody is literate. Even in large cultural gatherings in the communities where both young and old converge, the youth are never explicitly advised to take schooling seriously. Instead, the boys are advised to dedicate themselves to serve the King. This dedication is called 'kubutseka' in siSwati which can be loosely translated to mean 'identifying with, committing yourself entirely to, and paying total allegiance to the King'. This happens through forming regiments not only of adult males but also of school going age male children. Most of the regiments put everything aside, further education included, and focus entirely on serving the King. In their gatherings, the leaders tell tales to the young ones, no one has time or the intention to help the youth take schooling seriously. Some of the songs composed in these gatherings ridicule the educated, showing the negative attitude they have towards schooling. Life therefore becomes a cycle of oral traditions

as the young men grow up to initiate new recruits as well. This waters down the efforts of the dedicated school teachers who tirelessly urge boys at school to read, learn and study to change the history of their generation. Some have argued that if the young took learning as seriously as they did their cultural activities, the sky would be the limit for them academically.

**Figure 1.3: Regiments at a cultural event**   **Figure1.4: Dedicated boys at a cultural event**



Swaziland is also a patriarchal society. Culturally, women are looked down upon in the Swazi way of life. An unfortunate part is that most of the school teachers who try to show learners the importance of reading are females. The cultural practice of looking down on females automatically gets transmitted to the school environment. If the learners, especially the males, are taught by a female teacher, their belief is that she is incompetent to advise them. As women are thought incapable of being role models for boys, whatever lesson presented by female teachers on the importance of reading may fall on deaf ears. The male learners consider these lessons 'feminine', something which is considered as a sign of weakness culturally. To most of the male learners, the way of life is to partake in 'masculine' lessons given by their male leaders, their role models in the traditional gatherings held in the various chiefdoms. To show the stereotypes and negative attitudes enshrined in the Swazi culture, Herbert (1992) opines that young men take offence at being likened to their mothers. Even to suggest that a boy looks like his mother would be regarded as offensive; a boy would rather be manly and do like his father even if the father is not a proponent of learning or not learned himself.

As shown by Gentile (1975, in Lukhele 2009, 6), in a context where being a traditional Swazi male is a source of pride, it seems that attitudes to reading can best be modeled by male teachers, their real mentors. That could make the male learners more likely to be open to the idea that reading and learning are the most important academic tools for one to be effective and relevant in today's society. This brings to memory a worrying incident that happened in the school where I teach in a rural area. Following a series of poor results in the continuous assessment of the completing classes, Form 5 learners, the teachers sat down with the poor performing learners to find a solution. A common response given by 90% of the boys who participated in the session was that they did not have time for books. Their role at home was to plough and herd cattle, and reading was not a priority. Asked further on why that was the case, the teachers observed that that was what their fathers expected them to do and little significance was attached to schooling.

Moreover, some Swazi people consider reading and learning as unrewarding tasks. This is because they draw no pleasure from them. To them pleasure is derived from socializing with friends or neighbours. The argument by Lukhele (2009, 5) on the cultural perspective of Swaziland where she notes that public transports are noisy gatherings in Swaziland shows that Swazi people have not incorporated leisure reading into their lifestyle. Even those who read newspapers will tend to skim through the interesting sections of the paper like the sports section. The beliefs and behaviour of a majority of Swazi people can be summed up in one common motto 'It is unSwazi and rude to read in the midst of people'. However, such cultural beliefs impact negatively on learning in the 21<sup>st</sup> century, hence the poor academic performance at Form 5 as discussed later in this chapter. In this study the cultural aspect will be assessed by the reading questionnaire whose items elicit participants' beliefs about the importance of reading and cultural norms regarding reading.

### **1.3.7 Socio-economic factors**

Schooling in Swaziland is severely threatened by persistent socio-economic factors. According to the UNICEF report (2008), the education sector in Swaziland continues to struggle with three devastating and deeply interrelated scourges. These are poverty, the Human Immune Virus

(HIV) and food security. For this study it is important to discuss the socio-economic factors and their effects on education as research studies (e.g. Bracey 1997; Price 2009) indicate that children in poverty do not achieve well in school. Tibane (2007, 7) points out that the socio-economic status of over two thirds of the Swazi population is characterized by abject poverty. This is problematic because studies indicate that rising levels of poverty have a significant impact on household income which is a determinant of school attendance.

The last House hold Income and Expenditure Survey carried out in Swaziland showed that 63% of the population lives below the poverty line and 37% lives in extreme poverty (United Nations Development Programme report 2011). Most parents, especially from the rural areas, are illiterate, a factor which may hinder academic achievement as children in such conditions normally lack a role model with regards to education. A United Nations Development Programme report (2008) emphasizes that the level of education a mother has received does not only promote chances of survival of her children but it may also be a determining factor of how far her child goes at school. The UNICEF report (2008) further highlights that in the rural areas women have less access to education, and as many as 70% of adult females are illiterate. This lack of parental education becomes a problem because even if teachers call parents to discuss academic challenges faced by a child, the parent may fail to understand and take the necessary corrective measures or provide support for the child.

Another problem faced by parents and learners in Swaziland's state schools is the inaccessibility of quality education. High school education, Form 4-5, is not free in Swaziland. The effects of poverty make parents unable to pay for their children's education. Schooling becomes a burden because parents are required to pay for other services and resources. These include textbooks, building funds, uniform and examination fees. School accessibility is also a challenge, especially in the rural areas due to scattered settlements. Even though high school learners are older, the distance to and from school poses a threat to academic achievement. As stated earlier, some learners travel an average of 9 kilometers to school and by the time they get there, they are exhausted and unable to concentrate on lessons.

The second challenge threatening education is the HIV-AIDS virus. In fact, this is the greatest challenge faced by Swaziland and this virus has affected all levels of society and also impacts negatively on education in the country. Recent health surveys show that the country has the highest prevalence rate in the world. The impact on learners is worse because it results in rising numbers of school drop outs. The death of parents and guardians leaves behind orphaned and vulnerable children who struggle to pay school fees and feed themselves. The teaching capacity is also severely affected by AIDS, because many teachers teach when they are sick and in the process become ineffective.

The HIV virus and high levels of unemployment also lead to hunger which affects learners severely. As poverty and unemployment take their toll, many learners are forced to go to school hungry and this deprives them of the ability to focus and concentrate throughout the lesson. So these are factors that militate against education in Swaziland. Recently the government has intervened by setting up feeding schemes in almost all state schools; an endeavour which is believed to be able to solve the problem of hunger among the learners. Research has also shown that poverty may lead to limited or lack of reading resources as parents and schools are unable to buy books for learners, especially in an environment where education is neither free or government subsidized. This calls for government intervention which has not materialized so far in public high schools. The next section of this study discusses reading resources in Swazi state schools.

### **1.3.8 Reading resources at high schools**

The state of reading resources in public schools leaves much to be desired. There is a serious shortage of reading material right from primary up to high school. This applies to both reading material in the first language and the second language. At school learners only learn from the books prescribed for the various content subjects. As was stated § 1.3.7, poverty is rampant in many public schools, so Head teachers do not think novels or reading materials are a priority. This is evident in that their yearly budgets never cater for purchasing novels or readers which may assist learners develop proficiency in the additional language. The argument is that there is no money and teachers should not budget for material that learners can do without.

In the past learners were expected to buy books for the various content subjects but those from poor backgrounds could not afford to buy them, resulting in book sharing during teaching. To mitigate the problem, schools have resorted to the book rental system where each learner may have a personal copy after paying school fees and then return the book at the end of the year. The absence of school libraries also adds to the problem of inadequate print materials. Learners in most public schools do not have the privilege of reading for pleasure or reading to supplement the knowledge gained in the content subjects. However, the message drawn from Igwe (2011), and Pretorius and Currin (2010) is that books are essential no matter how rich or poor a nation is. It is a fact that poor schools and parents cannot afford print resources on their own unless government intervenes and provides schools with books. The problem in Swaziland is that the government has not taken the decision to provide schools, especially high schools, with books which may help develop language competency. Educators in the state schools also do not adequately stress the importance of reading for learners to acquire knowledge. This problem starts from the primary schools and by the time learners get to high school, some of them struggle to identify and pronounce words correctly.

In the urban areas, some schools have libraries and books in the form of fiction and non-fiction. Even though teachers in these schools advise that sound reading improves overall language and academic performance of learners, reading comprehension is not taught explicitly. Teachers seem to believe that at high school learners should be able to decode, yet research studies have shown that decoding is not enough in achieving comprehension of texts. Igwe (2011) argues that to inculcate a culture of reading, schools should not stop teaching reading at lower primary schools but they must continue even to secondary school. In Swazi public schools reading is taught mainly at the lower grades of primary schools. When learners begin secondary school education the teaching focus is directed to the content subjects in the curriculum. Signs that reading is neglected in state schools can be observed in that some schools do not have school libraries nor do they include a reading period in their timetable; those that have a reading period do not use it for what it was designed for. Teachers either ask learners to study during this period or they simply use it for revising or catching up on work.

Swazi public schools normally allocate the reading period to teachers of English if the school has a reading period. Figure 1.5 below shows, a timetable for a teacher of English in urban School B. This timetable does not have a reading period. The unavailability of a reading period suggests that some public schools in Swaziland do not seem to attach significance to reading.

**Figure 1.5: Form 4 teaching timetable**

		Woodlands High School												
		Teacher K. Lukhele												
SK Seri Bintang Selatan, Cheras, KJ.		1	2	3	4	BREAK	5	6	7	8	LUNCH	9	10	11
		8:00-8:40	8:40-9:25	9:25-10:00	10:00-10:40	10:40-11:20	11:20-11:55	11:55-12:35	12:35-13:15	13:15-13:55	13:55-14:35	14:35-15:05	15:05-15:45	15:45-16:25
Mo	LR F4A F4B <small>Literature in English</small>	LR F4A F4B <small>Literature in English</small>	EL F5A <small>Literature in English</small>	EL F5A <small>Literature in English</small>					EL F4A	EL F4A				
Tu			EL F5A <small>Literature in English</small>	EL F5A <small>Literature in English</small>			LR F5A F5B <small>Literature in English</small>	LR F5A F5B <small>Literature in English</small>						
We	EL F5A	EL F5A	LR F5A F5B <small>Literature in English</small>	LR F5A F5B <small>Literature in English</small>					LR F4A F4B <small>Literature in English</small>	LR F4A F4B <small>Literature in English</small>				
Th							EL F4A	EL F4A	LR F1B	LR F1B			LR F4A F4B <small>Literature in English</small>	LR F4A F4B <small>Literature in English</small>
Fr	EL F4A	EL F4A	LR F5A F5B <small>Literature in English</small>	LR F5A F5B <small>Literature in English</small>										

The failure to develop reading skills during elementary schooling becomes serious as the learners enter high school and they become very poor in reading. Sternberg (1996, in Pretorius & Currin 2010, 67) points out that children who start off poorly in reading rapidly become even more disadvantaged relative to other readers whereas the reverse happens for learners who have a good start in reading.

The issue of limited resources and failure of government to intervene by providing books for schools has been to some degree mitigated by the assistance given by non-governmental organizations. These are Fundza, Macmillan and World Vision to name just a few. With some of these NGOs, schools are expected to make a yearly subscription of R1, 000.00 to receive books which may assist learners in the course of the year. However, since it has not dawned on most

principals that reading is important for learner development and to improve academic performance, most of the school principals fail to pay the subscription required to get books. This paints a gloomy picture for the future of the learners and the country for, as Jardine (1986, 57, in Lukhele 2009) points out, 'reading is the most important skill to be acquired if ones academic career is to advance beyond school to tertiary education'. Some of the learners who do not have books in the schools, especially in the urban schools, have been advised to make use of the national library in town. This leads to the next subject of discussion, the availability of libraries in Swaziland.

### **1.3.9 Access to national libraries**

Learners should be able to read not only at school but outside school as well. This is because reading provides us with information and information is power (Pretorius 2000). Investigating the accessibility of sources of information and reading resources outside school is a factor that will be included in this study in order to identify other sources where learners can acquire knowledge and resources which learners have at their disposal. National libraries can be a solution to the lack of reading materials in state schools. However, that depends on how accessible they are to learners, how well stocked and resourced such libraries are and how motivated learners are to visit the library to get books from there.

Libraries can become centers of reading and therefore of learning in both urban and rural communities. In Swaziland, there are four national libraries. These national libraries are located in the four geographical regions shown in Figure 1.1. Unfortunately, four libraries nationwide are not able to service all the learners in the country even if they were to take reading seriously. The location of the national libraries only favours learners in the towns, because in the rural communities there aren't any libraries. Learners in the rural areas can only have access to the national library once in a while when they happen to be in towns. As a result of the limited availability of national and school libraries, the rural communities where levels of illiteracy are high continue to produce semi-literate individuals; a situation which becomes an unending negative cycle. The situation is slightly better in the urban areas because even though the national libraries do not have current or new fiction and nonfiction, learners who are

serious about reading are able to access some resources for reading. Everyone is allowed membership to the library and this guarantees one the right not only to read in the library but to also borrow books to read at home. The understanding within the government that failure to have reading centers and resources has a negative effect on learning has been instrumental in helping the national libraries to open up internet services to the public. This was unheard of in the past. However, a notable problem with the national libraries is that they have little liaison with schools to promote a culture of reading. As a result, not all learners in the country are well informed about services offered in the national libraries.

Swazi people have a predominantly oral approach to life, as discussed earlier in this chapter. Even though high school learners from urban schools make use of the library, they use it mainly as a venue for studying or for rather noisy social interaction and not as a place for reading, searching for information or sourcing additional texts. The library staff tries in vain to calm them. Such behavior suggests that teenage learners are unfamiliar with the practices and conventions traditionally associated with libraries as quiet places to read and access information. Consequently, the low reading levels and the poor academic performance observed among many learners remain a norm in the schools, as shall be discussed in the next section.

### **1.3.10 Form 5 academic performance**

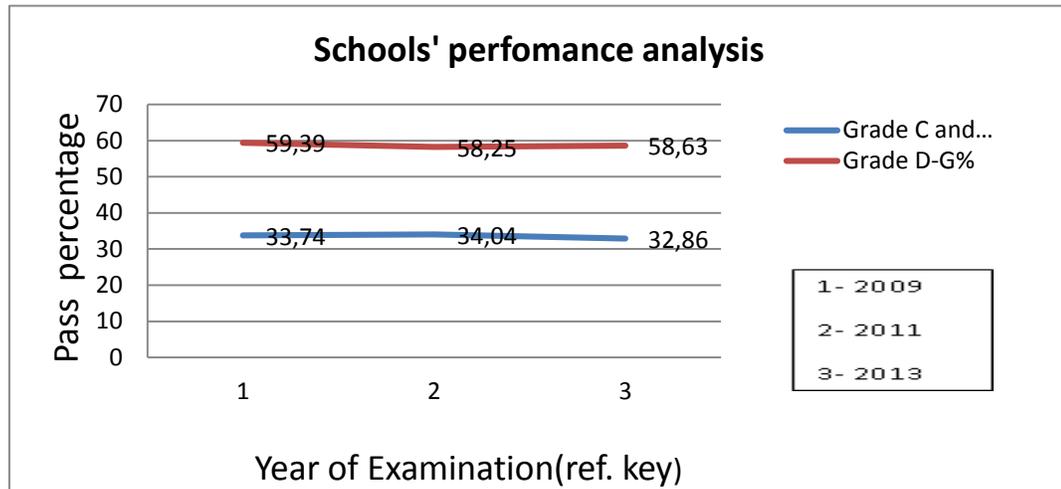
The general performance of many learners in the Form 5 national examinations is very poor in Swaziland. Swaziland's education policy states that from primary to high school, lessons should be learner centered. However, as discussed earlier, teachers claim that the lack of reading resources forces them to present teacher-centered lessons in their classrooms. Teachers feel that their students look up to them as sources of knowledge and information. From primary school, learners are spoon-fed in all the subjects and there is a tendency to rote learn the information. According to Larsen-Freeman (2000), rote learning and memorizing notes prove too little and ineffective at high school, resulting in poor grades in the tests and examinations. This results in teacher dependence right from primary school, and it becomes increasingly hard for learners to pass at high school with only the information given by the teachers in class as

each lesson requires learners to supplement what was learnt in class with information from other sources. Learners continue to depend on the notes given by their teachers' in spite of the instruction to do their own reading.

The academic performance of Form 5 learners over the past three years in all subjects studied has been far from good. A statistical analysis of the 2009, 2011 and 2013 Form 5 results done by the Examination Council of Swaziland (ECOS) showed a low number of total credit percentage pass. Credits are represented by symbols A, B and C, with A representing scores from 80-100%, B representing scores from 70-79 and C representing scores from 60-69%. The symbols D to G represent fail. A further analysis of the Form 5 results for the three years given above yielded a below average credit mean percentage (ECOS 2014). Their credit mean percentage over the three-year period has fluctuated and there was a notable drop in performance in terms of credit mean scores between 2011 and 2013. The performance of the state schools within the three-year period was such that more learners failed (obtained symbol D-G) the examination than those who obtained credits.

The poor performance has prompted the examining body, the Examination Council of Swaziland, to encourage teachers to emphasize the importance of reading in their lessons and encourage their learners to read widely (ECOS 2010). The examiners note that failure stems from inability to follow instructions given in the examination papers. In part, this is caused by learners' limited vocabulary as some of the words used in the examination are way beyond the understanding of the learners. Research studies have shown that reading enriches vocabulary and comprehension, which in turn help learners to perform well in the different subjects taught in the curriculum. It is in light of the above that the Examination Council of Swaziland has encouraged educators in the country to emphasize the role of reading in learning and academic success.

Figure 1.6: Form 5 results 2009 to 2013



#### 1.4 Research problem

As highlighted in § 1.1, this study aims to investigate the relationships between reading comprehension, vocabulary, and academic performance among Form 5 learners in Swaziland's state schools. Secondly, the study aims to investigate the relationship between Form 5s reading habits and attitudes towards reading on the one hand, and their vocabulary knowledge, reading comprehension and their general performance at school on the other hand. Thirdly, this study also includes some classroom observations in order to explore more closely possible relationships between lesson content and Form 5 learners' reading comprehension, vocabulary and academic performance in Swaziland's public Schools.

As it will be explained in greater detail in the methodology chapter, Chapter 3, this study will use a reading comprehension test, vocabulary levels test, reading questionnaire and a compilation of the Form 5 students' academic performance scores. The results of this study may help us better understand the role that reading comprehension and vocabulary knowledge play in academic performance, from which pedagogical implications may be drawn. As will be discussed in more detail in Chapter 2, the literature review, Collins and Onwuegbuzie (2002) highlight that reading has been found to be a significant predictor of academic performance for learners at high school and college levels.

## **1.5 Research questions**

Using an exploratory approach, this study will be guided by the following research questions:

- What is the relationship between reading ability, vocabulary and academic performance?
- What are the differences in performance between reading comprehension, vocabulary and academic performance in urban and rural state schools?
- What are the differences in performance in reading ability, vocabulary and academic performance between genders?
- What is the relationship between reading habits, reading attitudes and performance in reading comprehension and vocabulary?
- How is reading comprehension and vocabulary enacted in Form 5 English classrooms?

## **1.6 Research method**

This section briefly identifies the participants, instruments and the procedures of the current study; these methodological issues will be described in greater detail in Chapter 3.

A pilot study was conducted towards the end of the 2012 academic year with Form 4 learners from two of the state schools that would participate in the main study. The participants were in the 16-20 age range and they came from naturally occurring classes. They spoke siSwati as their first language and English as a second language.

The main study was conducted in 2013 with Form 5 learners from two rural and two urban state schools. The participants were also in the 16-20 age range and they came from naturally occurring classes. The participants spoke siSwati as a first language and English as a second language.

Four research instruments were used to collect data for the current study, viz. a reading comprehension test, a vocabulary levels test, a reading questionnaire and an observation schedule for the classroom observations. The reading comprehension test was used to

investigate participants' reading ability and the reading questionnaire was used to collect information on participants' reading attitudes and access to reading resources. The observation schedule was used to investigate how teachers conducted lessons and how the lessons were structured, and to establish teacher and learner practices and behaviour in the classroom. In addition to the three research instruments given above, a fourth research instrument, the vocabulary levels test was added during the main study. The vocabulary test was used to assess participants' vocabulary size according to word knowledge at different frequency levels.

### **1.7 The structure of the dissertation**

This dissertation has been developed into 6 chapters.

Chapter Two reviews the literature on reading comprehension, vocabulary knowledge, attitudes and academic performance and shows how these are related to the issues discussed in the current study.

Chapter Three describes the research methods used in the current study. It gives a detailed description of the participants, research instruments and procedures followed in the pilot as well as the main study. It also explains how the data was analyzed.

Chapter Four presents the findings of this study according to the research questions. Descriptive statistics are reported first, followed by inferential statistics. This is followed by a discussion of the findings.

Chapter 5 presents the qualitative aspect of this study. It reflects on the classroom observations conducted in the participating schools.

Chapter 6 summarizes the findings of the study, highlights the limitations of the study, and suggests areas for further research. It will also identify pedagogical implications that follow from the findings.

## **1.8 Conclusion**

This chapter has introduced the theme of this study, highlighted the aims and presented the rationale of the current study. It has also discussed the context in which this study takes place. The socio-economic status of the Swazi people has also been discussed. Finally, I highlighted the research problem and also touched on the research questions that will guide the study.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

As stated in Chapter 1, the current study focuses on the relationships between reading, vocabulary, attitudes towards reading and academic performance among Form 5 learners in Swaziland's state schools. In this chapter I will present the literature that relates to the current study and explore aspects of reading, vocabulary, attitudes and academic performance that have been researched and discussed by other scholars in the field. I will present the review according to four main topics that are related to the study's research questions. Firstly, I shall review the literature that pertains to reading, specifically reading comprehension. This will be followed by a review of the literature on vocabulary and academic performance. Thereafter I shall present the literature on reading attitudes and how people's perceptions of reading affect their attitudes and behavior.

#### **2.1 Reading**

People sometimes overlook the fact that most of the knowledge and information that is available today is stored in print material (either paper based or digital) and it is accessed through the medium of reading. This ranges from scientific knowledge in academic texts to general information about the world around us. Reading keeps us informed about everything that we need to know. This reflects the importance of reading not only in giving us knowledge about the world but also in paving the way to education and self-enlightenment as well (Oak 2012). Education researchers (e.g. Saengpakdeejit & Intaraprasert 2014; Alderson 2000; Brumfit 1980) indicate that the goal of reading is to comprehend what is read. As this study is about the relationship between reading, vocabulary, attitudes and academic performance, it is going to adopt a reading definition that focuses on the cognitive-linguistic skills and the socio-affective components involved in reading. In terms of the cognitive-linguistic aspect of reading, Pretorius and Lephalala (2011, 13) identify four main components namely; decoding (i.e. deciphering the letters that make up words), comprehension (i.e. an interaction in which readers construct

meaning based on their background and purposes for reading), response (i.e. how readers react to a texts as they read and the reactions may include excitement or boredom) and metacognition (i.e. the understanding of how reading comprehension occurs and the instructional strategies that facilitate reading comprehension). They point out that these components in turn comprise various sub-components and all are highly interrelated.

### **2.1.1 Definition of reading**

Reading is the construction of meaning from print material and it involves many decoding and comprehension processes (Day & Bamford 1998; Grabe 2009). Research indicates that decoding is a cognitive process that involves word recognition. It is further defined as a 'conscious and deliberate process of sounding out word parts such as single letters, letter strings, phonograms and syllables to produce a plausible pronunciation of a word that is not immediately recognized' (Koda 2004, 41). Shankweiler, Lundquist and Katz (1999) point out that decoding is one of the determinants for reading comprehension. This suggests that although decoding is necessary for comprehension, it is not enough to guarantee that a reader comprehends what he reads. Brownell (2013) opines that decoding is a skill that subsequently facilitates comprehension. For better text comprehension research shows that decoding must be accurately and automatically executed, as poorly developed decoding abilities affect fluency or the ease with which reading takes place.

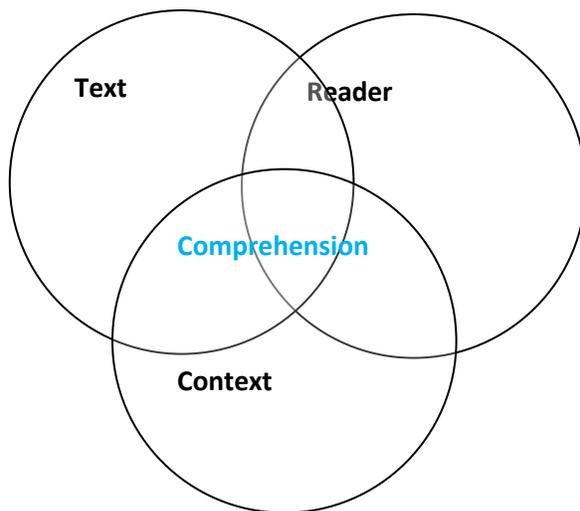
The social aspect of reading has to do with the influence an individual's social environment has on the intellectual accomplishment of reading. According to Pretorius (2010, in Pretorius and Lephalala 2011), the home where individuals live and their schools, community and larger socio-economic and political factors impact on the functions the reading serves, the attitudes and values attached to it and the way in which reading is developed in institutions charged with its instruction and development.

### **2.1.2 Comprehension - a complex skill**

Reading comprehension involves the integration of many specific linguistic and cognitive skills. It is defined by McLean (2014) and Lesaux, Kieffer, Faller and Kelly (2010) as a complex

meaning-making skill that, inter alia, requires higher level processing such as using the reader's existing knowledge, drawing on prior knowledge and making inferences about what is read. During reading, the reader interacts with written materials to understand what the writer means. Torgensen (2007) proposes three elements of comprehension; the reader, the text and the activity or purpose of reading. During the reading event, the reader brings certain cognitive-linguistic skills and background knowledge to the text. The text presents words, sentences and paragraphs and the reader needs to identify those words and extract meaning from them and connect the ideas given in the sentences to make sense of the paragraph or passage (Brownell 2013). The reading activity involves receiving incoming environmental sensory data (i.e. interaction with print), decoding that takes place in the working memory and building meaning through schemata-matching between the sensory data and prior knowledge (Chia & Poh 2009). The three elements involved in comprehension are represented in Figure 2.1 below.

**Figure 2.1: The three elements involved in comprehension**



The diagram above indicates that the three elements are closely intertwined: for comprehension to occur, the reader must engage with the text, understand the words used in the text and the conventions associated with that particular genre of text (e.g. a biology textbook versus the sports column in a newspaper) and also be familiar with the broader context of the text (e.g. when was it written, by whom, from which perspective, for what purpose).

In understanding text information, readers are thought to develop mental models or representations of meaning of the text ideas during the act of reading (Woolley 2011). Van Dijk and Kintsch (1983) point out that there are two classes of mental models at play during reading. These are the text-based model and the situation-model which consist of what the text is perceived to be about. The text-based model is a mental representation of propositions of the text. Reading at a literal level has to do with the text-based model. The text-based model is a mental representation of the actual text discourse. According to Woolley (2011) 'skilled readers normally develop a text-based model. This model incorporates propositions extracted from the reading of successive sentences that are sometimes supplemented by inferences that are necessary to make the text more coherent'.

Unlike decoding which involves lower level processing, identifying letters and recognizing words, reading comprehension requires higher level processing such as drawing on prior-knowledge, making inferences and resolving structural and semantic ambiguities while reading (Lesaux, Kieffer, Faller & Kelly 2010; Pretorius 2012). Other than bringing their background knowledge to the reading process, learners also need to know the words they encounter as they read. However, knowing the words in a text is not enough to ensure that one understands what they read. There are other aspects of comprehension that learners need to comprehend texts. Pretorius (2012) posits that in the process of reading, learners must be able to resolve anaphors across sentences and paragraphs, make inferences, identify text macrostructures within different genres and use background knowledge to make sense of texts. This gives them a situation model of a text. Similarly, Maria (1990) defines comprehension as a holistic process of constructing meaning from written texts through the interaction of knowledge readers bring to the text, word recognition ability, word knowledge and knowledge of linguistic conventions.

Richards and Schmidt (2002), Woolley (2011) and Chia (1996) identify four levels of comprehension namely; the literal level, inferential level, evaluative level and appreciative level. These comprehension levels are also used in the Progress in International Reading Literacy Study (PIRLS). For the current study it is important to discuss the four levels of comprehension because the reading test that will be used to collect data in this study assesses

comprehension at all four levels. The sections below discuss the four levels of text comprehension.

#### **2.1.2.1. Literal level**

Literal comprehension refers to an understanding of the straightforward meaning ‘or what is actually stated’ in the text (Day 2005; Hammond 2010). This could include vocabulary, facts and dates. Questions of literal comprehension can be answered directly from the text without the need to read between the lines. It is the type of comprehension that tests the basic meaning of a text. For example, if a text says ‘*Jane looked at her new broom with admiration, she took it and swept the living room clean*’, the literal meaning here is that Jane has a new broom. Learners can get this clearly stated meaning without scratching their heads. However, it is necessary for learners to mature beyond this level if they are to get a deeper meaning of what they read and be able to comprehend texts in a more nuanced and perceptive way.

#### **2.1.2.2 Inferential level**

This is a level of text comprehension where learners go beyond a mere understanding of a text and reach a general understanding of what is implied. According to Seiyod (2009) ‘inferential comprehension is when readers make predictions on what is not clearly stated in the text’. This level of comprehension is associated with reading between the lines. At this level the learner builds understanding of what is read by using the facts presented to read between the lines to get a true meaning of what was meant for understanding (Lin 2010). For example, that Jane liked her new broom is an inference that can be made from ‘Jane looked at her new broom with admiration’. Inferential comprehension thus involves drawing conclusions among bits of information that are not explicitly stated. This level requires making use of background knowledge of what is read (together with the literal information) to aid comprehension. The following sentences show how inferential comprehension works:

1. *The floor was wet; the girl walked cautiously.*
2. *The girl walked cautiously because the floor was wet and she did not want to slip and fall.*

To understand the first sentence involves drawing a conclusion about the relationship between a wet surface and walking carefully, which in turn relies on background knowledge about the world. The second sentence involves low level inferencing because the conjunctive '*because*' explicitly signals the causal relation. The implication is that walking cautiously helps prevent one slipping and falling on a wet floor, and the added part of the sentence makes the reasons explicit.

To process meaning at the inferential level, learners need to use a situation-based model. Kintsch (1998) explains that the situation-based model consists of what the text is perceived to be about. The situation-based model includes elaborative inferences that integrate prior knowledge with text based information. Unlike the text-based model, the situation-model does not normally retain the verbatim text information but supports a more flexible knowledge structure that can enable the integration of both visual and verbal representations (Snow 2002; Stull & Mayer 2007). Woolley (2011) opines that in constructing a situation-model, the reader needs to infer meanings that are often implied by drawing from their existing background knowledge. The assumption is that the main difference between text-based and situation-models is inference making. The text-based model is inferentially light while the situation-model is inferentially dense.

### **2.1.2.3 Evaluative**

Evaluative comprehension is the third level of comprehension and it is at a deeper level in comparison to literal and inferential comprehension. Lin (2010, 154) points out that 'evaluative comprehension involves critical reading where information and ideas are evaluated'. Evaluative comprehension also includes integration of chunks of information across texts to get a bigger picture. It occurs when readers use critical thinking to make judgment about what was read in a text and at this level, learners compare what they read with their background knowledge and values (Seiyod 2009). It is the type of comprehension that seeks a reader's opinion. For example, to achieve evaluative understanding while reading a text, a reader asks questions such as 'Why? Do I agree with it?' While inferential comprehension is associated with reading between the lines, evaluative comprehension involves reading beyond the lines. Seiyod (2009)

posits that evaluative comprehension occurs when readers compare information with their own background knowledge and values. At the evaluative level students may use their opinion as it relates to the subject matter. The level of understanding at the evaluative level is measured by the learners' ability to translate meaning of a text to their own experiences.

#### **2.1.2.4 Appreciative level**

Another deeper level of understanding is appreciative comprehension. It requires a personal response to a text and the reader responds to the text or story based on personal reaction and reflection. At this level the reader also responds to the author's purpose (Araujo & Costa 2012). According to Chia (1996), 'appreciative comprehension occurs when readers engage with a text and get an emotional response from the text'. This suggests that the appreciative level involves the students' feelings towards the material read and it is considered more abstract than any of the other levels because a readers' personality and likes or dislikes can affect comprehension at this level. Lin (2010) suggests that reading or comprehending at the appreciative level is done to gain an emotional or valued kind of response from a passage. This kind of reading is especially important when reading literature or poetry, for example, learners may give their feelings and personal responses in the Macbeth's merciless killing of their visitor, King Duncan in the play 'Macbeth'. It is important for learners to go through all four levels of comprehension if they are to read with total understanding and enjoy what they read.

In conclusion, high school reading, which is the focus of this study, needs highly developed decoding and comprehension skills. In addition, texts at high school level use academic words or low frequency words (Corson 1997) which are semantically opaque, (to be discussed in more detail in § 2.2.3). Many learners from various cultural backgrounds do not always get exposed to these words at school or outside school. As a result, it becomes difficult for them to understand texts with this academic language. Contrary to the early stages of learning to read where children learn the alphabetic principle and letter sound relationships, from about Grade 4 onwards reading should be well enough developed that it is fast and accurate and can become a tool for learning (Pretorius 2012). From Grade 4 onwards learners start being exposed to texts with unfamiliar content and low frequency words. By the time learners enter

high school they need to develop critical reading and thinking skills to be able to read and appreciate literature and to engage critically with any text they read. To understand texts at high school level, learners need to be able to process information at the evaluative and appreciative level as these levels are important for developing critical skills in today's world. This study assessed comprehension at the literal, inferential and evaluative levels. This is because the Cambridge reading test used did not assess comprehension at the appreciative level.

### **2.1.3 Response**

The third component of reading identified by Pretorius and Lephala (2011) is response. Response relates to how a reader reacts to a text and engages with it as s/he reads it. Pretorius and Lephala point out that readers' responses to a text are closely tied up with their affective domain, their feelings, attitudes, perceptions and values. The issue of learner response to a text is important for the current study as it investigates the relationship between reading, vocabulary, reading attitudes and habits, and academic performance. The issue of 'response' sheds some light on how learner attitude affects current reading done by the learners and how it affects reading they would do in future. Research posits that the more positive the initial reading attitude is, the more likely a reader will initiate an act of reading (McTavish 2008; Pretorius & Lephala 2011).

If learners struggle in their reading, they are likely to respond negatively to reading tasks. Once the response is negative, the act of reading is affected and the reader fails to enjoy the text read, and is unlikely to engage in reading activities voluntarily. This aspect is to be discussed again in § 2.4.

### **2.1.4 Metacognition**

The fourth component of reading identified by Pretorius and Lephala (2011) is metacognition. Metacognition is about awareness and regulation and it can be applied to any component of reading. It involves the ability to reflect on language and thinking and to act on them when required. Readers also use metacognition to monitor their comprehension, to repair failed

comprehension and to distribute attentional resources (McTavish 2008; Pretorius & Lephala 2011). When applied to the field of reading, the concept of metacognition contributes to a constructivist understanding of how reading comprehension occurs (Tracy & Morrow 2006). McTavish (2008) points out that in the constructivist theory, when people learn something new, they bring to the reading situation all their background knowledge and current mental patterns.

Metacognitive theory also sheds light on how proficient readers mentally engage with the text during reading. Baker and Brown (1984) opine that proficient readers employ a number of metacognitive strategies during reading, such as being aware when meaning breaks down and adopting repair strategies such as rereading, slowing down or looking up word definitions to assist them understand a text. Pressley (2000) identifies other metacognitive processes that may assist proficient readers to comprehend what they read. Among these are making associations to ideas present, making predictions about what is coming up in the text or revising prior-knowledge that is inconsistent with ideas in the text.

### **2.1.5 Research findings on comprehension**

There is not much local research on reading comprehension in Swaziland and in the African context. Some large scale systematic research undertaken at national level by different countries indicate that reading comprehension levels are not very high among a number of African students.

Lukhele (2009) set up a small scale study where she explored if there were significant relationships between Swaziland's college students reading attitudes, access to leisure reading resources, exposure to print based materials, reading habits, vocabulary knowledge, L1 and L2 reading, academic performance and reading ability. Her study showed that there were significant relationships between access to leisure reading resources, vocabulary knowledge, and academic performance and reading ability. The study returned a null hypothesis on the relationship between reading attitudes, exposure to print materials, L1 and L2 reading, reading habits and reading ability. It also returned a null hypothesis on the differences between the first year and third year college students' vocabulary and reading skills. This signifies that there was

not much growth happening across the three years of study probably because at each level the teacher trainees did not improve their reading endeavors.

South Africa and Swaziland participated in cross-national research studies that tested learner's reading comprehension ability. South Africa participated in the Progress in International Reading Literacy Study (PIRLS) in 2006 and again in 2011. There were forty countries that participated in PIRLS 2006, which concentrates specifically on reading comprehension. The PIRLS 2006 tests were conducted in all 11 official South African languages with Grade 4 learners completing the reading test in the language in which they had done their foundation schooling (Pretorius & Lephala 2011). The PIRLS 2006 tested four aspects of comprehension. Those were the readers' ability to:

- retrieve literal information from a text
- make straightforward inferences from information given in a text
- integrate ideas and information across a text
- examine and evaluate the text.

In the 2006 PIRLS survey Pretorius and Lephala (2011) point out that the top performing countries were the Russian Federation, Hong Kong and Singapore. Among the participating countries, South Africa came last. The results of the PIRLS indicated that South African learners have a reading problem irrespective of the language in which they read (ibid). The results also showed that the Grade 4s who did the reading test in English, most of whom were English second language users, outperformed those who did the test in their African languages. This signifies that language is not an issue that can affect learner performance but what is needed is for learner's reading ability to improve no matter the language they speak. Pretorius and Lephala (2011) state that the international norm in the PIRLS was that 94% of learners could answer questions requiring retrieval of explicitly stated information. In contrast, South Africa only had 12% of the Grade 4 learners who could answer questions at the literal level. This indicated serious reading problems.

Swaziland also participated in two large scale cross-national research studies of the quality of Education that were conducted by the Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ). Ten countries from Southern and Eastern Africa participated in the research study. This research study assessed literacy and numeracy among Grade 6 learners. From Swaziland learners who participated in the study were taken from all the four geographic regions shown in Chapter 1 (SACMEQ 2011). This large-scale study was conducted between 2000 and 2007 and it was designed by the SACMEQ Assembly of Ministers of Education. The SACMEQ Assembly emphasized that the planning of improvements in the quality of education required better indicators of the literacy and numeracy skills that were acquired by learners as they moved through the basic cycles of primary education. They interpreted the concept of 'literacy' as reading comprehension skills that were transmitted through school language and reading instruction programs. They interpreted numeracy as numerical and mathematical reasoning skills that formed the core of school mathematics program.

The average reading and mathematical scores of Grade 6 pupils across the four regions of Swaziland were derived from SACMEQ reading and math tests that were administered in Swaziland to 3322 Grade 6 pupils from 170 schools for the SACMEQ project in the year 2000 and 4030 Grade 6 pupils in the year 2007. There were changes in performance in terms of average scores between 2000 and 2007. In both the two years of the study, the SACMEQ mean was placed at 500 (SACMEQ Policy Brief 2011).

For Swaziland as a whole, the mean score for reading increased by 19 points, from 530 points in the year 2000 to 549 points in 2007. For mathematics there was a more important improvement of 34 points in the national mean score, from 517 points in 2000 to 541 points in 2007. Even though the results show an improvement at national level for both reading and mathematics, there was still a minimal change in some regions. The SACMEQ Policy Brief (2011) highlights that the Lubombo and Hhohho region recorded minimal changes in the reading test and mathematics test.

The SACMEQ Policy Brief (2011) states that the research assessed eight competency levels of reading namely; pre-reading, emergent reading, basic reading, reading for meaning, interpretative reading, inferential reading, analytic reading and critical reading. Table 2.1 below shows the skills tested in each of the reading levels.

**Table 2.1: Skills/competency tested in each of the levels of reading.**

<b>Level</b>	<b>Description</b>	<b>Skill/competency</b>
1	Pre-reading	Matching words and pictures involving concepts and everyday objects.
2	Emergent reading	Matching words and pictures involving prepositions and abstract concepts.
3	Basic reading	Interpreting meaning (by matching words and phrases, completing sentences).
4	Reading for meaning	Reading to link and interpret information located in various parts of the text.
5	Interpretive reading	Interpreting information from various parts of the text in association with external information.
6	Inferential reading	Reading to combine information from various parts of the text so as to infer the writers response
7	Analytic reading	Locating information in longer texts (narrative, document or expository) in order to combine information from various parts of the text so as to infer the writers' personal beliefs.
8	Critical reading	Reading from various parts of the text so as to infer and evaluate what the write has assumed about the topic and characteristics of the reader.

These eight competence levels provided a more concrete analysis of what pupils could actually do. The majority of pupils in Swaziland reached competences associated with reading for meaning, interpretive or inferential reading (i.e. Levels 4-6). The participants could not reach a

level of analytic reading or critical reading. Even though the Swazi pupils could not reach these two levels, Swaziland performed relatively well in the study. Among the ten countries that participated in the study Swaziland was rated third, having obtained 34% in terms of higher order reading skills. Tanzania and Kenya were top performers in the study (Spaull 2012). Table 2.2 below shows the ranking of the ten countries that participated in SACMEQ 2007 in terms of high order reading skills.

**Table 2.2: Rating of the ten countries that participated in SACMEQ 2007.**

Country	Rating in terms of higher order reading skills %
1. Tanzania	52
2. Kenya	37
3. Swaziland	34
4. South Africa	26
5. Zimbabwe	25
6. Namibia	18
7. Uganda	13
8. Lesotho	9
9. Zambia	6
10. Malawi	2

Though the levels of achievement in the SACMEQ were good for the Grade 6 Swazi learners, there is a gap between Grade 6 and Form 5 (i.e. Grade 12), the focus of this study. Learners' reading ability seems to get poorer as they progress to high school in the Swazi state schools. As can be observed from the Examination Council of Swaziland report (2011), candidates perform poorly in the reading tests deemed to be at their grade level. Their level of comprehension seems to occur mainly at the literal level. There are many factors which could be responsible for this decline, one of which could be the neglect of reading in the country's public schools, a possible variable that will be examined in Chapter 4 of this study. The suggestion by Pretorius and Lephalala (2011) that reading needs to be a central school activity and it needs to

be taught well and be meaningful is worth adopting for Swaziland's state schools. This is because the Swaziland Examination Council posts yearly comments that the low performance for most Form 5 learners in the country is an indication that teachers must be well informed on how to teach comprehension and have them do away with the belief that if learners can decode then they can comprehend what they read.

In contrast to the large scale studies referred to above, Lukhele (2009) undertook a small scale study of teacher trainees in Swaziland where she explored relationships between reading attitudes, reading ability and academic performance. She found that the teacher trainees had weak reading ability and that they had not reached mastery of the basic high frequency words (2000 – 3000 word levels) and they also had poor knowledge of common academic words. According to Staehr (2008), a student's mastery of a word level should be evidenced by a score in the region of 85% and above. Lukhele (2009) found that the Swazi teacher trainees read English texts with difficulty due to their low vocabulary repertoire. Their weak reading ability was quite disturbing as they were at a stage of training where they would soon graduate to teach learners in various schools. Drawing from Lukhele study and findings, one questions the teacher's readiness and ability to effectively teach reading comprehension to learners.

On another note, several studies indicate that vocabulary knowledge is a prerequisite component of successful reading (Goya 2012; Ahmad 2011; Mokhtar 2010; Zunshine 2013). The section that follows presents the literature that discusses the importance of vocabulary for reading comprehension.

## **2.2 Vocabulary knowledge**

Vocabulary knowledge plays an important role in reading comprehension. Before we can examine this role, it is important to clarify what vocabulary knowledge entails, specifically in relation to second language vocabulary. In this section I unpack this notion in terms of what it means to know words, the difference between receptive and productive vocabulary, the relation between reading and vocabulary knowledge as well as incidental vocabulary learning and explicit vocabulary learning.

### 2.2.1 Knowing words

Research shows that word knowledge is more complex than the seemingly simple question *what does it mean to know words?* Nation (2010, 47) defines word knowledge as ‘the ability to recognize the spoken and written form of a word as well as its meaning’. However, some scholars have argued that this definition of word knowledge is insufficient as it implies that form and meaning are separate aspects of vocabulary. As stated earlier, word knowledge involves more than just the link between meaning and form (Laufer, Elder, Hill & Congdon 2004). Pignot-Shahov (2012, 37) highlights that ‘knowing a word is being able to recognize it and it has to do with the receptive aspect of word knowledge’.

Besides recognizing a word, learners must also be able to use it correctly in discourse and be familiar with its nuances in meaning, e.g. *a sharp light, to light a fire, a light wind, a light touch, a lightweight, lite cheese, etc.* A common challenge that I have observed in my ten years teaching career among most high school learners in Swaziland is that they may recognize words in print, especially the low frequency words, but fail to use them correctly in discourse. In other words, they may have receptive but not productive knowledge of many words (this will be discussed in more detail later in § 2.2.2). The failure to use the ‘known’ words correctly indicates lack of confidence in their ability to use the ‘known’ words in discourse. In such cases, Laufer and Nation (1999, 37) point out that if learners lack confidence in using words they think they know, that reflects imperfect knowledge of the words. Research suggests that learners must have free productive ability of words, which is the ability to use words appropriately and in a spontaneous manner.

Research studies (Nation 2001; Henriksen 1999; Laufer & Goldstein 2004) have put forth several views on what word knowledge entails. For Nation (2001), word knowledge includes knowledge of form, knowledge of meaning and knowledge of use. He emphasizes that learners should not just have a controlled productive ability of words, (referring to a situation where learners use a word when compelled to do so, e.g. in a modified cloze test), but they must have free productive ability as well. Nation (2001) further divides knowledge of form into spoken, written and word parts. He also explains that knowledge of meaning can cover the literal and

deeper meaning of a word, while knowledge of use involves knowing how a word can be used in both spoken and written discourse. On the other hand, for Henriksen (1999) lexical knowledge is categorized into three components namely: partial to precise, shallow to deep, and receptive to productive knowledge. The three dimensions given by Henriksen (1999) will be discussed in detail later under vocabulary breadth and vocabulary depth.

An additional component of word knowledge known as automaticity or fluency has been suggested by Laufer and Goldstein (2004, 401). Fluency is a necessary level of comfort that learners need to establish to construct meaning from a text. Schmitt (2010) describes fluency as the adequate recognition or comprehension speed when reading and the adequate retrieval speed when writing or speaking. Pretorius (2012, 79) points out that unlike dysfluent readers who read in a slow and ponderous way, fluent readers read fast, accurately and with appropriate intonation; they have passed beyond 'learning to read' to 'reading to learn', where they can now use reading as an effective learning tool. Fluency is therefore a stage that learners must strive to get to, to be able to read with understanding.

Similar to the views raised by Nation (2001) and Henriksen (1999) on word knowledge, Harmer (1992, 58) points out that knowing a word means that the learner knows the meaning of the word, knows how the word is used, has information about the word and also knows the grammatical aspect of the word, e.g. its part of speech, such as noun (*composition*) or verb (*compose*). Harmer (1992) highlights that for a learner to be said to know a word, his or her knowledge must go beyond the dictionary meaning of that particular word. The learner must be able to draw meaning from the context in which the word is used. For a thorough knowledge of words, learners also need to know that word meaning also involves sense relations. Sense relations entail relationships between meanings of words in either their similarity or contrast in a language such as synonyms, antonyms, hyponyms (i.e. whole part relations such as *vehicles – car, truck, taxi*).

Another category involved in knowing a word as identified by Harmer (1992) is word use. In this category learners must know how the word is used as words can be used in many ways, and some of those uses can either be idiomatic or metaphoric. Idioms refer to a group of words

with a special meaning, different from the meanings of the individual words, for example *to be taken to the cleaners* is an idiom meaning to lose all one's money, to be ruined. A large number of words are also used metaphorically, and 'stand for' something other than their literal meaning. For example, the expression '*He is cold toward me*' does not necessarily mean the person is physically feeling cold but that he is behaving a bit strangely to me or ignoring me. Again, the expression '*He is a lion*' does not mean the person is such an animal but implies that the person is fierce or brave. So if a learner is able to identify these deeper meanings, one would say such a learner has knowledge of word use. Knowledge of word use also covers word collocations (e.g. words such as *picnic, basket, a fine day, folding chairs, park, garden*, may collocate together in the context of going on a picnic) and register (*a cool dude* versus *a nice man*). Learners also need to know or identify meaning as conveyed by word association or be in a position to see if the word is used formally or informally as determined by the audience.

Lastly, word information and word grammar are other aspects involved in knowing words. Harmer (1992) points out that learners must know the part of speech assumed by the word and be able to pronounce and spell the word correctly from a group of somewhat similar words. Learner's knowledge of words must also cover the grammatical position aspect of the word. This implies that by merely looking at the word in question, a learner who knows a word must be able to tell whether it is a noun, verb or adjective, e.g. *decision, decide, and decisive*. Table 2.3 on the next page summarizes what Harmer (1992) believes is involved in knowing words as explained above.

A study by Szudarski and Carter 2016 investigated L2 learners' acquisition of verb–noun and adjective–noun collocations. They worked with 18-year old Polish learners of ESL, and looked at the effect of input flood versus input flood with enhancements on the acquisition of word collocations. The participants were Polish L1 speakers and they had studied English for at least six years. To determine the participants' lexical knowledge, a Vocabulary Levels Test (VLT) was administered. As the study included two different types of collocations, separate measures tapping into the verb – noun and adjective – noun combinations were included and participants' collocational knowledge was measured by means of a battery of five tests.

Findings in this study suggested that input flood combined with input enhancement led to the improvement of L2 learners' results at the level of form recall and form recognition. The findings also appear to show that acquiring L2 collocation knowledge is a complex process that involves an interaction of factors such as typographical salience of input, frequency of encounters and specific aspects of collocational competence.

Unlike the study by Szudarski and Carter (2016), the current study did not look at collocations or interventions per se, but it is still relevant to my study in that to determine word knowledge, it also used the VLT, the same research instrument used to measure learners' word knowledge in the current study. Similar to my study, Szudarski and Carter show the importance of reading in the acquisition of vocabulary and it also used ESL learners who were almost at the same age group as those used in the current study.

The section that follows shows that word knowledge does not end with knowing meanings of words, how words are used in discourse and their part of speech, it indicates that word knowledge can further be classified into receptive and productive vocabulary.

**Table 2.3: What is involved in knowing a word?**

Word	Meaning	<ul style="list-style-type: none"> <li>• Meaning in context</li> <li>• Sense relations</li> </ul>
	Word use	<ul style="list-style-type: none"> <li>• Metaphor and idioms</li> <li>• Collocations</li> <li>• Style and register</li> </ul>
	Word information	<ul style="list-style-type: none"> <li>• Part of speech</li> <li>• Prefixes and suffixes</li> <li>• Spelling &amp; pronunciation</li> </ul>
	Word grammar	<ul style="list-style-type: none"> <li>• Nouns</li> <li>• Verbs</li> <li>• Adjectives and adverbs</li> </ul>

### **2.2.2 Receptive and productive vocabulary**

Receptive and productive word knowledge is another way of classifying degrees of word knowledge (Laufer & Goldstein 2004). Receptive word knowledge can be explained as the ability to recognize a word in print and is also sometimes called passive word knowledge. On the other hand, productive vocabulary knowledge is identified as the ability to use a word correctly in discourse and is also referred to as active word knowledge. Webb (2005, 33) explains that ‘the majority of vocabulary is learned receptively through reading or listening’. Research indicates that a learner’s receptive vocabulary both in the first and second language is always larger than his productive vocabulary (Laufer & Paribakht 1997; Milton 2009). A possible reason for learners’ receptive vocabulary being larger than their productive vocabulary is the point raised by Webb (2005) where he argues that the type of learning—receptive or productive—affects the type and amount of knowledge gained. If words are learned receptively, then learners are likely to gain significantly more receptive knowledge, whereas productive learning leads to larger gains in productive knowledge and an increase in depth of word knowledge.

From a pedagogical point of view, Pignot-Shahov (2012,43) explains that ‘receptive word knowledge is about being able to understand a word in its written and spoken form while productive word knowledge refers to being able to use a word correctly in written texts or speech’. As this study focuses on reading, attitudes, vocabulary and academic performance, the issue of how much vocabulary and what sorts of words learners need to know to comprehend what they read should be addressed. Research studies have shown strong correlations between receptive vocabulary size and reading tests, ranging from 0.50 to 0.85 with learners from different proficiency levels (Henriksen 2004, cited in Pignot-Shahov 2012, 10). However, the case may be different between productive vocabulary size and reading tests. Webb (2005) points out that receptive vocabulary learning occurs through reading or listening and productive vocabulary involves writing tasks. The current study used the controlled productive vocabulary test to find out how much vocabulary has been learnt and internalized.

For children to read texts and really gain understanding from what they read they need to have a large vocabulary. Biemiller (2012) points out that word meanings known by children are determined by the size of their vocabulary, and the more words children know at an early age, the more likely they are to perform well in reading comprehension later. Biemiller (2012) further highlights that by Grade 3, the greatest limitation for reading comprehension and academic achievement is a limited vocabulary.

Research has shown that there is a continuum at which receptive word knowledge becomes productive knowledge. Schmitt (2010) points out that as learners read more and become more familiar with the contexts in which words occur, their receptive knowledge gradually moves towards productive mastery. Since receptive vocabulary determines success in reading, researchers have sought to establish the size of receptive vocabulary needed by learners to read and understand authentic texts. Several studies have been conducted on the approximate number of words one needs to know to obtain adequate reading comprehension. In earlier studies, Laufer (1989) indicated that a lexical coverage of 95% would be sufficient for adequate reading comprehension. Later, Hu and Nation (2000, in Staehr 2008, 140) pointed out that learners need to know around 98% of word tokens in texts. This kind of lexical coverage is believed to aid comprehension because it gives learners a lexical basis for potentially inferring the meaning of unknown words in a text. Nation (2006) suggests that a vocabulary of 8000-9000 word families is needed to read a range of authentic texts. A word family is typically defined as the base word plus its inflections and most important derivational variants. Even though there is no consensus as to which derivations should be included in a word family, the following are examples of a word family: *criminal*, *crime*, *criminalize* and *criminalized*. It is also assumed that if one knows the meaning of one of these words (e.g. *crime*), one can work out the meaning of related forms, e.g. *criminal*—something to do with crime.

Research has also shown that the frequency factor plays a key role in productive and receptive vocabulary knowledge. It is believed that the more frequently occurring words in texts are learnt more easily because learners meet them quite often as they read. Staehr (2008, 147) highlights that for learners to understand what they read, they must know the 2000 most

frequent word families. The 2000-word level represents words that occur frequently in texts. To perform above average in reading tests, Nation (2010,15) points out that learners must know the 2000 most frequent words in English as the 2000-word level is enough to cover 80% of a text and such coverage is likely to bring about some comprehension of a text. Familiarity with the 2000-word level is also advisable for learners because this level is thought to represent some sort of probabilistic vocabulary threshold level above which learners will perform adequately in reading tests (Staehr 2008, 147). However, research opines that for reading advanced text, learners need to have knowledge of the words that are found in academic texts. Knowledge of the various word levels is important for the current study because the vocabulary levels test, one of the research instruments that will be used to collect data, will test participant's vocabulary knowledge at the 2000-, 3000-, 5000-, University Word List (UWL), and 10 000-word levels. These levels will be discussed in more detail in § 2.2.3.

Qian (2002) opines that word knowledge is not only classified under receptive and productive vocabulary, but it also focuses on how many words learners know and how well they know those words. This aspect of word knowledge is discussed next.

### **2.2.3 Breadth of vocabulary**

Pignot-Shahov (2012) defines vocabulary breadth as the number of words with which a person is familiar. It is also referred to as the size of one's vocabulary. As indicated above, research seems to suggest that for adequate comprehension of texts, learners need to know a certain number of words. Working on the list of word frequency developed by West in 1953 and later refined by Nation (1997), five main categories of words are identified according to their frequency levels (Staehr 2008). These are the 2000-, 3000-, 5000-, the 10 000-word level and the university word list.

According to Nation (2010, 15) and Staehr (2008), the 2000 – 3000 word levels are categorized as high frequency because words in this group occur most often in texts and in spoken discourse. He advises that learners must know all the high frequency words if they are to read texts with understanding. Staehr (2008) further points out that mastery of the 2000 – 3000 word families gives learners 95% text coverage. However, that is not enough for text

comprehension as knowledge of the high frequency words is sufficient for basic interpersonal communication skills. As stated in Pretorius and Bohlmann (2003), good readers typically have high vocabulary levels, especially words at the low frequency levels and academic words. To read texts with understanding, learners need knowledge of words at the 5000-level, UWL and 10 000-word levels.

Research has shown that the vocabulary breadth of learners must include all the high frequency words and teachers must teach these as soon as possible and teach them explicitly to learners because they are always encountered in academic texts. However, to succeed academically and to be able to read what Hirsh and Nation(1992) call unsimplified texts, learners need to go beyond knowing the high frequency words and have knowledge of the different kinds of low frequency words that occur (Corson 1997). Nation & Hirsh (1992) indicate that knowledge of the low frequency words at the 5000-word level, for example, constitutes less frequently used vocabulary which is specialized in academic language and provides learners with 98%-99% of text coverage, while the high frequency words cover 80% of the text. Staehr (2008) also explains that the 10 000-word level has many low frequency words that are highly specialized in academic language. The low frequency words do not occur often in spoken language but are encountered in written language, e.g. fiction and non-fiction genres, such as newspapers and academic texts.

According to Corson (1997) most native speakers of English begin to encounter low frequency and academic words in quantity in their upper primary school reading and in the formal secondary school setting. The use of the low frequency words' in literature or textbooks, rather than in conversation, restricts people's access to them. So if one does not read, one cannot encounter and learn such words. Corson further points out that to be literate it is not enough to know the low frequency words; one must also participate in the discourse of some textual community to be familiar with them.

There are a number of ways that can be used to measure vocabulary breadth in tests. According to Pignot-Shavov (2012), vocabulary breadth can be measured using word tokens, types, lemmas and word families. Tokens correspond to the number of words in a spoken or

written text irrespective of what kind of word they are, e.g. *have, has, had* are all different tokens of the word type 'have'. A lemma consists of a headword and some of its inflected reduced forms, e.g. *jump – jumped, jumps, jumping*. Nation (2010) points out that it is based on the psycholinguistic finding that the mind stores the base form of the word. Schmitt (2010) points out that word families are also used to measure vocabulary breadth. Word families are similar to lemmas and they also include all words related to the headword regardless of their word class. Examples of word families could be words such as *stealth, stealthily* and *steal, stole*. According to Schmitt (2010), lemmas tend to be a better unit than word families, tokens or types because they seem straight forward and are a useful unit for counting both productive and receptive items.

For the current study, vocabulary breadth will be measured using the active version of the Vocabulary Levels Test. This test has the five categories of word levels namely; the 2000-, the 3000-, the 5000-, the University Word List and the 10 000-word level. The mastery level for these word levels is 85%. In each of these vocabulary levels learners are expected to complete the required words in a given sentence. It is a modified cloze test, i.e. each of the required words has the first one or two letters given to give a clue to the learner about the word.

#### **2.2.4 Depth of vocabulary**

Depth of vocabulary is defined as how well a learner knows a word (Ho & Lien 2011, 81). While breadth of vocabulary knowledge focuses on the quantity of words known, depth of vocabulary is viewed as knowledge about the quality of words. The word 'quality' emphasizes thorough knowledge of words. Shen (2008, 136) and Kian, Mehrpour and Razmjoo (2011, 99) point out that depth of vocabulary goes deeper than breadth of vocabulary knowledge. Learners need to know that a word can refer to different things depending on the context in which it has been used. If a learner knows a word well, he or she knows how the word is pronounced, spelled and also knows its meaning. For example, deep word knowledge enables a learner to understand that the word 'bank' used in the following sentences refers to different things due to the context in which it has been used.

- (a) We went to the bank to withdraw money.*
- (b) He sat by the river bank all day.*
- (c) The sun disappeared behind a bank of clouds.*
- (d) The plane banked steeply to the right.*

Even though the word 'bank' is used as a noun in the first three sentences, the context in which it is used gives different meanings. In the first sentence it refers to an organization that offers money to people while in the second sentence it refers to the sides of a river. In the third sentence 'bank' is again used as a noun and refers to a mass of clouds while in the fourth sentence it is used as a verb and refers to how a plane turns in the air. So if learners have deeper knowledge of the word 'bank' used in the four sentences above, they can infer from the context in which it is used to get its meaning and that works to the advantage of learners because it increases their fluency during reading and fluency aids comprehension. Nation (2001) opines that for adequate reading comprehension, it is not enough for learners to have a large vocabulary size but they must also know a fair amount about the words they have. It is believed that deep word knowledge improves reading ability because it promotes the speed and automaticity with which words can be accessed and activated. According to Staehr (2008), when teachers teach the most frequent words in the second language, their focus should not only be on the link between the form and meaning of words but also include other aspects such as word parts, collocation, and synonym and register constraints, i.e. in which formal or informal contexts it is appropriate to use a certain word.

There are different ways of assessing vocabulary depth but I will focus on only two here; the Word Associate Test and the Depth of Vocabulary Knowledge Measure. The Word Associate Test was a measure developed by Read (1990) to assess learners' vocabulary depth in terms of a format of developed word association. For example, the Word Associate Test was refined by Qian (1998) into a depth vocabulary measure referred to as the Depth of Vocabulary Knowledge Measure (DVKM). This latter test was administered to 191 English-major undergraduates at Ming Chauan University in Taiwan. The participants had learned English for six years before participating in the study and all of them had had academic training in English

in the college for three months. The aim of the study was to investigate the participants' scores on the depth vocabulary knowledge and a reading comprehension test. The study was to determine if learners' depth of vocabulary knowledge correlated with their reading comprehension. The findings showed a difference between participants' performance on the (DVKM) and the Reading Comprehension Test (RCT). The ratio of correctness of the DVKM was 62% while the ratio of correctness of the RCT was 55%. Based on the participants scores, a significant positive correlation was found between their depth of vocabulary knowledge and their scores on the Reading Comprehension Test. These findings were in line with the previous research which indicated that learners with insufficient vocabulary knowledge may have poor reading comprehension ability.

Research findings suggest that it is important for learners not to overlook the importance of deeper knowledge of words if they are to perform above average in school tests. Learners must also know that words appear in contexts rather in isolation and, as a result, words take on different semantic interpretations in different contexts as demonstrated earlier through the word 'bank'. Ho and Lien (2011, 89) insist that teachers should emphasize the concept of depth vocabulary knowledge with much focus towards understanding both synonyms and collocations. Once learners have familiarized themselves with the multi-dimensional knowledge of words, an improvement in comprehension and reading speed is realized. Improved reading comprehension and reading speed are two of the areas believed to assist learners to maximize their performance at school (Shen 2008).

A study by Akbarian (2010) investigated the relationship between vocabulary size and depth for Iranian students of English for specific/academic purposes. It used 112 Iranian undergraduate learners studying at the University of Qom. The participants included 48 males and 64 females majoring in Physics, Mathematics and Electronic commerce. Two vocabulary measures were used in the study. These were Version 2 of the Vocabulary Levels Test (VLT) revised and validated by Schmitt et al. (2001) and the Word Associate Test. Each level of the VLT contained 30 items. The Word Associate Test measured three vocabulary elements: synonymy, polysemy

and collocation. The main finding of this study was that there was a strong positive relationship between vocabulary size and depth for Iranian English for academic purposes learners.

Though the current study focuses on vocabulary breadth and not depth, the research by Akbarian (2010) is relevant to this study because it looks at the relationship between vocabulary breadth and depth among ESL learners. Akbarian (2010) also used the VLT, the same instrument used to assess vocabulary in the current study.

### **2.2.5 Vocabulary learning**

Throughout our lives the majority of our vocabulary knowledge is learned receptively through reading or listening (Webb 2005). This section focuses on two main ways of learning/ acquiring vocabulary. These two main ways involve incidental vocabulary learning through exposure to oral and written forms of language, and explicit vocabulary learning, through explicit instruction and conscious awareness of specific words. The two constructs; 'incidental' and 'explicit' vocabulary learning are discussed below.

### **2.2.6 Incidental vocabulary learning**

Hulstijn (2001) defines incidental vocabulary learning as 'the learning of vocabulary as the by-product of any activity not explicitly geared to vocabulary learning'. This implies, for example, that while learners watch a TV programme or read a book they may find themselves picking up words that they did not set out to learn. Ellis (1994) states that incidental vocabulary learning is non-explicit in so far as it does not involve an explicit learning intention.

Incidental vocabulary learning takes place with native speakers and second language (L2) speakers alike. It comes from rich oral language experiences both at home and at school. Easy access to books around the learner environment also contributes to incidental vocabulary learning. Biemiller (2004) points out that on average, children from one year old to Grade 2 acquire approximately 860 root word meanings per year or 2.4 root words per day. Twenty five percent of children with the smallest vocabularies acquire approximately 1.6 root words a day which is approximately 4000 root words meanings but some acquire fewer meanings by the end of Grade 2. Biemiller stresses the importance of vocabulary in that vocabulary as assessed

in Grade 1 can predict more than 30% of Grade 11 reading comprehension. Biemiller (2004) further argues that if children learn root words, they can learn 3-4 words derived from roots. For example, from the word *look*, children can learn the words *looks*, *looking* and *looked*. It is estimated that (for L1 vocabulary development) from birth to Grade 1 about 16.5 root words are acquired incidentally per week and from Grades 3-6 about 19.2 words are acquired a week. Research suggests that Socio-economic status (SES) plays an important role in vocabulary acquisition. For example, Corson (1997) argues that middle class children tend to know more words than children from poor homes, because they are exposed to a richer linguistic environment.

The research on incidental vocabulary acquisition has verified the assumption that exposure to reading texts contributes to L2 and also L1 vocabulary growth, as all studies have found evidence of incidental vocabulary learning (Pigada & Schmitt 2006). However, for L2 learners to learn vocabulary incidentally they must have a certain level of vocabulary gained from explicit learning and this is why learning high frequency words quickly in an ESL programme is important (Schmitt 2000). Ellis (1994) points out that explicit vocabulary learning and incidental vocabulary learning definitions focus on the absence or presence of conscious operations or intentions as a crucial distinguishing factor.

Researchers (Huckin & Coady 1999) agree that except for the first few thousand most common words, the high frequency words, L2 vocabulary is predominantly acquired incidentally. According to Schmitt (2002) there are three conditions that need to be met for incidental vocabulary learning to occur with native speakers. Firstly, the unknown vocabulary should make up only a very small proportion of tokens in a text, preferably around 2%. This could be simplified to mean that there should be one unknown word in 50 words (Hugh & Nation 2000, in Schmitt 2002). Secondly, there should be a very large quantity of input, preferably one million tokens of words or more per year. In other words, there can be no incidental learning without constant exposure to input. Thirdly, learning can be increased if there is more deliberate attention to the unknown words. This can be done through drawing learner's attention to the unknown words as they occur in the texts (Schmitt 2002).

Research also shows that the issue of exposure is crucial in incidental vocabulary learning. Schmitt (2002) argues that incidental learning is cumulative and therefore vocabulary needs to be met a number of times to allow the learning of each word to become stronger and to enrich the knowledge of each word. According to Staehr (2008), learners must be exposed to a new word more than 6 times before they internalize that word. At high school level, the focus of this study, learners need to be reading in and out of school, beyond the level of graded readers. According to Schmitt (2002), graded readers are particularly helpful for learners in the beginning and intermediate stages as they best realize the three conditions stated above. For noticeable learning to occur, Nation and Wang (1999) estimate that L2 learners need to read at least one graded reader every two weeks in primary school.

A study by Horst (2010) conducted in Montreal investigated opportunities for incidental vocabulary acquisition in a 121,000-word corpus of teacher talk to advanced adult learners of English as a second language in a communicatively-oriented conversation class. In this study learners were only exposed to a teacher speech as the only source of L2 input for a 9-week session. The speech contained hundreds of words likely to have been unfamiliar to learners, but fewer were recycled the number of times research shows are needed for retention. Findings suggested that attending to teacher speech is an inefficient way of acquiring knowledge of the many frequent words learners need to know. The findings of this study seemed to show that communicatively-oriented ESL teacher talk offers little support for incidental vocabulary acquisition. This is because many words used frequently in writing are unlikely to be encountered in speech at all.

The study by Horst (2010) is relevant to the current study because it appears to point to the importance of written input for vocabulary acquisition, and it indicates the importance of reading to help learners perform well in reading tests and also perform well in the curriculum. This research is also relevant to my study because the current study investigates access to books. In Swaziland most high school learners are exposed to English mainly in the classroom. Such exposure offers them oral input, as they learn by listening to the teacher, which may not be enough for the learning and retention of unfamiliar words.

### 2.2.7 Explicit learning

Explicit learning is another way of learning vocabulary. Schmitt (2002) calls it deliberate vocabulary learning because the learner is conscious and aware of the learning that takes place. Explicit vocabulary learning can be done by both the teacher and the learner. The teacher can deliberately teach a new class of words or word strategies and the learner can deliberately focus on new words and try to learn them. For example, this can be done with the low frequency words which are not easy to master. Research seems to suggest that because of the difficulty in learning or developing the low frequency words, teachers must give learners strategies for learning those words. Laufer & Nation (1999, 36) highlight that the strategies for learning the low frequency words could be guessing meaning of words from the context, memorization techniques and procedures, morphological analysis (breaking words up into their constituent parts, e.g. the stem and prefixes or suffixes, such as *bio/ de/ grad/ able*) and learning the word parts. On the issue of word parts, learners can, for example, learn the word *photosynthesis* by looking at its component parts. This can be done by dividing the word into *photo*-which relates to light and *synthesize* which means to make or produce. The combination of the two parts of this word can give an idea that photosynthesis relates to how plants or leaves make their own food using light. Such word analysis could be an appropriate strategy for increasing one's vocabulary size regarding the low frequency words.

Schmitt (2002) opines that explicit vocabulary learning can be facilitated through deliberate vocabulary teaching. This kind of teaching can have three goals, namely (a) to result in well-established vocabulary learning, (b) to raise learners' awareness of particular words so that they are noticed when they are met again, and (c) to help learners gain strategies and systematic features of the language that will be of use in learning a large number of words.

Research indicates that explicit vocabulary teaching can take a variety of forms. These may include:

- pre-teaching of vocabulary before a language activity

- exercises that follow listening to or reading a text, such as matching words and definitions and creating word families, using word parts or semantic mapping
- self-combined vocabulary activities
- word detectives where learners report on words they have found
- collocations activities
- quickly dealing with words as they occur in a lesson.

Although research shows that vocabulary can be acquired/ learnt incidentally or explicitly (Hulstijn 2001; Ellis 1994 and Schmitt 2002), Rieder (2003) argues that many questions remain on how vocabulary is acquired and developed. Explicit vocabulary learning can be described as a situation where a learner chooses to focus on vocabulary during reading and to get the meaning of the words encountered. Kassel (1998) indicates that the explicit learning of vocabulary is a mere conscious operation where a reader makes and tests hypothesis in search for structure. As opposed to incidental learning, explicit vocabulary learning does not take place naturally but it involves a conscious effort from the learners. Schmitt (2000) identifies explicit vocabulary learning as the most comprehensive way of acquiring new vocabulary. He further explains that explicit learning is the most demanding way of learning vocabulary because it demands consciousness and intention to learn the specific words.

On the other hand, incidental vocabulary learning has been defined as learning of vocabulary which apparently takes place without a specific motive or specific formal instruction (Pigada & Schmitt 2006). It differs from explicit vocabulary learning because the latter involves consciousness or awareness of the learning that takes place while the former involves vocabulary learning which occurs without intention to learn the new words. Consequently, Rieder (2003) opines that the explicit learning of vocabulary is characterized by more conscious operation while the individual makes and tests hypothesis in search of structure. In the same vein, incidental vocabulary acquisition is described by Rieder (2003) as learning of vocabulary as a byproduct of any activity not explicitly geared to vocabulary learning. This is where reading for pleasure is suggested as one of the ways that facilitate incidental vocabulary acquisition. As

stated earlier, scholars agree that, except for the high frequency words, second language vocabulary is largely acquired incidentally (Huckin & Coady 1999). This again underlines the positive role reading plays in vocabulary development.

### **2.2.8 Reading and vocabulary knowledge**

The relationship between reading and vocabulary knowledge is one of mutual growth and influence, also referred to as a reciprocal relationship. Research highlights that as learners read more, their vocabulary expands and grows and that enables them to read more texts with ease, thereby facilitating comprehension. Similarly, the more they read the faster and more accurate their reading becomes, and this fluency helps to free up cognitive resources so that they can attend to meaning. To read texts with ease Kian et al. (2011) argue that learners' vocabulary should cover all the five word levels revised by Nation (1990). They point out that the 2000- and 3000-word levels include only high frequency words in English while the 5000-word family level is a boundary between the high frequency and low frequency levels. The 10 000-word level includes low frequency words and the university word list level contains specialized vocabulary needed for academic studies. So for effective text comprehension, especially at high school, readers must have developed in all these word levels.

Reading offers learners greater exposure to lexical items needed to read with understanding. Research indicates that knowing more words makes one a better reader (Ho & Lien 2011). This is because the more one reads, the higher the possibilities of meeting unknown words, and the greater the chances of improving or increasing one's receptive vocabulary. Bromley (2004) points out that children who lack a wide vocabulary fail to understand texts they read.

Research studies have shown a strong correlation between reading comprehension and vocabulary knowledge (Joshi & Aaron 2000; Gelderen, Schoonen, Gloopper, Hulstijn, Simis, Snellings & Stevens 2004). Joshi and Aaron (2000) administered a vocabulary and comprehension subtest of the Stanford Diagnostic Reading Test to 66 Grade 6 and 42 Grade 8 learners. The Stanford Diagnostic Reading Test is a standardized, group administered norm- and criterion-referenced test that uses a multiple choice format to measure vocabulary and reading

comprehension. The findings of this study showed a strong correlation of 0.63 in Grade 6 and 0.62 in Grade 8 between vocabulary and reading comprehension.

Another study by Gelderen et al. (2004) concurs with the findings of Joshi and Aaron (2000). Gelderen et al. (2004) administered tests of English vocabulary knowledge and reading comprehension to 397 Dutch students from Grade 8 to Grade 10 in secondary education. Their study also found a strong correlation of 0.63 between vocabulary and reading comprehension.

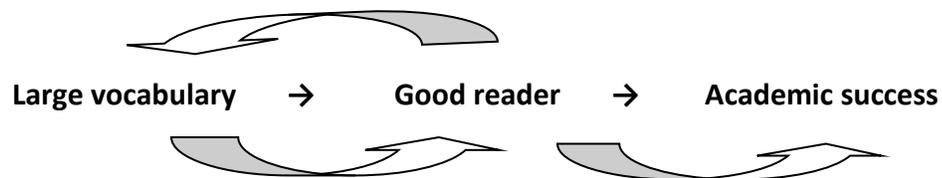
Day & Bamford (1998) point out that reading helps in the growth of a large sight vocabulary and a wide general vocabulary. Sight vocabulary is described as the words that readers can automatically recognize in print without having to use strategies to decode the words in question. The automatic recognition of words can be achieved by reading a great deal so that the words encountered in print form one's sight vocabulary. Reading a great deal also aids in the acquisition of general vocabulary knowledge. The development of general vocabulary knowledge is important during reading because it helps learners to comprehend what they read as they are not hindered by the unfamiliar words in the texts they read. Ho and Lien (2011, 78) opine that L2 learners should read many books so that they can build up a large vocabulary because the source of reading problems for foreign language and second language learners is difficulty in understanding the various unfamiliar words they meet when reading. Attention to the relationship between reading and vocabulary knowledge is drawn by Ho and Lien (2011) where they point out that students may comprehend better and read faster if their vocabulary knowledge can be improved. The relationship discussed above confirms the interdependency between having a large vocabulary and being a good reader.

Following the strong correlation found by researchers between reading and vocabulary knowledge, research suggests that if parents want their children to be successful at school, they must encourage them to read. This is because research seems to suggest that students who have a large vocabulary are usually good readers (Cunningham & Stanovich 2001). The importance of reading for vocabulary acquisition is conveyed in the belief that oral language is lexically impoverished compared to written language (ibid). For example, Cunningham and Stanovich (2001) point out that the average frequency of words in all samples of oral speech is

quite low, hovering in the 400-600 range of ranks. Many researchers (Hayes 1988; Hayes & Ahrens 1998; Stanovich 1986, cited in Cunningham & Stanovich 2001) are convinced that reading rather than oral language is the prime contributor to individual differences in children's vocabularies and that much vocabulary growth during a child's lifetime occurs indirectly through language exposure than through direct teaching. For effective vocabulary growth during reading, there is a need for readers to be exposed to words that they are not familiar with. Cunningham and Stanovich (2001) further point out that the acquisition of new words occur when an individual is exposed to words that are outside his current vocabulary and this happens more often while reading than while talking or watching TV.

The link between being a good reader and having a large vocabulary lies in that vocabulary is best acquired through reading widely because the more one reads, the more the number of words one meets and if these words are naturalized, then vocabulary occurs. As a result, comprehension barriers caused by insufficient vocabulary are removed. Reading extensively does not only empower learners to have adequate vocabulary but it also brings about academic success because as research points out, a student who is able to 'read to learn' and reads meaningfully is more likely to do well at school and pass exams than a student who is a weak reader. The relationship discussed above is illustrated in Figure 2.2, and further explored in the section below on academic performance.

**Figure 2.2: Interdependence of reading, vocabulary and academic success**



### 2.3 Academic performance

Research has shown that reading and vocabulary knowledge impact positively on academic performance. In this section I will first explain what academic performance means and then discuss the relation between vocabulary knowledge and academic performance.

### **2.3.1 Definition of academic performance**

Academic performance refers to the general or overall performance obtained by learners across all subjects studied in the school curriculum. Academic performance is reflected in the aggregate score obtained by adding the scores from the various subjects learnt at school and dividing the total score by the number of the subjects. Discussing the concept 'academic performance' is important for the current study as it will assess the Form 5 learners' performance using their general performance in the final exam. Generally in the Swazi system of education learners may obtain a below pass average, a pass average, a credit average or a distinction average. A below pass average is an average mark from 0 to 49%; a pass average is an average mark from 50% to 59%. An average mark of 60-79% is regarded as a credit average. Learners who obtain an average mark of 80 to 100% are said to have passed with distinction.

### **2.3.2 Reading and academic performance**

Students' reading ability is strongly linked to academic success. This is because for students to perform above average in the school tests, they must be able to read with understanding. Reading gives access to information at any time. Learners do not have to rely solely on the teacher for information. During leisure reading, skilled readers can read fast, over 300 words per minute and get more information instantly compared to relying on a lecture presented by a teacher over an hour. Stanovich (1986 cited in Lesaux et al., 2010, 197) points out that limited vocabulary knowledge is a potential source of reading comprehension difficulties, and difficulty in understanding what is read has been shown to impact negatively in school tests.

The reciprocal relationship and the interdependence between reading, vocabulary and academic performance is highlighted in Stahl (1999) who points out that a rich vocabulary comes from wide reading, and wide reading and a rich vocabulary are likely to lead to above average performance in reading tests. A student who reads a lot is more likely to know the meaning of a word like *volcano* and associated words like *earthquake*, *lava*, *smoke plume*, *pyroclastic flow* and *eruption* because such words will be encountered within a specific thematic context than a learner who is simply taught words in isolation in a lesson. Children who read a lot are building up knowledge of the world around them while they read – their

conceptual and declarative knowledge bases are growing with their word knowledge. Poor readers often lack adequate vocabulary to get meaning from what they read. Consequently, for such learners reading becomes difficult and tedious and that makes them unable or unwilling to read widely to encounter and learn more unfamiliar words. That contributes to what Stanovich (1986 in Pretorius & Currin 2010) refers to as Matthew effects, which is a situation that exaggerates individual differences over time, with the rich getting richer and the poor getting poorer. Research indicates that good readers read more and become better readers as they learn more words and become more skilled, while poorer readers read more slowly, read less, are exposed to fewer new words and eventually become poor readers because they did not read much. As a result, students who enter high school with poor or limited vocabulary become poorer and fall behind in the course of time.

There are several studies (Gottfried 1990; Agak 2012; Pretorius 2002; Horbec 2012) that show that reading has a positive impact on academic performance. For example, Agak (2012) analyzed results from the International Association for the Evaluation of Education Achievement Reading Literacy Test to examine the relation between reading and academic achievement among 14 year old students in Kenya. The study suggested that students who read much were more likely to do better on academic reading and other school subjects.

Another study by Horbec (2012) involving a small case study showed that reading had a positive impact on students' academic performance. The study had two high school participants who were intrinsically motivated and felt good about reading. The participants were engaged readers and they were allowed to select books of their own choice and read for pleasure. They read a variety of books for personal purposes. They were also extrinsically motivated to gather information and to glean new understanding from texts in order to learn to achieve academic success (ibid). As skilled readers, the two participants embedded strategic reading techniques and comprehension strategies that resulted in academic success.

However, there are also some dissenting views. Contrary to the studies that suggest that reading results in academic success, a study by Kelly and Wilson (2010) showed that avid readers are not necessarily successful at school. Participants in this study were middle and high

school students. Students in the study were part of a school district that had separate reading classes for those who did not attain higher than average scores on the state reading tests. Kelly and Wilson point out that their findings showed a disconnect between the students' reading practices and their school test scores. Contrary to the claim by Gottfried (1990) that avid readers excel academically, avid readers in the study by Kelly and Wilson (2010) did not experience consistent success in their test scores. Kelly and Wilson (2010) point out that the avid readers in their study did not excel academically because they limited themselves to reading preferred genres and read in a cocoon and did not 'come out of hiding' to realize their full potential. The failure of the avid readers to excel academically in their study may be due to the fact that being an avid reader does not always guarantee academic success. At times good readers may not be motivated to study academically and they may lack the zeal and persistence that is needed for studying the subjects taught in the curriculum. This highlights the importance of meaningful reading for academic achievement and the complementary role that a positive reading attitude could potentially play in learner's success. So as stated above, reading is a necessary condition for academic success but not sufficient, in that reading alone does not guarantee success. Other factors such as persistence, diligence and motivation to succeed are also important aspects.

#### **2.4 Reading attitudes**

McKenna, Kear and Ellsworth (1995) define attitudes as 'a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object'. This definition of attitudes is consonant with that given by Briggs (1987) and Stokman (1999) where they point out that reading attitudes are not just a stable disposition, they are acquired over time through direct and indirect experiences with reading. Research seems to suggest that the attitude construct has to do with feelings about reading harbored by the learner as a result of experiences they have had with reading (Partin & Gillespie 2002, 62). According to McKenna et al. (1995) the feelings related to reading cause the learner to approach or avoid a reading situation. Learners can either have positive or negative attitudes toward reading. It is the presence of positive attitudes, skill and the will to read that determines that a child reads and

continues to read. Briggs (1987) opines that a positive attitude is important in reading development as it produces a motivational stimulus that promotes and sustains learning. On the other hand, a negative attitude results in a lack of motivation and causes learners to avoid reading at all costs as they feel that reading may expose their lack of skill to read correctly. The attitude construct is relevant for the current study and participants' reading attitudes are assessed using a reading questionnaire based on the University of South Africa Literacy Unit and further adapted by Lukhele (2009).

#### **2.4.1 Formation of attitudes**

There are several factors or variables that lead to the development of reading attitudes among learners and the attitudes that are formed lead to a certain behavior with regards to reading. Hockenbury and Hockenbury (2007) explain that attitudes form as a result of experience. The experience could be a personal one or an experience obtained through observation. For example, if children do not have access to print resources due to poverty in their communities, they grow up not valuing reading. Schools must be sites of rich literacy exposure and role models so that children can gain access to books and have teachers who love and model reading so that they learn from them. Teachers must also have access to interesting story books to make sure that learners have positive reading experiences, especially in the early grades of schooling. If learners do not experience success during their reading, their confidence drops and they may start being apprehensive when it comes to reading. If their parents do not engage in reading or do not keep many books at home, children tend to attach less significance to reading. Wang (2000) opines that teachers should provide chances for children to experience success when reading as children's sense of success and confidence in reading is the first step for them to form a positive attitude toward reading.

Briggs (1987) points out that people are not born with specific attitudes. He confirms the view given earlier by pointing out that reading attitudes are developed as children become involved with people and their environment. Other than experiences, personal interests, taste and habits cause attitudes to evolve as children grow, mature and interact with others during pre-school days. This suggests that reading attitudes do not just mushroom at high school but they

can be developed early in a child's life due to experiences he went through. Ntuli and Pretorius (2005) indicate that attitudes towards reading can begin in infancy and be enhanced throughout childhood. Wang (2000) too points out that children's attitude can be formed and enhanced by specific experiences. For example, if children cannot get access to books, or if the books they read are not interesting, if their parents and teachers do not believe the children can read and the children themselves are not successful in their reading endeavours, the outcome would be a belief that reading is difficult, not important or boring. They will also believe that they cannot get anything from reading. This gradually leads to the formation of negative reading attitudes right from infancy and by the time such children reach high school a stable behaviour against reading has established. The path to the formation of reading attitudes can be briefly summarized in the diagram below.



This diagram shows that the reading experiences children have directly determine whether they read or not. It explains that if their reading experiences are minimal or negative, children tend to believe that reading is not important. Such a belief leads to the formation of negative attitudes which brings out a behaviour of avoidance when reading has to be done.

Research also suggests that attitudes are made up of an emotional component, a cognitive component, and a behavioral component (Hockenbury & Hockenbury 2007; Myers 1999; Smith & Mackie 2007). The emotional component has to do with how reading makes learners feel. It is where learners may ask themselves: *does reading lead to positive experiences, or does it make me feel discouraged?* If it leads to positive experiences and the learners possess the skill and the will to read, they are likely to enjoy reading and may even continue to read in and out of school. The cognitive component has to do with thoughts and beliefs about reading. In this component, if learners believe that reading is unrewarding or not beneficial, they are likely to stop reading. The behavioral component has to do with how the attitude influences learner behaviour. As stated in the diagram above, once learners have a specific belief about reading,

attitudes begin to form leading to a behaviour that may either cause the learners to enjoy reading or avoid it.

Dweck (2007) discusses two types of learner mind-set that may hinder or promote learning new or challenging concepts at school. These are the fixed mind-set and the growth mind-set. The fixed mind-set is where some students believe that their intellectual ability is a fixed trait and such learners tend to be excessively concerned with how smart they are (ibid), or alternatively they believe that they cannot do something, or that they are not 'clever enough'. During learning such learners seek tasks that will prove their intelligence and avoid those that might not (Dweck 2007).

In contrast, Dweck (2007) points out that students with a growth mind-set believe that their intellectual ability is something that they can develop through effort and education. During teaching and learning students with such a mind-set do not worry about how smart they will appear but they take on challenges and stick to them. In a brief contrast between the two types of mind-sets, Dweck (2007) points out that the fixed mind-set and growth mind-set create two different psychological worlds. While students with a fixed mind-set care first and foremost about how they will be judged and reject opportunities to learn if they might make mistakes, students with a growth mind-set care about learning and if they make a mistake, they correct it (Blackwell, Trzesniewski & Dweck 2007, in Dweck 2007). Students with a growth mind-set are more determined to learn in the face of failure. Instead of avoiding challenging topics, they escalate their efforts and seek new learning strategies. Therefore, in order for students to be motivated to learn and exercise their brains the more, teachers need to help them develop a growth mind-set. Such a mind-set can make learners understand that there is no substitute for hard work and determination at school.

Mathewson (1994) presents a model that shows a chain reaction between reading attitudes and the resultant behaviour, i.e. reading. The Mathewson model suggests that reading attitudes which include prevailing feelings about reading, action readiness for reading and

evaluative beliefs, influence one's intention to read and to continue reading. The intention to read in turn influences reading, which includes text selection, attention and strategy use.

The Mathewson model suggests that for learners to develop a reading behaviour, it is not enough for them to have positive reading attitudes, which is an internal factor, but they must also have the intention to read. External motivators such as availability of interesting books to read, having friends who value reading, whether they comprehend what they read or not, and the individual's emotional state also contribute to the decision to read. However, McKenna et al. (1995) highlight some limitations in the Mathewson model. One of its limitations is that its focus on the role of attitudes during specific acts of reading leaves long term effects on attitudes largely to implication. To construct a more conducive model with regards to long term development of reading attitudes, McKenna synthesized the work of Mathewson and adapted a view that attitude is largely affective in nature and that beliefs are causally related to it. The McKenna model identified three principal factors that influence attitude. These are: beliefs about the outcomes of reading in light of the judged desirability of those outcomes; beliefs about expectations of others in light of one's motivation to conform to those expectations; and the outcomes of specific incidents of reading. The current study follows the position taken by Mathewson where it is believed that learners' decision to read and to continue reading is not entirely dependent on their beliefs, feelings and behavioral intentions but that external motivators contribute to the decision to read and to continue reading.

#### **2.4.2 Attitudes and academic performance**

Research into reading attitudes posits that attitudes can have an impact not only on reading but also on vocabulary growth and academic achievement (Stokman 1999; Briggs 1987). Seitz (2010) argues that students who have negative reading attitudes do not enjoy reading and they fail to engage in reading. Consequently, they may develop a lifelong aversion to reading. Once learners are apprehensive or averse to reading, they are likely to read less and be exposed to little vocabulary which may hamper their comprehension of academic texts. Shen (2008) opines

that vocabulary which may be acquired through reading is a major prerequisite and causative factor in comprehension. Negative reading attitudes may not only cause learners to avoid reading but they may also exclude learners for access to rich sources of new knowledge, which in turn impacts negatively on their performance in the content subjects. Research indicates that negative reading attitudes cause learners to have poor study habits and low levels of reading comprehension. Cook (2006) reports that reading is a basic skill for learning and a foundational skill for academic success. If learners have a poor perception of themselves when it comes to reading, such an attitude will not only result in poor study skills but it will also affect their performance in the content subjects as learners also tend to be unwilling to study what is learnt at school.

Some scholars have found a positive albeit rather weak relationship between reading attitudes and academic performance (Bakar, Tarmizi, Mahyuddin, Elias, Luan & Ayub 2010; Sallabas 2008; Narmadha & Chamundeswari 2013). The study by Bakar et al. (2010) investigated the relationship between university students' reading attitudes and academic performance in Malaysia. The respondents were 1484 university students who were following the education, science, humanities, and agriculture and engineering programs. Data were collected by self-reported questionnaire on a sample, using a cluster sampling technique based on the different faculty of studies in the university. Results indicated a weak correlation between students attitude towards reading and academic achievement ( $r = 0.16$ ,  $p < 0.001$ ).

Another study by Sallabas (2008) investigated the relationship between positive reading attitudes, willingness to read and academic success among secondary school learners. Sallabas found a weak relationship between positive reading attitudes, reading comprehension and academic performance. In his study, 143 Iranian Grade 8 secondary students were given two informative and narrative texts together with multiple-choice questions. The questions were used to determine the degree of reading comprehension by students. The study also used a 20-itemed 'Attitude towards Reading Scale' to collect data. The attitude scale's Cronbach alpha coefficient was 0.86 and information about students' academic success was obtained through

data forms. After determining student's reading attitude scores and reading comprehension achievement, a correlation between reading attitudes, comprehension level and academic performance was tested. Findings indicated a weak correlation of 0.03 suggesting an almost non-existent relationship.

In another study, Narmadha and Chamundeswari (2013) investigated attitudes towards learning Science and academic achievement in Science among students at the secondary school level in India. Participants in this study were 422 students from secondary level in different systems of education, namely, state, matriculation and central board schools. The state and matriculation schools are public schools that accommodate even learners with lower I.Q. However, the matriculation school standard is considered higher than the state board syllabus but lower than the central board schools' standard (Narmadha & Chamundeswari 2013). The central board schools are private schools that have an interest in teaching and learning science. The 'Attitude toward Learning of Science Scale' was used to assess the attitude towards learning Science and the marks scored in Science were taken from their half yearly performance. Results showed that type of school had an effect on attitude to learning science and science performance. For example, students at the central board schools had a higher positive attitude towards learning Science compared to students in state board schools but did not differ with students in matriculation board schools at the secondary school level. Similarly, students at the central board schools performed better in Science compared to the students in state and matriculation board schools. A positive correlation was found to exist between attitudes towards learning Science and academic achievement in Science among the students.

The research reviewed for this study has contributed immensely to the current study. However, the reviewed research studies on reading, vocabulary, reading attitudes and academic performance were conducted outside Swaziland where the home setting and schooling differ from that in Swaziland. There has been no research conducted in Swaziland on the relationship between reading ability, vocabulary, reading attitudes and academic performance at high

school level. Therefore, the current study seeks to fill that gap as it explores high school learners' reading ability.

## **2.5 Conclusion**

This chapter has reviewed the literature that guided the current study. It has also shown the importance of the firm development of reading skills to bring about comprehension during reading. I have also shown the importance of vocabulary knowledge for reading comprehension, showing in particular that both vocabulary depth and breadth are important for learners to understand what they read. The principal importance of exposing learners to books during pre-school years so that they develop love for reading has also been discussed. The role of teachers to foster positive attitudes for children to enjoy reading has shown the importance of positive attitudes in helping learners enjoy reading and to read with understanding; an attempt that yields success at school.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

This chapter focuses on the methodology used in carrying out this study. The design and methodology were driven by the research questions used for the current study. This study was designed and modeled along the study by Lukhele (2009) and it used some similar research instruments to investigate reading abilities of high school learners. This chapter describes the study which was mainly quantitative and comprised a pilot study and the main study. However, an aspect of the qualitative approach was included through classroom observations which were intended to situate the results within a broader schooling perspective. Before presenting the methodological details relating to the research context, participants, research instruments, procedures, marking, analysis, results and discussion of both the pilot and the main study, I will briefly discuss the two major research approaches in order to situate my study within the broader methodological landscape. This will be followed by a discussion of the validity and reliability of test instruments.

#### **3.1 Quantitative and qualitative research approaches**

There are two main approaches used for conducting research, the quantitative and qualitative research approaches. Even though Reichard and Cook (1979, 232 in Nunan 1992, 3) argue that these two approaches are in many ways indistinguishable, each of these research approaches is used to fulfill specific research aims and functions. Each approach has its own methodological ways of collecting and analyzing data. The section that follows briefly describes these two research approaches.

##### **3.1.1 Quantitative approach**

Thomas (2003, 6) states that the quantitative approach generates numerical data or data that can be converted to numbers as is the case with the National Census, which counts people and households. As the quantitative approach helps in the understanding of how and why variables

are related to each other, Punch (2003, 17) explains that the quantitative approach is used to answer questions about relationships between measured variables. It generates statistics through the use of survey designs, using instruments such as questionnaires or structured interviews, and also psychometric or language assessment, as used in cognitive, linguistic and educational studies. Since this study investigated the relationships between reading comprehension ability, vocabulary knowledge, reading attitudes and academic performance using numerical data, it used the quantitative approach as this approach is more analytic and deductive too.

### **3.1.2 Qualitative approach**

Qualitative research focuses on understanding people's beliefs, experiences, attitudes, behavior and interactions. Nunan (1992, 4) points out that the qualitative approach is concerned with understanding human behaviour from the actors' own frame of references. It is descriptive and it tends to be more holistic and inductive in its approach. It concerns itself with understanding and interpreting real life events and stories, as well as attitudes, experiences and behaviour. In this approach data maybe collected through observations and interviews.

Though the current study was mainly quantitative, an aspect of the qualitative approach was incorporated where classroom observations were used to enrich an understanding of the results obtained from the quantitative data. During the classroom observations I took notes of what I observed and also held informal interviews with the teachers concerned.

## **3.2 Validity and reliability**

Drost (2011) suggests that research instruments for a quantitative study should be valid and reliable. The concepts of validity and reliability of research instruments are discussed below.

### **3.2.1 Validity**

Hughes (2003) explains that validity relates to the level of accuracy of a test in measuring what it is intended to measure. Drost (2011) explains that there are different types of validity. These include construct validity, face validity, and internal and external validity.

### **3.2.1.1 Construct and criterion-related validity**

Brown (2000) defines construct validity as a degree to which a test measures what it purports to be measuring. Thus a reading comprehension test should measure reading comprehension and not listening comprehension or writing ability. According to Hughes (2003, 26), the notion of construct validity refers to the general, overarching notion of validity. A test that purports to have construct validity may be evidenced by several forms of validity including content validity and criterion-related validity. For the current study, the reading test used as one of the research instruments had construct validity as it comprised a test passage and questions testing participants' comprehension of the passage at the literal, inferential and evaluative levels. In the same vein, the vocabulary test used in the current study also had construct validity as it tested word knowledge at the 2000-, 3000-, 5000-, UWL and 10 000-word levels.

On the other hand, criterion-related validity looks at the relationship between a test score and a specific outcome (Sudweds 2007). For example, Form 5 reading tests in Swaziland test learner's ability to answer literal, inferential, interpretive and evaluative questions. These are specific comprehension criteria in terms of which learners' overall comprehension ability are assessed.

### **3.2.1.2 Face validity**

Face validity is the notion that a test looks as if it measures what it is supposed to measure. For example, Hughes (2003) points out that a test that purports to measure pronunciation ability but does not require the test taker to speak, might be thought to lack face validity. At face value the research instruments used in the current study, namely the reading test and vocabulary test, had face validity as they clearly seemed to be testing reading ability and word knowledge in formats that the students recognised. The reading test had a 2000 word long passage where learners had to read and respond to various questions. The reading test also appeared in a format that is familiar to students as the text was followed by different question formats. In the same vein, the vocabulary test seemed to be testing vocabulary knowledge at the various word levels as the missing items were words that needed to be filled in. The participants in this study accepted the tests as they understood what was required.

### **3.2.1.3 Internal validity**

The concept of internal validity is explained as freedom from bias in forming conclusions in view of given data (Leedy 1997). In experimental studies it refers to whether a researcher has controlled for all other factors to which test results could be attributed. If there are differences in the results, the researcher has to be sure that there were no other interfering factors that compromised the data. This study was concerned with the concept of validity not only in the test items but also in the way in which the participants' responses were scored. Hughes (2003, 33) points out that if a reading test is meant to measure reading ability, the scoring of such a test must not take into account spelling and grammar because if that is done, the test would no longer be measuring what it was designed to measure.

To maintain internal validity of the reading test and the vocabulary levels test, I made sure that the scoring of the reading test and vocabulary test disregarded spelling and grammar as long as it was easy to understand what the participants wanted to say.

The reading questionnaire used in this study measured reading attitudes, reading habits, and access to reading resources. Although it was not easy to come up with items that tested these aspects directly, I made sure that the scoring of responses related directly to what was being tested (Hughes 2003, 34).

As the tests were taken at different intervals, I made sure that I took into account the dropout rate so that the results would not be compromised. As a result, students who took one test and abstained from the others were left out of the study. The questionnaire items were first tested on seven teachers in the English Department of the school where I teach, with the idea of making some changes in case the items were not clearly worded, and to clarify the items before they were piloted on the learners who participated in the study.

### **3.2.1.4 External validity**

Nunan (1992, 15) describes external validity as the extent to which the results can be generalizable from sample to populations. It answers the question, '*Can the conclusions drawn from the sample be generalized to other cases?*' From the inception and administration of the

study I was aware that its findings should give insight into the relationship that exists between reading, vocabulary, attitudes and academic performance. The study took into consideration external validity because the participants in the study were learners from four different schools representing typical rural and urban school settings in Swaziland. So all types of learners in the country could be said to be represented in the study as the participants came from a range of backgrounds including poor families, middle income families and from affluent households.

### **3.3. Reliability of research instruments**

Lankshear & Knobel (2004, 161) describe reliability as the degree to which scores on a test are consistent or stable over time. As stated earlier, the reliability and validity of the current study was considered from the beginning and through the administration of the research instruments. The reading questionnaire used in the current study was adapted from the Unisa Literacy Research Unit and it had twenty items. The reading test was taken from the University of Cambridge. It is a test used in various countries to test learners' reading ability. The vocabulary test used in this study was the active version of the vocabulary levels test developed by West (1953, in Laufer & Nation 1995).

The reliability score of research instruments can be tested using different statistical procedures, for example, Cronbach Alpha, Split half, Gutman, Parallel or Strict parallel. The reliability score of the two research instruments, the reading test and the reading questionnaire, used in the pilot phase was tested using Cronbach alpha and it yielded 0.81 for the reading questionnaire and 0.701 for the reading test (University of Cambridge Local Examinations Syndicate 2001). According to Drost (2011) a reliability level of 0.70 is sufficient and increasing reliability levels beyond 0.90 is not desirable. So it was felt that the reliability level of the reading test and the reading questionnaire were acceptable.

#### **3.3.1 Internal reliability**

Internal reliability is a measure of how well tests items measure the same construct or idea. It deals with the consistency of collecting, analyzing and interpreting data (Zohrabi 2013). Internal reliability is concerned with the question: *Would an independent researcher on analyzing the*

*data come to the same conclusion?* Researchers have to ensure that their test data is reliable. This section discusses the steps I observed to ensure the reliability of the test data.

As stated above there are several steps for ensuring reliability of research instruments. These relate to procedures, scoring and marking. To ensure reliability of the test data in this study I made sure that the tests were taken under uniform and non-distracting conditions as Hughes (2003) suggests. I took precautions to ensure that the tests were written in a quiet setting with no distraction or movements.

Hughes (2003, 49) further points out that there should be a detailed scoring key specifying acceptable answers and assigning points for acceptable partially correct answers. The scoring of the reading and vocabulary tests in the current study was objective because there was a guide in which the correct answers were clearly stated.

There were several steps that I followed to ensure that the test data of the current study were reliable with regards to marking. Hughes (2003, 50) points out that to ensure that tests are reliable all scripts should be scored by at least two independent scorers; I ensured the reliability of the test data by marking each script twice. This was done for the reading test, vocabulary test and the reading questionnaire. I also asked one of the teachers to check if I had marked and scored the scripts correctly by randomly checking some of the scripts. The scores were similar after the second marking, prompting me to think there was consistency in the marking.

As Hughes (2003) states, one way of making tests reliable is to ensure that test items are not ambiguous. I thought that the reliability of the reading test and the vocabulary tests have been proven since they are internationally administered papers. However, I ensured that the reading questionnaire had clear instructions and that the items were written in clear and simple language. During the pilot phase of the study, I noted items whose wording needed to be changed and I also explained orally those items which were not expressed clearly, as discussed further in § 3.5.4.

### **3.3.2 External reliability**

External reliability is the extent to which independent researchers can reproduce a study and obtain results similar to those obtained in the original study (Zohrabi 2013). In other words, it is a concept that seeks to answer the question: *Would an independent researcher on replicating the study come to the same conclusions?* As explained below, the current study undertook certain precautions to ensure external reliability of the test instruments.

To ensure external reliability in the scoring of the vocabulary test, reading test and reading questionnaire, a colleague in the English Department who taught Grade 10 (Form 4) in 2013 helped me in checking the scripts after I had scored them. The research materials were quantified to ensure that the data from the research instruments were reliable and objective.

Mulder (1986, 190) recommends that a reasonable representative sample be taken. This study had enough group of participants (4 groups from naturally occurring classes) to consider the emerging patterns of behaviour as meaningful.

I also ensured that I minimized fatigue and irritation by giving the participants a break in between the research instruments as I administered them. As a result the participants were attentive throughout the administration of the tests. I also informed the participants on what the research was about and requested that they take the tests seriously.

### **3.4 Ethical considerations**

In Swaziland it is customary for the Regional Education Officer in collaboration with the schools' principals and teachers to grant permission to a researcher for learner participation in a study.

Four months before the study began I wrote request letters to the Regional Education Officer seeking permission to conduct this study in the four state schools. The Department granted the permission and issued me with letters for the principals of the schools selected for this study (see Appendix A). The Form 5 learners were not forced to participate in the pilot and main study. They were formally asked to participate in the study through the Department of Education and through their school principals.

After meeting the principals of the four state schools, I gave them the letter from the Department of Education granting me permission to do research in their schools. I also explained verbally what the study would be about. They in turn granted me permission in advance through a written letter to conduct the study in their schools (see Appendix B). The principals introduced me to the class teachers who would assist me in conducting the study. I requested to conduct the study a week after meeting with the principals of the four state schools.

A week later I visited the four state schools on different days to conduct the study. In each school I met the class teachers who had been assigned to help me conduct the study. When I met the learners, I informed them of the purpose of coming to the school and asked them to participate in the study. I also informed them verbally that they were not compelled to participate. They agreed and thereafter the research instruments were administered to them.

I took into consideration the participants' right to anonymity and confidentiality. However, to make it easy to match the scores that would be obtained from the various research instruments I gave them codes to write on each research instrument administered. I assured them that their codes would not appear in the dissertation.

### **3.5 The studies**

The current study was conducted in two phases, namely the pilot study and the main study. The main aim of the pilot study was to test the research instruments and procedures that would be used in the main study. The pilot study was guided by two research questions, as indicated below:

1. What is the relationship between Form 5 learners' reading ability, vocabulary and academic performance?
2. What is the relationship between Form 5 learners' reading habits, reading attitudes and performance in reading comprehension and vocabulary?

There was a slight difference between the pilot study and the main study regarding the number of research questions and the administration of the research instruments as presented in § 3.6

and 3.6.4. During the pilot phase I administered two of the four research instruments that were administered during the main study. I only administered two during the pilot study due to time constraints. There were fewer learners who participated in the pilot study as opposed to the main study. The coding and scoring of the research instruments during the pilot and main study was quite similar. I describe the pilot study below.

As stated above, the purpose of conducting the pilot study was to test the research instruments and procedures that would be used in the main study and to also do some preliminary data analysis to see if I was on the right track with my study (Seliger & Shohamy 1989, 195). The pilot study was conducted during the first week of December 2012. This was a week after learners had finished writing their final examinations and schools were about to close for the third semester which is the last term in Swaziland's education calendar. It was conducted in two schools that differed from each other in terms of socio-economic status factors as explained below.

### **3.5.1 Research Context**

In this section I provide some background information about the two state schools in which the pilot study (and the subsequent main study) took place. The first, labeled School A, was a rural state school and the second one, labeled School B, was an urban state school.

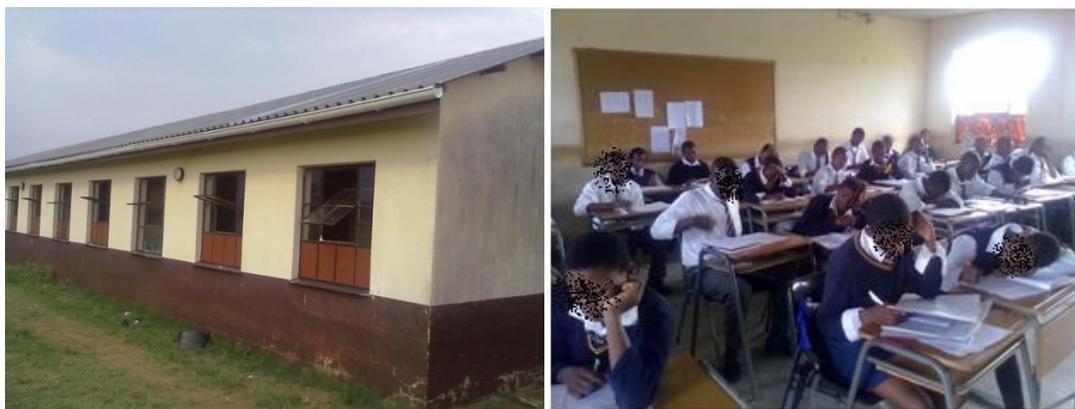
The rural state school, School A, ran from Form 1 (equivalent to Grade 8) to Form 5 (equivalent to Grade 12). It had a double stream for Forms 1 and 2 only and the rest of the classes had a single stream. This school had a total enrollment of 257 learners across the school. The class sizes varied across the forms, with the junior classes, Forms 1 and 2, having a total of 40 learners per class and the senior classes, Forms 3, 4 and 5, having 30 or less learners. The rural state school was located in an inaccessible village where some of the learners had to travel 9 kilometers on foot to get to school. As a result, late coming in the rural state school was a norm.

The village where School A was located is sparsely populated and the parents of the learners depend on subsistence farming for a living. A large percentage of the parents did not complete

high school; a fact obtained from the learner's responses in the reading questionnaire. Many of the parents are unemployed and struggle to pay school fees for their children. The school fees for the various classes range from R2500 to R3500 per annum, according to the schedule of fees kept in the principal's office.

The community of the rural state school speaks siSwati as a first language and English, which is used in the school as a language of learning and teaching, is spoken as a second language. The community does not have a print-rich environment. Reading resources are only encountered in the school in the form of the prescribed books offered for the various subjects taught in the school. There is no community or school library where learners can take out books and read. Information sourced from the school records showed that the school was among the worst performing schools academically in the district and teachers were working tirelessly to address the problem. Figure 3.1 shows the appearance of the rural state school. As can be seen, although the buildings are structurally sound and the students have their own desks and chairs, the classrooms themselves have bare walls and are not stimulating environments from a literacy or visual perspective.<sup>1</sup>

**Figure 3.1: Appearance of rural state School A, Figure 3.2: Learners at work in rural School A**



On the other hand, the urban state school, School B, was a bit different from the rural state school. This school also had classes from Form 1 to 5 and it had a double stream in all the classes. The total enrollment of this urban state school stood at 450 pupils. The junior classes

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<sup>1</sup> Permission was granted to photograph School A learners on task.

had 50 learners per class. There were fewer learners in the senior classes, with class sizes ranging from 25 to 30. School B was located within the suburbs in the capital city and so it was easily accessible. Learners did not have a problem with transport to school.

As the urban state school was located in the city, most of the learners came from middle class families whose parents held white-collar jobs. As a result, a large number of the parents could easily afford to pay school fees for their children, which ranged from R4500 to R5500 per year. The environment and the community in which the urban state school was located spoke siSwati as L1 and English was widely used as a second language. In comparison to School A, the urban school was better equipped with print resources. This is because the urban state school had a school library and the learners also had access to the national library in town. Even though the school claimed to have a functional library, there were only shelves with books and no seating in the library. Their library did not have tables and chairs where readers could sit and peruse books. The learners had to carry chairs from their classrooms to sit and read. Figure 3.3 shows the appearance of the library in School B, the urban state school.

**Figure 3.3: School library in School B**



Information gathered from the teacher in charge of the library in the urban state school suggested that the school encouraged learners to borrow books from the school library to read frequently. The library contained over a thousand books which included contemporary fiction and nonfiction. This was not enough given that the school had an enrollment of 450 learners. The

United Nations Educational, Scientific and Cultural Organisation (2006, in Conyngham, Isaacs, Dwayne, Makofane, Erhiawarien, Hess, Mohamed & Richardson 2010) stipulate that the relative size of a school library is premised on the calculation of at least ten books per learner. Thus a school of 450 learners should have at least 4,500 books in its collection.

The learners also had access to the national library in town. The teacher in charge of the school library pointed out that the school encouraged the learners to take up membership with the

national library so that they could take out books to read. Information sourced from the principal's office showed that there was still a long way to go for this urban state school as it had not produced academically good results during the previous five years.

### **3.5.2 Participants**

As stated above, the pilot study was conducted in two different state schools. The Form 4 learners, (equivalent to Grade 11) who were subsequently promoted to Form 5 (Grade 12) in 2013 participated in the pilot study. It was convenient to use the Form 4s in the pilot study because much of the syllabus examined in Form 5 is covered at Form 4 level so that Form 5 becomes a year of consolidation. At the time of piloting this study, the syllabus was almost completely covered.

There were 28 learners from rural School A who participated in the pilot study. Participants from the rural school were in the 16-20 age range. The curriculum followed by the participants offered 8 subjects including English as part of the subjects studied in Form 5. On the other hand, urban School B had 34 learners who participated in the pilot study. As in the rural school, learners from the urban School were in the 16-20 age range. The curriculum was similar across the two schools.

### **3.5.3 Research instruments**

As stated above, two research instruments were tested during the pilot study. These were the reading test from Cambridge University, and the reading questionnaire adapted from the Academic Literacy Research Unit from the University of South Africa. These research instruments were somehow similar to those used by Lukhele (2009) in her study. The reading test was used to assess participants' reading ability and the reading questionnaire was used to collect data relating to the learners' reading attitudes, reading habits and access to reading resources. A third and fourth research instrument, the active version of the vocabulary levels test designed by Laufer & Nation (1995) and a classroom observation schedule, were to be added during the main study.

The first research instrument that was piloted was the reading comprehension test (see Appendix C). As stated, this test is used to test Form 5 learners' reading ability and as a university pre-entry requirement. This was a November 2001 O' level examination paper. The paper had a 2-page passage of about 2000 words about two men setting out through the African territory and making for the coast. Their mission was to spy on criminals who were illegally smuggling guns by sea into Africa. The reading comprehension test consisted of twelve mixed questions which included literal, inferential, evaluative, and reading vocabulary questions and a brief summary of the passage, as tabulated below. The combination of all the types of questions in the paper totaled 50 marks.

**Table 3.1: Categorization of questions and mark allocation for the reading test**

<b>Types of questions</b>	<b>Number of questions</b>	<b>Mark allocation</b>
Literal	4	7
Inferential	4	8
Evaluative	2	5
Reading vocabulary	1	5
Summary	1	25
Total	12	50

The second research instrument, the reading questionnaire (see Appendix D) that was piloted had 20 questions relating to three components, viz. *reading attitudes*, *reading habits* and the *types of resources learners had access to*. Even though research shows that the Lickert style of structuring questionnaire items is valuable in some instances (Dolnicar, Grun, Friedrich & Rossiter 2011), some items in the reading questionnaire were designed using a simple yes and no binary format where learners had to tick yes if they agreed with a question and no, if they did not agree. Following the views of Preston and Coleman (2000) that Likert items take longer to complete than binary answer format, and that Likert items primarily represent response sets and only to a secondary degree actual differences in intensity, I used the binary answer format which offered respondents 'yes and no' in some items to capture direction effectively in their

responses. Nineteen of the items in the questionnaire were closed questions while one was open-ended to let participants express themselves freely and openly in one of the items.

In addition to investigating attitudes, the questionnaire also investigated the amount of exposure learners have to print resources both at school and outside the school environment.

Table 3.2 provides a breakdown of the number of items per component.

**Table 3.2: Summary of the items per component in the reading questionnaire**

<b>COMPONENTS INVESTIGATED</b>	<b>ITEMS PER COMPONENT</b>
1. Reading attitudes	5
2. Reading habits	7
3. Access to reading resources	5
4. Routine items on biographic info.	3
Total	20

### **3.5.4 Data collection procedures**

In conducting the pilot study, certain procedures were followed and tested to ensure that all problems that could arise in the main study were identified and dealt with early. The reading test and the reading questionnaire were administered to participants on the same day from 8 to 10:30. The reading test was administered first because it was the more demanding of the two and participants would be fresh at the beginning of the day. The participants were given one hour thirty minutes to complete the reading test. I did that because Cambridge University, the publisher of the reading test, states that it has to be completed in one and a half hours. This is because the passage is fairly long and the questions need carefully thought out responses.

After I administered the reading test, I observed that after the stipulated time the participants had still not yet finished the test. To ensure that all sections of the paper were properly completed, I allowed the participants twenty more minutes to finish all sections of the paper.

After finishing the reading test, participants were given a 25-minute break to freshen up. The reading questionnaire was administered to participants on the same day as the reading test from 10:00 to 10:30. For this research instrument, I read out the instructions to the participants to ensure that they understood what was expected of them. As I administered the questionnaire, there were a few problems that I had to address to come up with correctly structured items. For example, item number 4 was worded as 'Do you enjoy reading?' and participants had to choose one of the four given options namely: *very much*, *a lot*, *a little*, and *not at all*. When learners arrived at this item they kept asking should they tick or circle the relevant option. From their questions I realized that I had to give clear instructions on each item in the reading questionnaire. Again on item 7, 'When did you last read a book?' participants seemed to give less genuine responses and it appeared as if they responded positively to please the researcher or to create a good impression. Most of the responses on this item centered on the first option: *recently*. The last item that appeared problematic during the pilot phase was item 12 which read as 'How do you acquire vocabulary in English?' Again four options were given here ranging from: (a) *reading novels* (b) *dictionary* (c) *listen for unfamiliar words in class* (d) *other way (specify).....* With this item the participants seemed to have a problem with the expression 'acquire vocabulary' and they kept on asking what it meant. I realized that I had to simplify that expression and make it 'How do you learn new words in English'? I decided that I would make changes in the main study as informed by the participants' responses in the pilot study. After the participants had filled in the questionnaires, I collected them for analysis.

### **3.5.5 Data coding and analysis**

In the first research instrument, the reading test, participants read a passage and responded to 12 questions based on the passage. The questions carried different marks as shown in Table 3.1. The reading test was marked out of 50 points and the final scores were converted to percentages. The scoring was guided by the marking guide provided along with the question paper by Cambridge University and I marked the responses without including another rater as this was the pilot phase. The responses of the participants to the reading comprehension test were coded, captured and analyzed using SPSS version 20.

With regard to the reading questionnaire, the respondents described their reading habits, practices and attitudes by responding to the statements on the questionnaire. The numerical coding and scoring of the questionnaire data was modeled along the lines of Mackey and Gass (2005). A negative response, that is a response showing an undesirable reading attitude as 'not at all' in item 4 above, was allocated a -2 score while a positive response was allocated a +2 score. There were no in between scores of say -1 or +1. The responses given for each item were calculated using the -2 and +2 point allocation.

Academic performance was taken as the continuous assessment mean derived for each pupil from each subject. This was obtained from three test scores obtained from tests written in February, March and April 2012. These scores were obtained from the school records which are kept in the Head teachers' office.

### **3.5.6 The results of the pilot study**

In this section of the study, I present the descriptive statistics of the pilot study which show an overall pattern of the performance and responses of the participants from the research instruments administered to them. This will be followed by inferential statistics giving correlations to test if there was a relationship in the areas of investigation.

The descriptive statistics in Table 3.3 show low overall reading performance, which suggests serious reading problems in both school A and B, and also low academic performance. The reading mean and academic performance mean from School A and B were both below 50%. These means suggest low reading levels and poor academic performance. In contrast, in other areas of investigation, reading attitudes and access to reading resources, the means suggested positive reading attitudes and ready access to reading resources.

Both schools recorded a reading attitude mean above 75%. However, the performance in the reading test did not tally with the participants' belief that they had positive attitudes toward reading. The mismatch in the reading mean and reading attitude mean suggested that participants had an inaccurate perception of themselves with regards to reading.

Given the small sample sizes at each school, a non-parametric Spearman’s correlation was applied to the data to test whether there is a relationship between the areas of investigation. The results are reflected in Table 3.4 on the next page.

**Table 3.3: Descriptive statistics on reading performance, academic performance, reading attitudes and habits, and access to reading resources for the two schools**

	<b>Rural School A (n=28)</b>	<b>Urban School B (n=34)</b>
RC mean	29.0	41.1
STD	7.59	7.97
Min – max	14 –44	24 –56
AP mean	45.1	45.2
STD	11.1	6.98
Min – max	27 – 76	34 – 66
Att. Mean	77.4	82.4
STD	13.1	12.7
Min – max	63– 100	50 – 100
Habits mean	72.3	74.6
STD	6.2	6.15
Min – max	61 – 85	61 – 85
Acc. Mean	76.9	82.2
STD	10.6	11.9
Min – max	50– 100	63 – 100

RC = Reading comprehension; AP = Academic performance; Att. = Attitudes; Acc. = Access (to print material); STD = standard deviation;

As the vocabulary levels test was not administered in the pilot study, the vocabulary component was cut out of the first research question and it was stated as; What is the

relationship between learners reading comprehension, academic performance and reading attitudes, reading habits, and access to reading resources.

**Table 3.4: Inferential statistics for School A and B on the four areas of investigation; reading ability, academic performance, reading attitude and access to reading resources**

<b>School A (N=28)</b>	Attitude score	Access score	Reading habit	RC	AP
Attitude score: correlation	1.000	0.128	0.691 *	0.009	-0.041
p-value		0.515	0.000	0.964	0.836
Access score: correlation		1.000	0.501 *	-0.090	0.088
p-value			0.007	0.650	0.655
Reading habit: correlation			1.000	-0.034	-0.144
p-value				0.862	0.464
RC: correlation				1.000	0.114
p-value					0.565
<b>School B ( N= 34)</b>					
Attitude score correlation	1.000				
p-value					
Access score: correlation	-0.224	1.000			
p-value	0.202				
Reading habit: correlation	0.366*	0.182	1.000		
p-value	0.033	0.304			
RC: correlation	-0.162	-0.084	0.027	1.000	
p-value	0.359	0.638	0.879		
AP: correlation	-0.176	0.239	-0.029	0.439	1.000
p-value	0.319	0.173	0.873	0.009	

\* significant at .05

\*\* significant at .001

For School A, the inferential statistics above show that there is a statistically significant relationship between reading attitudes and reading habits, and also between access and reading habits but not between RC and attitudes, access or habits, or between RC and AP. In

the case of School B, Table 3.4 shows a statistically significant relationship between reading habits and reading attitudes, and between academic performance and reading comprehension.

### **3.5.7 Modifications to the research instruments and procedures**

After completing the pilot study, the next step was to modify the research instruments as informed by the problems and questions that were raised by the participants during the piloting of the research instruments. Modifications were made on the reading questionnaire and not on the reading test.

Although the learners performed poorly in the RC test, I decided to retain the test as it was and not to modify it, for the following reasons: its reliability and validity had been proven by Cambridge University and it was a paper used world-wide and in Swazi high schools to test Form 5 learners' reading ability and as university pre-entry requirement. A similar RC test by Cambridge had been used for the past four decades and many learners who gained entry into the local university had done so after passing this kind of reading test. Even if learners passed all other subjects but failed the reading test, they could not be admitted to the local university. The learners did not express concerns regarding clarity of the items during its piloting. In the pilot phase I had to add twenty more minutes as the learners could not finish within the one hour thirty minutes. This prompted me to give the learners 20 more minutes in the main study so that they provide answers to all the questions

For the reading questionnaire, no alterations were made with regards to time for administering it in the main study. The learners were also given the same 30 minutes they had in the pilot phase. This was because they were able to respond to all the questionnaire items during the pilot phase and I thought they would not struggle with time even in the main study.

However, regarding the structure and types of questions, I felt that I needed to add items that would help me to get a fuller picture of the participants with regards to reading. I decided to include checks in the questionnaire for the main study to counter participants attempts to give response they thought would be acceptable and please me. For example, question 7 which read as *'when did you last read a book?'* learners seemed to pick the first option which read as;

'recently' to please the researcher. To get authentic responses for this item, I added question 8 in the revised questionnaire to check if they really last read a book recently as they claimed. Question 8 read as follows: *Write the title of the book you last read.*

Socially desirable responses seemed to occur particularly in question 9 in the reading questionnaire: 'How often do you go to the national library to take out books to read?' Even on this item it seemed their attitude was to create favorable impressions as 80 to 90% of them picked the first option which read as: 'once a week'. To counter learners attempt to give responses they thought would be acceptable to the researcher, I added a new question, Question 10: *'Write the title of the book you picked from the national library.'*

Piloting the reading questionnaire was crucial because the questions posed by the participants showed some loopholes in some of the items. Item 11 for example which read as *'How do you acquire new words in English?'* prompted many questions from participants. This question gave four options: *(a) Reading novels, (b) I look up new words in a dictionary, (c) Listen for unfamiliar words in class, (d) Other (specify).....* In this item participants kept asking whether they should choose one or more options. I realized that for the main study I had to give clear instructions for such items and I added the instruction, *'Tick as many options as relevant to you'*.

The information I got from the pilot study was important as it showed me before the main study that in spite of the participants thinking of themselves as good and avid readers, most of them were below average or poor readers who needed help to improve considering that their academic mean scores were at 45% from both schools. Minimum scores from both schools ranged from 30% to maximum scores of 70%. Only a few, that is two learners, obtained academic performance scores of 76% and 66%.

### **3.5.8 Discussion of the results of the pilot study**

As I pointed out earlier, due to time constraints I only piloted two of the four research instruments that would be used in the main study, namely the reading test and reading questionnaire. The vocabulary levels test and classroom observations were administered in the main study. This discussion therefore focuses only on the two research instruments above.

## **1. What is the relationship between learners reading comprehension levels and academic performance?**

For the first research question, the reading mean and academic performance mean were below the mid-mark for both schools. School A was the worst performing with none of the learners scoring above 45% in the reading test. A similar picture of low performance in the reading test was observed in School B where the maximum score fell below 60%. These results were unexpected as the reading test used was considered by Cambridge University to be at the level of Form 5 learners. The participants could also not complete the test within the given time, a factor which suggested that they were slow in their reading and struggled to understand what they read. The reading test mean scores from both schools suggested that a lot needed to be done to improve learner reading ability. Despite the fact that School B was located in an urban area with a school library and a national library within reach, these resources did not seem to confer much advantage as the learners' reading mean scores suggested a need to improve their reading ability. The surrounding poverty, lack of print material and lack of access to a library for school A was glaring and these participants had the lowest reading mean score.

There were negligible differences in the academic performance mean scores of Schools A and B at 45.1% and 45.2% respectively. A common trend between the two schools was that they both obtained a low reading mean score and performed poorly academically.

In both cases Spearman's correlations between reading ability and academic performance for rural School A and urban School B indicated a statistically significant relationship. As expected, this confirmed what has been found elsewhere in reading research.

## **2. What is the relationship between learners reading attitudes and performance in a reading test?**

The customary relationship between positive reading attitudes and high performance in a reading test was not confirmed in the pilot study. This came as a surprise. The participants from School A and B perceived themselves as committed readers and reported positive reading attitudes with mean attitude scores of 77.4% and 82.4% for Schools A and B respectively.

However, when I compared their attitude scores with their reading test scores, there was a mismatch. These reading mean scores were very low in comparison to the participants' perception of themselves as good readers with positive reading attitudes. Though I had adapted the reading questionnaire, I felt that some of the items were not properly structured. As reported in § 3.3, the reliability score of the reading questionnaire had been tested through Cronbach Alpha and it yielded 0.81.

I felt that the mismatch in the attitude mean score and the reading test mean score could be attributed to two factors namely; the participants' poor reading skill which could have made them unreliable judges of their reading ability (Zubin & Gregory 2007), and their desire to portray themselves as committed readers and thus please the researcher, referred to as social desirability effects. As stated earlier, their poor performance in the reading test may be attributed to the fact that it may have been beyond the current ability level of the learners, even though it was designed for Form 5. I had also taken time before the participants responded to the paper to read out all the questions to them to ensure that they understood what was expected of them. The reading test had been confirmed by Cambridge University as reliable and valid as shown in § 3.3 and it was deemed to be at the level of Form 5 learners.

The Spearman's correlation between reading attitudes and reading comprehension in both schools indicated a very weak and statistically insignificant relationship.

### **3.6 The main study**

The aim of the main study was to investigate if there is a relationship between reading, vocabulary knowledge, reading attitudes, habits and access and academic performance among Form 5 learners in Swaziland's urban and rural state schools. The main study differed slightly from the pilot study in terms of the number of research instruments and research questions used. In the main study a vocabulary levels test and classroom observation schedule were added to the reading test and reading questionnaire and two new research questions were added. The two new research questions were necessitated by a need to tease out gender differences in performance. After the addition and modifications, the research questions in the main study were as follows:

1. What is the relationship between reading ability, vocabulary knowledge and academic performance?
2. What are the differences in performance between reading comprehension and vocabulary knowledge and academic performance in urban and rural state schools?
3. What are the differences in performance in reading ability, vocabulary knowledge and academic performance between genders?
4. What is the relationship between reading attitudes, habits and access, and performance in reading comprehension and vocabulary?
5. How is reading comprehension and vocabulary enacted in Form 5 English classrooms?

### **3.6.1 Research context**

The main study was conducted in four state schools that differed from each other in terms of socio-economic status and location. In Swaziland, as in most developing countries, rural schools tend to be poor schools with lower SES than their urban counterparts and they have fewer resources and also attract fewer well qualified teachers. Parents in the Swazi rural schools have lower literacy levels. Two of the schools where this study was conducted were rural schools while the other two were urban schools. For the purpose of this study these schools were labeled Schools A, B, C, and D. The first two schools listed here (rural School A and urban School B) were described in the pilot study earlier in this chapter and their conditions remained the same even during the main study. Therefore in this section I am going to describe the remaining two state schools, School C and D where the main study was also conducted.

The third state school where the main study was conducted was rural School C. This state school had a total enrollment of 650 learners. It had classes from Form 1 to Form 5, with each class having three streams, that is A, B and C. Each class, especially the junior classes, Forms 1, 2 and 3, had a class size of 45 learners and the senior classes, Forms 4 and 5 had a class size of about 40 learners. All the classes in this school had a single desk and a chair for each learner

which made it easy for the learners to sit comfortably in their positions during instruction. This rural state school was more accessible as there was an all-weather road two hundred meters from its premises.

A majority of the parents in the community of rural School C were unemployed and practiced farming. The parents and the learners in the community spoke siSwati as a first language. English was used mainly in the school as a second language and as a language of learning and teaching. This rural state school was not well resourced; learners could only depend on the prescribed text for the various subjects taught at school. Each learner had a copy of the prescribed book as the school used a book rental system whereby the learners were allowed to keep the books until the end of the year. Even though they claimed to have a makeshift library in what was meant to be the bursar's office, the books were rarely loaned to learners and their school timetable did not show a library or reading period. The classroom itself was bare and no print material was visible or on display. This school also did not have a good academic reputation in the district in terms of producing good results.

The fourth school where the main study was conducted was School D, an urban state school. This school was located within Mbabane, the capital of Swaziland. It had a total enrollment of 420 learners and had classes Form 1 to Form 5. The school had a double stream and each class had about 40 learners. This school was well furnished and each learner had a desk and a chair. Most of the learners came from more affluent families and were driven to school each morning by their parents. Most of their parents were educated and had white-collar jobs. The learners spoke siSwati as their first language and English as their second language, which was also used as the language of learning and teaching.

Urban School D was also poorly resourced and the walls in the class where I conducted the main study were not covered in print material. However, the learners in this school had access to the national library and most of the learners had the national library membership card which allowed them to take out books from the library to read at home and at school.

Contrary to all the other schools that participated in this study, this urban state school had a good academic reputation in terms of producing good results over the years. In fact, for the past ten years the school has been a top performer when it comes to Form 5 results. However, the teachers highlighted that there had been a slight decline in performance during the previous 2 years due to changes in administration.

### **3.6.2 Participants**

The main study was conducted between June and July 2013. The participants were in the final year of high school, Form 5, which is equivalent to Grade 12. After completion of Form 5, they would be awarded a certificate that would allow them to enter university if they had passed well to meet the university entry requirements. Unlike in the pilot study, the number of learners in each Form 5 class had decreased due to class repetition. As a result 20 learners from School A participated in the main study and 16 from School B. There were 13 learners from School C and 15 from School D. All the participants came from intact classes and they were in the 16-20 age range. All of them were siSwati speakers, and they used and learnt English as a second language. The curriculum followed by the participants offered 8 subjects including English as part of the subjects studied in Form 5.

### **3.6.3 Research instruments**

There were four research instruments used in the main study to collect data relevant for the research questions that guided this study. These are presented below.

Reading comprehension test: The reading comprehension test as described in § 3.5.3 was taken from Cambridge University O' level 2001 examination. This was the same test used in the pilot study and, to preserve the integrity of the test, no changes were made in it for the main study.

Reading questionnaire: The second research instrument administered to participants in the main study was the adapted reading questionnaire. In its adapted form, it had twenty questions relating to three components: reading attitudes, reading habits and access to reading

resources. Some items in the reading questionnaire were designed using a simple yes and no binary format where learners had to tick yes if they agreed with the question or no if they did not agree. Some items' responses varied on a four-point scale defined by the categories: *1. Very much, 2. Quite a lot, 3. A little, and 4. Not at all.* Nineteen of the items in the questionnaire were closed questions while one was open-ended to let participants express themselves freely. In addition to investigating attitudes, the questionnaire also investigated the amount of exposure learners have to print resources both at school and outside the school environment.

The reading questionnaire was structured in such a way that questions 1, 2, 3 and 15 were routine ones dealing with language learners were comfortable speaking and reading in and also their parent's level of education. I found it vital to determine the level of education of the parents of the participants as research suggests that learners whose parents are educated tend to be inspired to do well at school because they have positive role models. Items 4, 10, 16, 19, and 20 investigated participants' reading attitudes while items 6, 7, 11, 12, 13 and 17 investigated participants reading habits. The last set of items 5, 8, 9, 14 and 18 investigated participants' access to reading materials. Table 3.5 shows the division of the questionnaire items.

**Table 3.5: Division of the questionnaire items**

<b>List of reading questionnaire items</b>	<b>Areas investigated by the questionnaire items</b>
1, 2, 3, 15	Biographic information
4, 10, 16, 19, 20	Participant's reading attitudes
6, 7, 11, 12, 13, 17	Participant's reading habits
5, 8, 9, 14, 18	Access to reading materials

Vocabulary levels test: The third research instrument used in the main study was the active version of the vocabulary levels test compiled by Laufer & Nation (1995, 320-322). It was designed to test vocabulary size in terms of five levels of frequency of the words. The tests were at the 2000-, 3000-, 5000-, the University word list and the 10000-word levels. It uses a

modified cloze test format. In other words, at each vocabulary level the tested words were structured in such a way that a sentence was given with a missing word to fill in, and the first few letters of the intended missing word were given and participants were required to complete the word (see Appendix E). This test was meant to examine the vocabulary skills of the participants and its reliability score was at Cronbach alpha 0.95. Mastery of a vocabulary level is taken to be a score of 85% or more.

#### Classroom observation schedule:

Classroom observations were also conducted in the current study. As stated in § 3.0, it formed the qualitative aspect of the study. It was used to complement the quantitative aspect of the current study and to also help me make sense of the quantitative findings. The observations helped me make sense of literacy practices happening in the classroom during Literature lessons. During the observation I focused on how reading and vocabulary were enacted.

I conducted the observations using an observation schedule to guide my focus. The classroom observation schedule was divided into sections A and B. Section A investigated the availability of the library within the schools. The aim was to find out if the schools that participated in the study had functional libraries. Section B investigated 5 features: lesson content, learning materials, vocabulary development, time allocation and classroom management. On each of these features I was looking for aspects that could positively or negatively impact on learning.

#### **3.6.4 Procedures**

As stated in § 3.4, the current study took note of ethical considerations before administering the research instruments. Four research instruments were administered to participants between June and July 2013. On the first day I administered the reading test and the reading questionnaire. The reading test was administered first because it is the most demanding of the two. To make sure that learners understood all the questions and to avoid a situation where they would leave gaps, I read out all the questions to them before they read the passage so that they understood what was expected of them. I wanted to make sure that learners were fresh as they took the reading test, so I opted for the morning time. The reading test was administered

from 8 o'clock to 9:50. Before participants started reading the passage I gave them codes to write on the test scripts. This was done to match their scores from the reading test to their scores from the other research instruments. The completed scripts were collected for marking by the researcher and the participants were given a ten minutes break to freshen up before taking the second research instrument.

The reading questionnaire was administered on the same day from 10:00 to 10:30. Like the reading test, this research instrument was administered first to the two rural state schools before it was administered to the urban state schools. For this research instrument I urged participants to maintain the same codes they were given for the reading test. This was done to make it easy to match their scores. Having realized from the pilot study that some learners struggle to understand the written word, I read out the questions in the questionnaire and explained orally what was expected from learners. After the learners had filled in the questionnaire, I collected them for analysis.

A week after the reading test and questionnaire were administered to the learners, I did classroom observations, beginning with the rural state school. The classroom observation schedule guided my focus throughout the observation period. Information for the observation schedule was gathered by the researcher during the lesson observed in each of the two state schools. The lesson that was observed in each case was an English literature lesson. I quietly entered the classrooms for the lessons to be observed and sat at the back to note how the lessons were conducted. As the lessons continued I wrote up field notes to help me remember what was going on during the lessons. Afterwards, I consulted the field notes as I tried to interpret and make sense of the data.

The last research instrument, the vocabulary test, was administered in the first week of July 2013. It was first administered to the rural state schools at the beginning of the week and towards the end of the same week it was administered to the remaining two state urban schools. As July is a month where mock exams are written in Swazi state schools, I administered the test in the rural state schools and asked a colleague to administer the test for me in the urban state schools. Participants completed the test within forty minutes. To ensure that

participants understood what was expected for the test, I explained to them what the test was about and asked my colleague to do the same in the urban state school.

### **3.6.5 Data scoring and analysis**

The scoring of the reading comprehension test in the main study was similar to that of the pilot study as indicated in § 3.5.5. The only difference was that in the main study I asked a colleague in the English Department to check the scripts after I had marked them to ensure that I had followed the marking guide correctly and consistently.

The analysis and scoring of the adapted reading questionnaire in the main study was similar to the pilot study as given in § 3.5.5.

The vocabulary test had five levels of word knowledge as shown in section 3.6.3. The total score for the five levels was 90 points. I first identified scores of each level of word knowledge and went on to give the total vocabulary score. The scores were given in percentages.

With the Form 5 learners, I expected that their performance in the reading test would correlate with their performance in the vocabulary levels test especially at the 2000-, 3000- and 5000-word level.

Academic performance was compiled from the participants' end of year examinations results as will be discussed later.

### **3.7 Conclusion**

In this chapter I have presented the details of the pilot and the main study and the methodological details. I have also presented and discussed the results of the pilot study. The results of the main study will be presented and discussed in detail in Chapter 4.

## CHAPTER 4

### RESEARCH FINDINGS AND DISCUSSION

#### 4.0 Introduction

The aim of the current study was to investigate the relationship between reading, vocabulary, reading attitudes and academic performance among Form 5 learners in Swaziland's urban and rural state schools. In Chapter 3, I explained the research design and method, presented the pilot study and described the methodological aspects of the main study. This chapter is about the quantitative component of the current study. The qualitative aspect will be dealt with in Chapter 5. In this chapter, I will present the results of the data analysis as per the research questions and also discuss the results of the current study.

#### 4.1 Relationship between reading ability, vocabulary and academic performance

The first research question sought to investigate the relationship between reading ability, vocabulary and academic performance. Its corresponding hypothesis was: *There is a significant relationship between reading ability, vocabulary and academic performance.*

Before testing this hypothesis, I shall first present the descriptive results of the reading comprehension test, the vocabulary assessment, and academic performance. Table 4.1 below presents the descriptive statistics of each of the four schools as well as their scores, expressed as percentages.

A common trend among the learners was overall low reading comprehension ability, low vocabulary knowledge and poor academic performance. With the exception of School D, the mean scores for reading, vocabulary and academic performance are all below 50%. For example, the percentiles for the reading test and vocabulary test show that the best performing learners (i.e. those at the 75<sup>th</sup> percentile) obtained a mean score of 61%. Poor academic performance in Schools A, B and C was also suggested by the fact that learners at the 25<sup>th</sup> and

50<sup>th</sup> percentiles scored way below the mid-mark. In schools A and B they did not even make it into the 40s.

**Table 4.1: Descriptive results for reading comprehension, vocabulary and academic performance for all schools**

	School A	School C	School B	School D	All schools mean
RC mean %	25.8	25.8	46.7	54	37.6
SD	11.92	10.93	8.41	10.87	16.35
Min-max	8 - 46	10 - 42	36 - 66	22 - 70	8 - 70
Percentile 25 <sup>th</sup>	14	14	40	51	24.5
50 <sup>th</sup>	26	30	44	55	39
75 <sup>th</sup>	34	36	51	61	50.7
Vocab. Mean %	39.1	42.8	49.4	54	45.9
SD	8.99	4.54	9.52	6.68	9.78
Min-max	18 - 57	37 - 52	33 - 71	39 - 64	18 - 71
Percentile 25 <sup>th</sup>	32	39	42	50	39.3
50 <sup>th</sup>	37	41	47	54	45.9
75 <sup>th</sup>	45	46	56	61	52
AP mean %	37.5	41.2	48.7	73.4	49.3
SD	11.26	13.88	9.86	3.26	17.22
Min-max	19 - 62	26 - 76	35 - 71	68 - 79	19 - 79
Percentile 25 <sup>th</sup>	27	31	40	71	35.2
50 <sup>th</sup>	37	36	45	74	46.5
75 <sup>th</sup>	46	50	54	75	68.7

Poor performance in the reading test was also reflected in the different types of questions. The reading test had four questions namely, literal, inferential, evaluative and reading vocabulary questions. The low mean scores obtained in these questions suggested that the learners had a

weak reading ability. Table 4.2 below shows that, with the exception of School D, all the schools performed poorly across all four types of questions.

**Table 4.2: Performance of the schools in the four types of questions**

	<b>School A (n=20)</b>	<b>School C (n=13)</b>	<b>School B (n=16)</b>	<b>School D (n=15)</b>	<b>All school total</b>
Literal mean %	19	25	46	63	37.4
Percentiles 25 <sup>th</sup>	14	16	41	60	20
50 <sup>th</sup>	20	19	45	64	38
75 <sup>th</sup>	23	38	52	69	54
Infer mean %	14	13	27	63	28.5
Percentiles 25 <sup>th</sup>	13	0	16	60	13
50 <sup>th</sup>	13	13	25	63	20
75 <sup>th</sup>	16	25	38	69	50
Evalua. mean %	5	9	23	63	23.9
Percentiles 25 <sup>th</sup>	0	0	20	60	0
50 <sup>th</sup>	3	0	20	68	20
75 <sup>th</sup>	10	20	40	70	40
Readvocamean%	20	43	91	97	60
Percentiles 25 <sup>th</sup>	5	10	80	100	20
50 <sup>th</sup>	20	40	100	100	80
75 <sup>th</sup>	35	60	100	100	100
Total reading comprehension mean score %	14.5	22.5	46.7	71.5	37.6

With the exception of School D, the percentiles show that the learners' reading skills were stronger at the literal level and weaker at the inferential and evaluative levels. For example, the learners in School C obtained a mean of 25% at the literal level while the weakest learners in

the same school at the inferential level obtained a mean of 0%. However, with the exception of School A, the best performance in the other schools occurred at the 75<sup>th</sup> percentile in the reading vocabulary questions. For example, learners at the 75<sup>th</sup> percentile in Schools C, B and D scored a mean of 60%, 100% and 100% respectively.

With regards to performance in the various levels of word knowledge, as to be expected, the learners' knowledge of words was stronger at Level 1, i.e. the 2000-level, and became steadily weaker at the other levels, as shown in Table 4.3 on the next page.

The descriptive statistics in Table 4.3 show generally weak vocabulary knowledge in all the four state schools beyond the 2000-word level. Mastery of the 2000-word level was obtained in Schools B and D, the urban school. Mastery of a level is generally set at 85% (Engels 1981). Knowledge of words at other levels was generally low, especially in Schools A and C. This kind of vocabulary knowledge is insufficient at high school as learners are expected to read academic texts with understanding. Considering that English is the LoLT for all their content subjects, one would have expected better knowledge of academic words.

Table 4.1 above presents descriptive statistics of the academic performance of the learners in the four state schools that participated in the current study. As highlighted in Chapter 1, in this study academic performance was arrived at by compiling the participant's scores from all the eight subjects on which participants were examined in the external Cambridge exams and aggregating the results across the eight subjects.

As Table 4.1 shows, except for School D, the academic performance mean scores in the other three state schools show low or poor academic performance, especially in the rural schools. For example, rural School A and urban School B obtained an academic performance mean score of 37.5% and 48.7% respectively. The worst performing learners at the 25<sup>th</sup> percentile in School A obtained an AP mean score of 27% while the best performing group in the same school at the 75<sup>th</sup> percentile only obtained a mean of 46%. In contrast, in School D learners at the 75<sup>th</sup> percentile obtained a mean of 75%, showing disparities within the education system.

**Table 4.3: Performance at the various levels of word knowledge**

	Word level	School A (n=20)	School C (n=13)	School B (n=16)	School D (n=15)	All schools total
Mean score%	2000	77.7	74.2	86.2	87.4	81.4
Min-max score%		59 - 88	58 - 100	59 - 100	49 - 100	49 - 100
Percentiles: 25 <sup>th</sup>		72	61	77.5	82	74
50 <sup>th</sup>		82	70	88	88	82
75 <sup>th</sup>		82	85	94	94	88
Mean score%	3000	51.7	64.9	61.5	76.2	62.5
Min-max score%		17 - 72	50 - 84	39 - 83	67 - 94	17 - 94
Percentiles: 25 <sup>th</sup>		50	59	51.5	67	50
50 <sup>th</sup>		50	63	64	72	66
75 <sup>th</sup>		57	71	70.7	83	72
Mean score%	5000	18.5	45.7	37.7	36.9	33.1
Min-max score%		0-56	38 - 56	13 - 69	13-72	0 - 72
Percentiles: 25 <sup>th</sup>		7.8	40	25	25	19
50 <sup>th</sup>		16	45	38	31	31
75 <sup>th</sup>		25	50	48.5	50	44
Mean score%	UWL	44.8	25.4	53.8	63.8	47.5
Min-maxscore%		6-72	0 - 55	28 - 78	44-83	0 - 83
Percentiles: 25 <sup>th</sup>		28	18.5	44	56	28
50 <sup>th</sup>		50	23	56	61	50
75 <sup>th</sup>		59	35	65	72	61
VLT total%	10 000					
Mean score%		2.9	4	7.7	6.4	5.1
Min-max score%		0-11	0 - 9	0 - 33	0-22	0 - 33
Percentiles: 25 <sup>th</sup>		0	0	0	0	0
50 <sup>th</sup>		0	5	6	06	06
75 <sup>th</sup>		6	6.5	11	11	06
Total voc. mean score %		39	42	49	54	45.9

However, it is noted that the minimum AP score at School D was 68%. This is most uncommon, even in good schools, as there are usually a small group of learners who struggle academically. The academic performance results were obtained from the schools themselves so this anomaly is difficult to account for.

Having presented the descriptive statistics, I now move to the inferential component of statistical analysis. Given the small sample sizes at each school, a non-parametric correlation, Spearman’s rho, was used to test whether there is a significant relationship between reading ability, vocabulary and academic performance. Table 4.4 below shows a Spearman’s correlation between reading, vocabulary and academic performance.

**Table 4.4: Correlation matrix between Reading comprehension, Vocabulary and Academic performance**

N=64			Vocab.	AP
Spearman's rho	RC	Correlation Coefficient	.574**	.661**
		Sig. (2-tailed)	.000	.000
	Vocab.	Correlation Coefficient	.	.591**
		Sig. (2-tailed)		.000

\*\* Correlations highly significant at .001

All three variables are robustly related, as shown in Table 4.4. The strongest correlation was between reading comprehension and academic performance ( $r_s = .66$ ), and reading comprehension also correlated strongly with vocabulary ( $r_s = .57$ ). However, it is also interesting to note the robust relationship between vocabulary and academic performance ( $r_s = .59$ ). In other words, these results show that learners who have stronger reading abilities and know more words perform better academically. The first research hypothesis namely, that there is a significant relationship between these three variables, is indeed confirmed.

#### **4.2 Differences in performance between reading comprehension, vocabulary and academic performance in the two types of schools**

The second research question sought to investigate differences in performance between reading comprehension and vocabulary knowledge in the urban and rural state schools. Its corresponding hypothesis was: *There are significant differences in performance between reading comprehension, vocabulary and academic performance in urban and rural state schools.*

Before testing for significant difference between urban and rural schools we first look at the descriptive statistics for these two groups of schools as shown in Table 4.5 below.

**Table 4.5: Reading comprehension, vocabulary and academic performance across rural and urban schools**

	Rural schools (n=33)	Urban schools (n=31)
RC mean	25.8	50.2
STD	11.37	10.21
Min – max	8 - 46	22 - 70
Percentile 25 <sup>th</sup>	14	42
50 <sup>th</sup>	26	51
75 <sup>th</sup>	35	58
Vocab mean	40.5	51.7
STD	7.69	8.48
Min – max	18 - 57	33 - 71
Percentile 25 <sup>th</sup>	35	46
50 <sup>th</sup>	40	51
75 <sup>th</sup>	45	57
AP mean	39	60.3
STD	12.28	14.81
Min – max	19 - 76	35 - 79
Percentile 25 <sup>th</sup>	29	45
50 <sup>th</sup>	37	68
75 <sup>th</sup>	48	74

The group statistics above show that for all three variables, the urban schools had a higher mean score compared to the rural schools. In the urban schools the RC mean was twice that of the rural schools. However, this gap narrowed somewhat with regard to vocabulary, where the urban schools outperformed the rural schools by about 10% (51.7% versus 40.5%). Even so, the discrepancy in performance between the rural and urban schools is quite stark. For example,

the top performing learners in the rural schools (those at the 75<sup>th</sup> percentile) were performing almost at the same level as the low performing learners in the urban schools (those at the 25<sup>th</sup> percentile).

To test for significant differences between reading comprehension, vocabulary and academic performance between the two types of public schools, an independent samples t-test was conducted for each of the variables. The results are shown in Table 4.6 below.

**Table 4.6: Independent samples t-test for urban-rural schools**

	T	Df	Sig.(2-tailed)
RC. Equal variances assumed	-9.03	62	.000
Vocab. Equal variances assumed	-5.500	62	.000
AP Equal variance assumed	-6.284	62	.000

The results show that there were significant differences in performance between the two types of schools in terms of RC, vocabulary size and academic performance, with the urban schools significantly outperforming the rural schools on each of the measures.

Urban School B's performance was not as good as urban School D. To make sure that urban School B's performance was in fact significantly better than the rural schools, I did an independent samples t-test to test for significant differences between the rural schools on the one hand and School B on the other hand. The results did indeed confirm such differences, as can be seen in Table 4.7.

**Table 4.7: Independent samples t-test for urban School B versus rural schools**

	T	Df	Sig.(2-tailed)
RC. Equal variances assumed	-6.531	47	.000
Vocab. Equal variances assumed	-3.482	47	.001
AP Equal variance assumed	-2.571	47	.013

These results suggest that in Swaziland performance on variables such as RC, vocabulary and AP can be affected by the locality of a school. Schools in rural areas tend not to do as well as schools in urban areas.

#### **4.3 Differences in performance in reading comprehension, vocabulary and academic performance between genders**

The third research question sought to investigate differences in performance in reading ability, vocabulary and academic performance between the genders. Its corresponding hypothesis was stated as: *There are significant differences in performance in reading ability, vocabulary and academic performance between the genders.*

Before testing the hypothesis stated above I will present the descriptive results of the reading test, vocabulary and academic results according to gender in Table 4.8 below.

Table 4.8 shows that for RC there was a slight difference in performance between the genders. The females obtained a higher RC mean score compared to the males (females 40.8% and males 34.3%). In the vocabulary category both males and females had similar vocabulary mean scores. There was again a slight difference in academic performance mean scores between the genders as the males obtained a higher academic performance mean score compared to females.

**Table 4.8: Performance in reading comprehension, vocabulary and academic performance according to gender**

	Male (n=31)	Female (n=33)
RC mean	34.3	40.8
STD	17.55	14.71
Min - max	8 - 63	12 - 70
Percentile 25 <sup>th</sup>	14	31
50 <sup>th</sup>	38	40
75 <sup>th</sup>	51	51
Vocab. Mean	45.9	45.7
STD	10.85	8.84
Min - max	18 - 64	31 - 71
Percentile 25 <sup>th</sup>	39	39
50 <sup>th</sup>	44	46
75 <sup>th</sup>	54	50
AP mean	52.2	46.5
STD	17.55	16.69
Min - max	19 - 78	22 - 79
Percentile 25 <sup>th</sup>	36	34
50 <sup>th</sup>	52	44
75 <sup>th</sup>	71	53

An independent samples t-test was performed to test for significant differences between the genders in all three variables. The results are reflected in Table 4.9 below. Even though the descriptive statistics show some differences between males and females, the results of the independent samples t-test show no significant differences in performance in reading ability, vocabulary and academic performance between the genders.

**Table 4.9: Independent samples t-test for gender differences**

	T	Df	Sig.(2-tailed)
RC Equal variance assumed	-1.608	62	.113
Vocab. Equal variance assumed	.220	62	.827
AP Equal variance assumed	1.327	62	.189

#### **4.4 Relationship between reading attitudes, habits and access, and performance in reading comprehension and vocabulary**

The fourth research question sought to establish the relationship between reading attitudes, habits and access and performance of Form 5 learners in reading comprehension and vocabulary in urban and rural state schools. Its corresponding hypothesis was stated as: *There is a significant relationship between Form 5 learners' reading attitudes, habits and access, and performance in a reading comprehension test and vocabulary levels test in Swaziland's urban and rural state schools.*

As stated in Chapter 3, the 'attitude', 'habits' and 'access' scores were composites of several items. There were five reading attitudes items with a total of 10 marks, seven reading habits items, with a total of 14 marks and five access to reading resources items with a total of 10 marks. The descriptive results of the questionnaire relating to reading attitudes, habits and access to resources are presented in Table 4.10 below. The higher the score, the more positive the attitude to reading or the greater access there was to resources.

The descriptive statistics in Table 4.10 suggest that the learners perceived themselves as having positive reading attitudes, good reading habits and, surprisingly, they also claimed to have ready access to print material. However, in contrast, as we saw in Table 4.1, their reading and

vocabulary mean scores were disappointingly poor. For example, in RC the learners obtained a mean score of 37.6% while the reading attitudes mean score was much higher, at 68.8%.

**Table 4.10: Performance in the reading questionnaire**

	<b>All schools (n=64)</b>
Attitudes mean	68.8
STD	14.40
Min - max	25 – 100
Habits mean	67.2
STD	7.24
Min – max	50 – 80
Access mean	73.2
STD	10.46
Min – max	50 – 100

To see whether there was a relationship between these variables, a Spearman’s correlation was applied to the data and the results were as shown in Table 4.11 on the following page.

The inferential statistics in Table 4.11 show an interesting picture. Although reading attitudes, habits and access correlate with each other, they do not correlate positively with RC, vocabulary or academic performance. However, what we do find are two inverse relationships (i.e. significant negative correlations) between reading attitudes and reading comprehension ( $r_s = -.33, p = .008$ ) and between reading attitudes and academic performance ( $r_s = -.37, p = .002$ ). In other words, learners who claimed to have positive reading attitudes actually performed more poorly in RC and academic performance. Correlations were also done between reading attitudes, habits and access on the one hand and RC, vocabulary and academic performance on the other hand, in terms of urban/ rural schools and also gender. However, none of the correlations were significant and are therefore not presented here (but they are given in Appendices F and G respectively). The trend found in all these results goes against what is

typically found in the research literature (i.e. a positive relationship between attitudes and performance) and this anomaly will be taken up in the discussion section.

**Table 4.11: Correlation matrix between reading attitudes, habits and access, and reading comprehension, vocabulary and academic performance for all schools**

		Habits	Access	RC	Vocab.	AP	
Spearman's rho	<b>Attitude</b>	Correlation Coefficient	.620**	.350**	-.331**	-.224	-.373**
		Sig. (2-tailed)	.000	.005	.008	.076	.002
		N	64	64	64	64	64
	<b>Habits</b>	Correlation Coefficient	.	.383**	-.221	-.185	-.276*
		Sig. (2-tailed)	.	.002	.079	.143	.027
		N		64	64	64	64
	<b>Access</b>	Correlation Coefficient			-.056	-.123	-.088
		Sig. (2-tailed)			.662	.334	.488
		N			64	64	64
	<b>RC</b>	Correlation Coefficient				.575**	.661**
		Sig. (2-tailed)				.000	.000
		N				64	64

\* Correlation significant at .05

\*\* Correlation highly significant at .01

#### 4.5 Discussion of the results

The results of the current study indicate four notable trends across three of the four schools. There was very low performance in the reading test, low performance in the vocabulary and poor academic performance. The results also show discrepancies between the reading questionnaire and reading comprehension test. These aspects will be discussed in greater detail below.

##### 4.5.1 Reading, vocabulary and academic performance

As stated above, the results of the current study showed a generally low reading performance, weak vocabulary and poor academic performance for rural Schools A and C, and for urban School B. The descriptive statistics in Table 4.1 show that it was only urban School D that obtained above 50% mean scores in RC, vocabulary and AP. As highlighted in the literature

review section that reading exposes learners to more vocabulary and that learners who lack a wide vocabulary fail to understand what they read (Bromley 2004; Ho & Lien 2011), the three poor performing schools performed far below the expected level in the three variables mentioned above. Even though urban School B performed better than the rural schools, its mean performance on all the variables was still fairly low.

There are many reasons that may be responsible for the poor performance of the three state schools in RC, vocabulary and AP. One reason may have to do with resources. Schools A and C were particularly poorly resourced. The locality of these two schools did not encourage reading in that, apart from the lack of print material in Schools A and C, there were also no bookshops, community or national libraries in the areas. This creates a lack of exposure to reading and lack of visibility or accessibility to print material, factors associated with poor reading ability. The locality of Schools A and C also lacked reading role models because the majority of the parents and guardians' levels of education were low. Briggs (1987) points out that children who do not have positive reading role models are likely to read less and struggle with school assignments. The low reading ability and poor academic performance in this study seem to support the views raised by Briggs above.

Table 4.7 shows a significant difference in performance in RC and vocabulary between urban School B and rural Schools A and C. As stated earlier, this may be due to the fact that urban school B was better resourced than Schools A and C. The fact that urban School B was better resourced showed in that its performance differed from the poor performing schools, Schools A and C. However, though School B was in an urban locality where learners are normally exposed to more reading materials, quality teaching and positive reading role models, this school did not do as well as urban School D. As will be shown in Chapter 5, the qualitative aspect of this study, the low performance of these schools in the three variables may also be caused by the fact that reading is not explicitly prioritized in these schools, as evidenced by the lack of reading slots in their timetables. The teachers themselves seemed to be unaware just how poor their learners' reading levels were and seemed to assume that at high school learners are able to read, which unfortunately was not the case, as shown in Table 4.1.

Furthermore, the poor reading ability and weak vocabulary in Schools A, B and C may have affected their performance in all the other school subjects as they obtained low academic performance mean scores. As pointed out by Horbec (2012) in the literature review of this study, students' reading ability is strongly linked to AP, and the performance of School D in RC and vocabulary shows that students with stronger reading ability are likely to have a richer vocabulary and also cope with the other subjects offered in the curriculum. However, it is interesting to note that even though School D outperformed the other schools, the fact that the best performing learners, at the 75<sup>th</sup> percentile, obtained a slightly above mid-way mean score in RC and vocabulary suggests that even in this school learners had some reading and vocabulary problems.

As depicted by the RC, vocabulary and AP mean scores in Table 4.1, School D showed relatively better reading ability, better vocabulary and performed better academically compared to Schools A, B and C. In terms of print material, School D was not as well-resourced as School B which had a library and also access to the national library in town. Although the richness of a school's resources is a contributing factor, it is clear that other factors also come into play when considering school performance. The superior reading ability by School D may also be influenced by SES factors given that this school enrolls learners from more affluent families who have exposure to books at home and who hear English spoken frequently. Learners in School D may also have a better reading ability because of good leadership at the school and because the overall quality of teaching at the school may be better, with the teachers emphasizing and modeling reading in their school or the learners may themselves engage more in reading and take out books from the national library to read. These are all factors that were beyond the scope of this study.

As shown in Table 4.4, the correlations between RC, vocabulary and AP show that all three variables are robustly related, with the strongest correlation between reading comprehension and academic performance ( $r_s = 0.661$ ). This confirmed the findings of other research studies (e.g. Agak 2012; Horbec 2012) that there is a significant relationship between reading ability and academic performance. In the same vein, as stated in Chapter 2, the significant correlation

between reading comprehension, vocabulary and academic performance also suggests that the relationship between reading, vocabulary and academic performance is one of mutual growth and influence.

#### **4.5.1.1 Performance in reading comprehension questions**

The descriptive statistics in Table 4.2 give a clear picture of the learners' performance in the different types of reading comprehension questions across the four schools. The mean scores show that, with the exception of School D, the other schools performed poorly in all the different types of RC questions, though School B was a step ahead of the rural schools. Literal questions are typically the easiest type of comprehension question since they relate to information directly stated in the text. Although learners from Schools A, B and C performed poorly across the reading comprehension questions, as expected their reading ability was a bit stronger at the literal level and weaker at the inferential and evaluative levels. Even so, their performance at the literal level was still extremely low. For example, with means of 19% and 25% respectively for literal questions, Schools A, and C did not even make it beyond the 25% mark, which is considered a marker of non-reader status and their mean scores were even lower at the other RC levels. With a 46% mean for literal questions, School B also showed low reading ability.

It was surprising that at Form 5, learners failed to understand and provide correct answers for literal questions as at this stage of their schooling they should be quite adept at understanding basic information in texts that they read. Even though the inferential and evaluative questions are a bit challenging in that they need a well thought-through response, the performance of Schools A, B and C at these levels was disappointing as the learners performed far below the expected level. This suggested that they lacked exposure to print and experience with higher order questions, and that their teachers did not teach reading comprehension. In the evaluative questions, Schools A, B and C obtained a mean of 5%, 9% and 23% respectively. This suggested that learners were unable to engage with more cognitively challenging questions.

School D outperformed the other schools in all the four types of RC questions. The learners' performance in the literal, inferential and evaluative questions seemed to be consistent as they

recorded a 63% mean in the literal, inferential and evaluative questions. This school excelled in the last reading comprehension question, the reading vocabulary question, and for this question the same was true for School B. This suggests that the questions here may have been within these learners' vocabulary range. However, in spite of the superior performance of School D in the entire RC questions, the learners still showed signs of vulnerability in reading. As shown by the percentiles in Table 4.2, the top performing group of learners in School D in the literal questions did not score above 70%. This suggests some vulnerability because at Form 5, learners are not expected to struggle with literal questions. The percentile figures also show that Schools B and D achieved high scores in the reading vocabulary question as the lowest performing group of learners in each of these schools scored above 70%. However, they may have performed well in the reading vocabulary question because this question was easy. The learners were given a list of words from the RC passage and were expected to explain each word as used in the passage.

With the exception of Schools B and D, the poor performance of Schools A and C in the reading vocabulary question suggests that they had a poor vocabulary and serious reading problems. Here, in Schools A and C, the lowest performing group of learners, at the 25<sup>th</sup> percentile, scored 5% and 10% respectively. Such performance shows weak vocabulary among the learners, and this was also reflected in their performance on the vocabulary levels test.

Overall, the below expected reading mean in the four types of RC questions shows that the learners have poor reading skills. They seemed to find reading a challenge yet at high school, learners need to be able to read fluently and with meaning in order to 'read to learn'. Indeed, at high school, reading should be a useful learning tool for accessing information and learning from their content subjects. Their low reading vocabulary means also suggest poor knowledge of words. The poor reading ability and weak vocabulary implied that they may perform poorly academically, as research shows that learners who read much and understand what they read are likely to do well in school tests (Horbec 2012; Igwe 2011).

#### 4.5.1.2 Vocabulary levels

The learners in all the four state schools performed below the expected level in vocabulary. It was expected that at Form 5 all the learners should demonstrate mastery of the high frequency words and obtain a mean above 60% in the mid frequency words, 5000-level. It is important for learners to master the high frequency words because knowledge of such words helps learners to function effectively in English (Mokhtar 2010). Knowledge of the mid frequency words is also important as it helps learners to read textbooks and other academic reading material with understanding, a factor which may result in good academic performance. Zunshine (2013) points out that students with rich vocabulary do well in school and are better prepared for college. She further explains that at high school, learners encounter complex language in the various subjects. So if students know the various levels of word knowledge they tend to perform better at school. Staehr (2008) points out that knowledge of the high frequency words suffices for basic interpersonal communication but is not enough to help one understand written texts. For example, Nation (2006) estimates that the 2000-word level gives a lexical coverage of 85% of words in a text and such coverage is not enough for text comprehension. Table 4.3 shows that with the exception of the urban state schools at the 2000-vocabulary level, the schools' performance in all 5 levels of word knowledge was poor. For example, rural schools A and C did not reach the 85% mastery mark at the 2000-word level and their performance was even lower in the other levels of word knowledge.

I did not expect that all the four schools would fail to obtain a mid-way mean at the 5000-level of word knowledge. Performance at the UWL was a bit better, especially for Schools B and D as they obtained mean scores of 53.8% and 63.8% respectively. Even at this level of word knowledge, Schools A and C performed poorly. Knowledge of academic words is important because learners do not only need the type of vocabulary that can help them in basic interpersonal communication skills but they also need vocabulary that can help them to read texts books and other academic material. For example, Nation (2006) points out that the 5000-word level represents the upper limit of the general high frequency words and the low frequency words at the UWL help students to read their textbooks with understanding. This

suggests that in addition to thorough knowledge of the high frequency words, learners at high school must also have good knowledge of the 5000-vocabulary level and UWL because knowledge of these words is likely to contribute to understanding of what the learners read at their level.

The percentile figures indicate that at the 5000-level, learners at the 75<sup>th</sup> percentile in Schools C and D obtained a mid-way mean and the rest of the schools' top performing learners fell below the mid-way mean mark. The percentiles also show that at the UWL, performance seemed to improve as the top performing learners obtained above mid-way mean scores with the exception of School C. Performance dropped drastically at the 10 000-word level. Even though the poor performance for all the four schools at the 10 000-word level was not surprising as the participants in this study were ESL learners, their performance seemed very low. Table 4.3 shows that none of the schools obtained a mean above 10% at this level. The percentiles show that the poor performing learners, at the 25<sup>th</sup> percentile, across the four schools obtained 0% while the top performing learners, at the 75<sup>th</sup> percentile only scored 11%.

The weak vocabulary seen in this suggests that the learners would struggle to read texts with understanding, leading to poor academic performance. This is because research indicates that there is a reciprocal relationship between reading, vocabulary and academic performance (Stahl 1999). Kian et al. (2011) explain that to read texts with ease, learners should have acquired mastery of the high and mid frequency words. The weak vocabulary shown in Table 4.3 may perhaps be one of the reasons for poor performance in the reading test as discussed in § 4.5.1 above. The low performance in the inferential and evaluative questions may be due to the fact that learners struggled to understand what they read due to a combination of inadequate vocabulary and lack of experience with higher order questions. The low vocabulary knowledge is also evident in the reading vocabulary scores shown in Table 4.2. In this type of question, Schools A and C scored below the mid-way mark as they did not give the correct meaning of the list of words from the passage they read.

#### 4.5.1.3 Academic performance

There was poor academic performance in three of the four state schools. As stated in § 1.3.10, any score below 50% is regarded as a fail and any score from 60% and above is regarded as a credit pass in Swaziland. Table 4.1 shows that, with the exception of School D, the other schools obtained disappointing mean scores. Schools A, B and C scored below 50% and the percentiles show that for Schools A, B and C, the poor performing group at the 25<sup>th</sup> percentile, obtained a mean of 27%, 40% and 31% respectively while the top performing learners in Schools C and B obtained 50% and 54% respectively. For the top performing learners to have an AP mean in the region of 50% suggests that the learners performed below the expected level. School A performed the worst academically, as the learners at the 75<sup>th</sup> percentile obtained a mean of 46% only. These descriptive statistics suggest that though urban School B did not perform as well as urban School D, it still performed better than the rural schools.

However, contrary to the AP of Schools A, B and C, School D performed better academically. This is demonstrated in their academic AP mean and the percentiles. For example, Table 4.1 shows that School D obtained an academic mean of 73.4% showing that the performance of the learners was satisfactory. The standard deviation for AP of School D which reflects dispersion of scores within the group is small and this indicates little variation within the group. Such an outcome in this school implies that the learners were a fairly homogeneous group. The gap in performance between the learners seemed very minimal, something which is uncommon in most schools. For example, the minimum AP score in the group was 68% and the maximum score was 79%. The homogeneity of the learners is also demonstrated by performance at the percentiles. For example, the low performing group obtained an academic mean of 71% while the best performing group of learners at the 75<sup>th</sup> percentile obtained 75%. These figures show that there was a little difference in the performance of the learners. The main reason for such homogeneity may be in the way learners were admitted into the school. This school has a history of admitting the best/ top performing learners in the country and their Form 5 results over the years show that few or none of the learners have ever failed the exams.

#### **4.5.1.4 Relationship between reading comprehension, vocabulary and academic performance**

The findings of this study on the relationship between RC, vocabulary and academic performance confirmed findings from other studies that there is a significant relationship between the three variables.

The relationship between RC and vocabulary was strong at  $r_s = .574$  and confirmed the findings given in § 2.2.8, by Joshi and Aaron (2000). It supports the theoretical assumption that the relationship between reading and vocabulary is one of mutual growth and influence. In the same vein, the relationship between RC and AP was also strong as shown in Table 4.4. This suggests that learners with strong reading abilities are likely to pass school tests. The strong correlation between RC and AP in the current study seem to confirm the findings of Horbec (2012) stated in § 2.3.2. The results of the current study further show a strong and statistically significant correlation (.59) between vocabulary and academic performance. The finding of the strong correlation between vocabulary and academic performance in this study appears to agree with the finding by Brownell (2013) that students with large vocabulary are associated with high academic achievement. These findings suggest that reading comprehension ability, vocabulary and academic performance are interdependent. The findings imply that for students to pass school tests, they must have well developed reading skills and that they must also have large vocabulary to help them read texts with ease. The importance of reading and vocabulary discussed above is a clarion call for schools in Swaziland to address this need (This will be discussed further in last chapter of this dissertation).

#### **4.5.2 Urban versus rural schools' performance**

This section discusses differences in performance between reading comprehension, vocabulary and academic performance in the two types of schools. This discussion will start with differences in reading comprehension followed by differences in vocabulary knowledge and end with how the urban and rural schools differed academically.

The statistics in Table 4.5 and Table 4.6 show notable and significant differences respectively in RC between the urban and rural state schools. The urban schools performed better than the

rural schools in RC, with the urban schools reading comprehension mean two times higher than that of the rural schools. The percentiles between the two types of schools show how poorly the rural schools performed in comparison to the urban schools. For example, learners at the 75<sup>th</sup> percentile in the rural schools obtained a RC mean of 35% while in the urban schools at the 25<sup>th</sup> percentiles learners obtained a mean of 42%. In other words, the best performing learners in RC in the rural schools were poorer than the lowest performing learners in the urban schools. This was not surprising as research shows that rural schools normally lack reading resources and their quality of teaching is not as good compared to urban schools.

In terms of vocabulary performance, the percentiles give disturbing figures between the two types of schools. For example, the rural schools' vocabulary performance at the 75<sup>th</sup> percentile shows that the best performing learners obtained a vocabulary mean of 45% while in the urban schools, learners at the 25<sup>th</sup> percentile obtained a vocabulary mean 46%. Similar to performance in RC, these vocabulary scores show that in the rural schools the best performing learners performed more poorly than the worst performing learners in the urban schools. The same was almost true in terms of academic performance in the rural schools where the best performing learners at the 75<sup>th</sup> obtained 48% while in the urban schools the worst performing learners obtained 45%.

The t-test showed that the urban schools performed significantly better than the rural schools. There are many possible causes for the differences in performance in RC, vocabulary and AP in the urban and rural state schools. These may range from exposure to print resources, lack of reading role models, absenteeism and the quality of teaching and high levels of poverty.

The urban schools, located in the city where government provides books to the national library, may have performed better because they have ready access to print materials unlike the rural schools. As the urban schools are located in the city center, learners from these schools could easily go to the national library to read and also borrow books to read at home. As stated in the research literature, access to a wide range of reading materials helps learners to acquire and maintain fluent reading skills and also expose learners to a wide range of vocabulary (Mokatsi 2005). For example, urban School B has a functional library making it easy for the learners to

acquire books at school to read. The urban schools' ready access to libraries increases their exposure to print material. On the other hand, rural Schools A and C are located in remote villages where there are no community libraries in their vicinity and the schools themselves are poorly resourced. This limits the learner's access to print material in the schools and at home.

The issue of the availability or absence of reading role models may also be a contributory cause for the differences in performance in RC, vocabulary and academic performance. As stated in § 2.4.1, Briggs (1987) explains that positive role models and books help learners to set educational goals and take reading seriously, the rural schools may compensate for the lack of positive role models and lack of print materials for their marginalized learners by creating a conducive atmosphere for learning. As the SES for the learners in the rural schools does not allow them to have ready access to print, the schools can make a collection of print material from magazines and newspapers for the learners to read in their own time. This will be taken further in Chapter 6 of this study.

When the schools were visited, it was noted that the rate of absenteeism was higher in the rural schools. This was due to factors such as the rural schools being inaccessible and the administrators did not adopt a strict approach against absenteeism. As a result, the learners were getting far less teaching and learning time. This affected performance as some learners missed lessons in the course of the year. Even though both types of schools had qualified teachers, the quality of teaching may also be responsible for the differences in performance. The urban school teachers seemed more committed in their duties. It was reported that they had lessons on weekends and teacher absenteeism was minimal compared to the rural schools.

#### **4.5.3 Differences in performance between genders**

As shown in Table 4.8 both the males and females in this study had weak reading ability. The descriptive statistics show that neither gender obtained a reading comprehension mean above 41%. Their low RC mean suggested that in neither gender were there avid readers. Poor performance from both genders was also observed in the vocabulary test. Both males and females had similar mean scores. Their 45% vocabulary mean is far below the expected level of

Form 5 learners. The poor reading comprehension and vocabulary performance shows that both genders had reading problems.

The t-test performed showed that there were no significant differences between the genders in all 3 variables. This confirmed what had been found elsewhere in research that there may be differences in performance at primary school but as the learners get to high school the differences in performance between genders disappear (State of the Union 2016; Boltz 2009).

Research shows that as males and females grow, they perform the same way. However, in the context in which this study took place, I expected females to perform better than the males in all three variables (i.e. RC, vocabulary and AP). This is because girls are more focused on schooling than boys in Swaziland. Boys tend to value participating in 'masculine' and cultural activities where information is passed through the word of mouth. I expected the girls to outperform the boys because in Swazi society literacy and masculinity are often regarded as incompatible. Boys tend to give little attention to reading and schooling. Girls on the other hand, seem to enjoy reading and going to school.

From the background given above I expected the findings to show clear difference in performance between the genders in all three variables. However, that was not the case. As stated above, the lack of significant differences, especially in reading comprehension and vocabulary, confirmed the views given by Lynn and Mikk (2009) on gender differences. Lynn and Mikk (2009) explain that gender differences in reading comprehension and vocabulary show in the first three grades of primary school but at high school gender differences are negligible. Brozo's (2011) analysis on causes of gender differences at primary school shows that at an early age boys commit more to electronic gadgets such as play stations, cell phones and magazines while girls start reading magazines and children's literature at an early age.

#### **4.5.4 Reading attitudes, habits and access, and RC, vocabulary and AP**

Before discussing the results relating to the reading questionnaire and RC, vocabulary and AP, I will briefly recap the three terms: 'Attitudes, habits and access.' As defined in Chapter 2 of the current study, reading attitudes refer to a system of feelings related to reading which causes

the learner to approach or avoid the reading situation. It can also be defined as a state of mind, accompanied by feelings and emotions that make reading more or less probable (Yamashita 2004; Briggs 1987). Reading habits refer to the behavior which expresses the likeness of reading of individual types of reading and tastes of reading (Yamashita 2004). The last term 'access' refers to the availability of quality literature in the classroom, the school, community or libraries. Children with adequate access to books have many books to select from on a daily basis both in and out of school (Tella & Akande 2007).

The learners in this study claimed to have very positive reading attitudes, reading habits and access to print material. This is shown in Table 4.10 where the learners obtained a high reading attitude mean, high reading habits and also high access mean. These claims suggest that the learners were avid readers who enjoyed reading. It is also notable that in the attitude and access categories the learners scored 100% and also obtained a very high maximum mark as well in the reading habits category. These high habits and high access scores suggest good reading practices and the fact that learners had many books to choose from when they want to read. This painted a picture of them having a print-rich environment at home and at school.

However, a comparison of their reading attitudes, reading habits and access means with their RC, vocabulary and AP means indicates a big discrepancy between claims and performance. This suggests that the learners may have a false perception of themselves regarding reading, since their performance on the variables that measure reading and academic proficiency are low. The low reading comprehension means suggests that the learners have serious reading problems and that some of them are non-readers, as research points out that learners who score below 25% in a reading test are non-readers. The RC mean for all the four schools is almost half of their reading attitude mean, reading habits and access means indicating a serious mismatch between perceptions and performance.

There was an expectation that if the learners had positive reading attitudes, reading habits and high access to books, they would have a rich vocabulary as well. However, this was not the case as there was no correlation between these factors and their vocabulary size.

There was also a sharp contrast between the learners AP mean and their reading attitude, habits and access means. Mokatsi (2005) opines that avid readers do not only get their literacy skills strengthened through regular reading but they also pass school tests. So due to the high attitude, high habits and high access means, the learners implied that they read a lot and loved reading. It was therefore expected that their positive reading attitudes, reading habits and access would reflect in a high academic performance mean. However, a mismatch again occurred between low academic performance and high reading attitudes, habits and access scores.

Although Table 4.1 shows that reading attitudes, reading habits and access correlated with each other, they did not correlate with RC, vocabulary and academic performance, where significant negative correlations obtained between reading attitudes on the one hand and reading comprehension and academic performance on the other hand. These results do not support what has been found elsewhere in research.

There may be many reasons for the learner's false perception of themselves with regards to reading. These may range from giving socially desirable responses, normative values and a lack of skill to judge their reading abilities correctly. One possible reason for the mismatch between the reading questionnaire scores and actual performance in the reading test, vocabulary test and academic performance is that the learners may not have given genuine responses in the reading questionnaire. They may have wanted to give responses that would paint a good picture of themselves in the eyes of the researcher. In other words, their responses were given to impress the researcher into thinking that they were avid readers with positive reading attitudes. The claim of having positive reading attitudes may also be caused by prevailing normative values. With the low levels of reading in their environment they may have thought that reading one book a year makes one a good reader. They may not be aware that in some societies it is a norm to read many books within a month. Having made it to Form 5 in a community where many adults have very low literacy levels might suggest that they are indeed literate and hence 'good readers', not having a broader frame of reference of what it really

means to be an effective and avid reader. So their lack of exposure to how much reading other learners engage in may have given them a false perception of themselves as readers.

Skilled readers are able to tell what it means to be able to read and how frequently one should read. The learners in this study lacked the skill to judge correctly their reading abilities, hence their claim that they have positive reading attitudes, good reading practices and high access to print material. The learner's false perception of themselves in this study reflected what is called 'the Kruger Dunning effect'. This refers to a seemingly pervasive tendency of poor performers to overestimate their abilities relative to other people, and to a lesser extent, for high performers to underestimate their abilities (Kruger 1999).

#### **4.6 Conclusion**

This study sought answers to four research questions relating to Form 5s reading ability, vocabulary, reading attitudes and academic performance. This chapter presented the results of the study, identified the main findings and also provided an in-depth discussion of the findings.

There are four main findings. The results showed a strong correlation between reading comprehension, vocabulary and academic performance. The strongest correlation was between reading comprehension and academic performance. These findings imply that the learners who have stronger reading abilities are likely to perform well academically. The results also showed significant differences between urban and rural state schools in terms of RC, vocabulary and AP. The urban schools outperformed the rural schools in all three variables given above. This study also explored differences in RC, vocabulary and AP between genders, but the findings showed no significant differences between the males and females. On the relationship between reading attitudes, habits and access, and performance in RC, vocabulary and AP, the results showed that the learners' reading attitudes, habits and access correlated with each other but did not correlate with RC, vocabulary and AP.

The strong correlation between RC, vocabulary and AP was expected and it confirmed what other researchers have found. The findings of significant differences in performance in RC, vocabulary and AP between urban and rural schools also confirmed what has been found

elsewhere. Chapter 5 will present a qualitative perspective on the current study to help us better understand the quantitative findings in Chapter 4.

## CHAPTER 5

### REFLECTION ON CLASSROOM OBSERVATIONS

#### 5.0 Introduction

Chapter 4 presented and discussed the findings of the quantitative component of the current study. To complement the quantitative component, this chapter presents the qualitative aspect of the study. The qualitative aspect was based on classroom observations and 'snapshots' of the data that was collected in the Form 5 classes. Data was also collected using short informal interviews with the teachers in the English Department. This chapter uses findings from the classroom observations to link issues relevant to reading ability, vocabulary and academic performance in four of Swaziland's public schools. The qualitative aspect of the study helped me to situate the findings presented in Chapter 4 within a more detailed context.

This chapter briefly recaps on Chapter 4, presents the procedures followed during the fieldwork, describes the characteristics of the schools where the observations were conducted and also discusses the good and not so good classroom practices observed during the lesson. Thereafter, conclusions drawn from the observations are presented.

This chapter seeks to address the research question which was qualitative in nature:

*What is the relationship between lesson content and reading performance?*

As stated above, I used this question to complement the quantitative research questions given in Chapter 4 regarding reading ability, reading attitudes and vocabulary and academic performance. I hoped that observing classroom practices would give me a deeper understanding of the reading and academic performance situation in the public schools.

## **5.1 Contextualizing the findings**

As stated in Chapter 4, the main findings of the current study were poor reading ability, low vocabulary and poor academic performance in the state schools, particularly so in the rural schools. I felt there was a need for me to understand what was happening in the classrooms to make sense of these poor outcomes.

### **5.1.1 Procedures**

I visited one rural and one urban school to observe an English Form 5 lesson. I used the same procedure to observe the lessons in both state schools. As there are many things that happen in a classroom, I used what Hopkins (2002) calls an open observation approach to collect data. In this approach, focus is not only given to the instructor but the learners, the lesson and the classroom environment as well. My observation was quite similar to the one given by Rendall and Thomton (2005) where the observer assumes the role of a non-participant observer and never engages in any interaction with the individuals being observed. I approached the session with an open mind and tried to avoid personal biases that could negatively affect the results.

The classroom observation was conducted in three phases, as stated in Richard and Lockhart (1994), namely the pre-observation stage, observation stage and post-observation stage. The pre-observation occurred before the actual classroom observation session. During this phase the teachers and I sat down to prepare for the classroom observation. I took time in the pre-observation phase to explain the purpose of the observation to the teachers in whose lessons the observation would take place. After that I asked them to sign consent forms to show that they agreed to let me observe their lessons. In Swaziland's public schools, learners are not expected to sign consent forms, permission to participate in a research study is given by their principals and the principals had agreed to let me do the study with the learners. In the pre-observation phase the teachers and I planned for my best seating position in the class, where I could be during the observation without disturbing the lesson.

In the second phase, the actual lesson observation, I collected data about the classroom environment as well as the ongoing activities. During this phase I took note of print material on

the classroom walls that could promote literacy learning. In addition, I focused on the teachers to see how they introduced, developed and conducted the lessons. I also wanted to see how much attention was paid to vocabulary during the lesson. In addition, I focused on the learners to see how they participated in the lesson, their reactions as the story was introduced, developed and concluded. I also observed how the learners reacted to unfamiliar words in the lesson and if they had a chance to develop and use the new words learnt during the lesson. To collect information about the lesson, I carried a notebook where I documented everything that I thought would be helpful during analysis.

In the post-observation stage, I quickly skimmed the notes taken during lesson observation before having a discussion with the teacher. Our discussion focused on how literacy was enacted and promoted in the school and how much print material learners have to do extra reading. We also discussed ways in which learners could learn and retain new words in the lesson to help them to develop a rich vocabulary that could assist them to read with understanding. In the post-observation stage, I also sought to find out if reading comprehension was explicitly taught in the school and if they had a reading period in their time table. Our discussion also included library issues where I asked if the school had a functional library and how often the learners were encouraged to take out books and read. The last thing that we discussed in the post-observation phase was how the learners have been performing in the subject during the previous monthly tests.

## **5.2 Observations at the schools**

The observations were carried out on different days towards the end of 2013. For example, at each school I looked at the buildings, literacy materials, lesson content and presentation, teacher qualification, number of learners and teachers within the school and previous academic performance. I felt that paying attention to the structural characteristics of the schools would give indicators of why the schools performed the way they did.

The characteristics of schools are to some extent determined by the socio-economic status of the surrounding community. For example, if a school is located in a community where most of the parents of the learners are unemployed, such a school is likely to have learners from low-

income backgrounds and learners from such backgrounds normally lack exposure to print resources (Alschul 2012). Schools from such backgrounds are poorly resourced if there is no government intervention to provide reading materials. The opposite is true of schools located in communities where parents hold white collar jobs, as in many urban areas. For this study the schools were chosen to represent two different socio-economic backgrounds, namely low-income and more affluent middle class backgrounds.

### **5.2.1 Observation in rural School A**

I visited rural School A on the first day of the observations in November 2013. The school is in a fairly inaccessible village in the Lubombo region. There is no clear road leading to the school and transportation to the school is scarce. As stated in Chapter 3, some learners have to walk on foot for about 9 kilometers to get to the school. The village where this school is located speaks siSwati and relies on small scale farming for a living. The surroundings of the school show that there is poverty in the village and according to the school principal, most of the parents are unemployed. I drove on a dirt road for about 9 kilometers before getting to the school. I carried a cell phone to take pictures of the school buildings and classrooms as I had been given permission to do so by the school principal. When I arrived at the school I was directed to the principal's office where I reminded him of my request to observe a Form 5 lesson. He informed me that the school had an enrollment of about 257 learners and 22 teachers. The majority of the teachers were PGCE holders and qualified according to the Ministry of Education to teach at high school. The school had Forms 1-5, with Forms 1-2 being double stream. The school fees for the year were below R3500 to accommodate parents who could not afford the normally high school fees in Swaziland's public schools.

As shown in Figure 3.1 in Chapter 3, rural School A had five blocks of modern buildings and its premises looked clean. Though the buildings were modern, they had not received a fresh coat of paint in recent years. Each classroom had functional window panes and doors, which I felt would enable teachers to keep print materials safely in the classroom. However, the school did not have a functional library where learners could read or take out books to read at home.

The observation of the lesson in this school took place in the morning, from 9:00 to 9:40 and the duration of the teaching time was 40 minutes. The teacher whose lesson I observed in this school was 30 years old and had been with the school for 3 years. She had a Post Graduate Certificate in Education (PGCE) from the University of Swaziland and had taught Literature and English in the school for 3 years.

Before the teacher began the lesson, she informed the learners that I would be with them for the entire period. I sat at the back to have a clear view of the learners and to ensure that my presence did not disturb the lesson. Despite the surrounding poverty, all the learners were in full school uniform and appeared ready to learn. There were 20 learners in the class, a manageable class size for the teacher. The learners sat in pairs and each learner had a desk and a chair. There was also no sharing of books and the books looked neatly kept and fairly new, which raised some doubts as to how frequently the learners had actually read those books. This is because towards the end of the year, the time in which I visited this school, the learners should have read the book many times and I expected that to show in the physical appearance of the books. The school ensured all the learners had the prescribed books through the book rental system. However, I noted that the classroom walls were not covered in any print material that could promote literacy or that signaled that this was an English language classroom. As shown in Figure 3.1, the only print materials were six sheets of paper stuck on the notice board, five of which displayed the test schedule for the month and the other sheet was a class timetable. I noticed from the timetable that there were 9 periods of 40 minutes but among those periods there was no reading slot. From what I saw it appeared that reading was not given prominence in the school.

In the observation phase I focused on how reading and vocabulary were enacted, how the lesson was developed and the learners' reaction to the story. As stated in Chapter 3, in rural School A, I observed a Form 5 literature lesson based on a short story from a collection entitled *Into the wind*. It had fourteen stories but the syllabus demanded that the teacher should choose ten stories to teach to the learners. The teacher had informed me in the pre-

observation phase that they had already done half of the stories. When I looked at the short story anthology, I felt that it was manageable as each story was less than ten pages.

The lesson that I observed was based on a story entitled *The Hitch-hiker* by Roald Dahl. I had taught the story to my former Form 5s and I found it exciting and my learners had enjoyed it. The teacher began with a short preview, informing them that the story was about a BMW driver who was moving to London and on his way he gave a ride to a strange man who got him in trouble with the police by encouraging him to drive his car over the speed limit to verify if it could do 129 miles an hour as stated in the manual book. The learners seemed to find the preview exciting and they remained captivated during the oral introduction.

Before the teacher read the story she gave a detailed summary and discussed the themes and the plot with the learners. She then gave them a question she thought would help them understand the story and also wrote 5 key unfamiliar words found in the story. The question she wrote on the board was: *What in your opinion makes the hitch-hiker a likeable character in spite of who he is?* From my previous experience of teaching the text, I felt that she needed to clarify the question a bit more, especially the last part. I felt she first needed to draw the learner's attention to who the hitch-hiker is, how he is introduced and described in the story, and what inferences the reader can draw about the character from the descriptions. The unfamiliar words she wrote on the board were: *hitch-hiker, weird, fingersmith, mean and dreaded*. She explained these words and asked them to write the words and their meanings in their literature class work exercise books. I checked a few of the learner's exercise books to see if this was a regular activity in the lesson and I discovered that there were not many such activities in their exercise books. I felt that the teacher asked the learners to write the words for my benefit. Before she read the story she demonstrated on the board how the given words could be used to construct grammatically correct sentences.

The teacher was the one who read the story throughout the lesson and did not ask the learners to read. The way she began reading was well done and helped to draw the learners into the story. The first paragraph in the story reads as follows:

*I had a new car. It was an exciting toy, a big BMW 3.3 Li, which means 3.3 liter, a long wheelbase fuel injection. It had a top speed of 129 miles per hour and a terrific acceleration.*

As she read this paragraph, her tone of voice captured pride in the car and also showed admiration for the car. The learners seemed interested as some of them said 'wow', expressing admiration for the car. However, I was concerned that the teacher did not ask questions or have the learners express their feelings about the story, nor did she explain some unfamiliar words she came across as she read. For example, she read the line:

*The powerful engine growled and grunted impatiently at slow speeds.*

As she continued to another line, one learner shot up his hand asking for the meaning of the words 'growled and grunted'. Even though the teacher explained these words, I felt that more could have been done to develop vocabulary throughout the lesson. Her inability to draw the learner's attention to the figure of speech used through the words 'growled and grunted' seemed a lost learning opportunity. She could have used this alliteration to ask the learners to describe the sounds made by cars when moving fast or slow. This would have helped the learners to visualize the movement of the car.

For a while I felt that she had forgotten to refer to the question she had given earlier on what makes the hitch-hiker a likeable character. My concerns were allayed later when she read a paragraph describing the character:

*I saw a man thumbing a lift...he was a small ratty-faced man with grey teeth. His eyes were dark and quick and clever like a rat's eyes, his ears were slightly pointed at the top.*

After reading these lines she stopped and asked learners to express their feelings about the description of the hitch-hiker. This drew various responses from the class as some said that it sounded funny, while others found the physical description scary and weird. Before she posed this question, I noted that the learners were not all concentrating fully on the lesson as some kept chatting softly to each other. When the forty minutes elapsed, the teacher stopped

reading. I noted that no clear summary was given at the end, nor were the learners given any home work.

In my post-observation phase, the teacher informed me that they (i.e. the teachers) had not considered having a print-rich environment in the classroom and they also did not have time to teach reading because their timetable was already very demanding. I also noticed that there was an assumption that if learners read in class, they would be able to learn new words, hence the little effort to teach and write unfamiliar words that they came across in the story (this will be discussed in greater detail in Chapter 6). The teacher also did not give strategies that would help the learners infer word meanings from textual clues or take responsibility for looking up and learning new word meanings. Such strategies may include asking learners to read ahead and pick up unfamiliar words and look up their meanings in a dictionary and also fostering independent learning. It seemed as if the school assumed that at Form 5, there was no need to teach reading as the learners could read already.

I also requested to see the scheme book where the monthly scores for the various tests are recorded. I noticed that over a 3-month period, the performance was low in all the subjects. Literature scores indicated that the highest score in the 3-month test cycle was 55%. The teacher informed me that the learners had performed poorly in literature in the Form 5 national examinations. When I looked at the Form 5 literature results for the year 2012, I realized that none of the learners who wrote literature obtained 50% or above in the national exams. I felt that the neglect of reading in the school was one of the causes of the weak performance in the subject.

In the post observation stage we further discussed ways in which the teacher thought the learners may learn and retain new vocabulary. She listed four ways that she thought may help the learners to learn and retain new vocabulary as they read. Reference to a dictionary was the main way she thought that the learners could learn new words. She pointed out that learners should not just look up the words in a dictionary but they must also enter the new words in a vocabulary note book, an exercise that may help them to retain the new vocabulary. She further pointed out that learners may learn new words in isolation or from the context in which

they are used and later write down their meanings to read them later so that they remember the words learnt. Last but not least, the teacher pointed out that learners need to keep vocabulary cards where they may write the new words, their meanings and also match the new words with their synonyms before using them in writing.

#### **5.2.1.1 Classroom practices and lesson evaluation**

This subsection focuses on the strengths and weaknesses of the teaching practices in rural School A. I thought that analyzing the teaching practices may help me explain or identify possible causes of the poor reading and poor vocabulary given in the findings in Chapter 4.

The lesson contained both some commendable and some less commendable teaching practices in rural School A which may impact positively and negatively on reading and vocabulary performance. To her credit, the teacher read fluently and with feeling, and she seemed to understand the story well herself. For example, one could easily form a mental picture of the car from her intonation while reading, which depicted the beauty of the car and the pride of the owner for having such a powerful machine. At the beginning, the teacher gave a detailed summary of the story where she discussed the theme, plot and did characterization with the learners. I also felt that it was good practice for the teacher to start the lesson by giving some background information about the story as it has been found to help learners to connect what they read to what they already know, thus facilitating understanding of the story. The background information set an air of expectancy as the teacher explained that the hitch-hiker was an unpredictable character. The teacher also did well by giving the learners a study question at the start of the reading. This question was meant not only to help learners' when studying the text but to also help them be on the lookout for clues as they read it in class, thereby engaging them more deeply in the story. In addition, as Horbec (2012) and Cunningham and Stanovich (2001) point out, there is a reciprocal relationship between reading ability and vocabulary, so I felt that it was good practice for the teacher to identify unfamiliar words and explain them to minimize chances of failing to understand the story due to vocabulary impediments. Not only did the teacher explain some of the unfamiliar words but she also demonstrated how they could be used in sentence construction. This may help the learners

to use the words correctly both in spoken form and written form. However, given the overall poor academic performance at the school in general, and in English in particular, these practices were not enough to nurture an enjoyment of reading and to develop the kind of rich vocabulary that Form 5 ESL learners need to succeed in school. As stated earlier, there were few vocabulary building exercises in the learners' books and that prompted me to think that writing the unfamiliar words and demonstrating how to use them was not a regular class activity and it seemed as if it was done for the researcher's benefit. Focusing on only 5 words in the entire 40-minute lesson was not enough. To enrich the lesson, the teacher could have encouraged the learners to keep a vocabulary note book and make vocabulary flashcards where they would write the words and their meanings and be expected to have learnt them by the end of a week (Carrol, Wilson & Forlini 2001).

The learners could use the vocabulary notebook to jot down all new words they encountered during the lesson and then look up their meanings. The teacher could also encourage learners to divide the vocabulary notebook into 3 sections namely, a section for the new words followed by a section for definitions and a section of examples on how the words are used. On the flashcards, the teacher may ask the learners to use the one side to write words they want to remember and on the back of the flashcards they could write a definition, pronunciation and a sentence in which the word is used.

There was little time and effort given to additional vocabulary building and that may be one of the causes of the learners' weak vocabulary reported in Chapter 4. I felt that there was a need for the teacher to improve her approach for the learners to better understand her lessons and help them acquire a much richer vocabulary and become independent readers. This could be done by giving the learners specific tasks on the story to read ahead and come back to report on them in class through class presentations. These presentations would reduce learner dependency thus making the learners to be autonomous and responsible for their own learning.

As the story the *Hitch-hiker* was rich in vocabulary, the teacher could achieve much in terms of reading and vocabulary if for example she gave the learners a homework activity prior to the

lesson to read and identify words the writer uses to describe or show admiration of the BMW and then emphasize that the reading homework would be followed by a quick word meaning test at the start of the next lesson. This would compel all the students to read, knowing that they would be tested on what they read. Their reading could result in better word knowledge of the text and probably foster deeper understanding of the story. The inadequacy of the few words selected and written by the teacher was evident when the learners had a problem with the words 'growled and grunted', words which the teacher had not explained earlier.

As the lesson developed, I felt that other than the physical description of the hitch-hiker many opportunities to understand what makes him a likeable character in spite of who he is and his physical appearance were lost. For example, I felt that the teacher could have stopped to discuss with the learners how, despite his physical appearance, the character seemed intelligent, crafty, could influence the driver and was deft and skillful with his hands. If the teacher was able to draw the learners' attention to these points, the learners would have engaged more fully with the story and even have enjoyed it without losing focus.

The uninspiring appearance of the classroom and the lack of reading practice in the classroom may be contributory causes of the low reading ability reported in Chapter 4. The teacher was the one who read and she did not give reading turns to the learners. Even though her approach provided a model of good reading and appropriate pronunciation, she did not create opportunities to assess if the learners could pronounce the words correctly, read fluently or even understood what they read. Her neglect of the learners when it comes to reading in the class could result in teacher dependency, with the learners knowing that even if they do not read at home, the teacher would read for them at school and their failure to read would not be exposed.

At the end of the lesson I felt that there was a need to improve on tying up the lesson for the day. The lesson was ended without a summary, and no homework was given to help the learners read further. I felt that the lack of written work needed to be addressed to encourage the learners to read on their own for homework and for pleasure.

### **5.2.2 Observation in urban School B**

Urban School B is located within the city suburbs in Mbabane. The road infrastructure to the school is well developed and the school is easily accessible. The community around this school speaks siSwati as first language and English as second language. Most of the parents of the learners in this school are employed and could probably easily afford to buy books for their children. I had observed that in the reading questionnaire, the learners indicated that their parents held white-collar jobs and from their responses I thought that buying print material for the learners could be possible.

The observation started at 9:00 o'clock in the morning and it was done towards the end of the year in 2013. I had obtained written permission earlier from the Ministry of Education and the school's principal to conduct classroom observation in his school. I drove to the school before 9:00 o'clock, carrying a note book to jot down notes of what I observed and I also had a cell phone to take pictures of the school buildings and classrooms as I had been allowed to do so.

When I arrived at the school I found that the principal was absent for the day and I was attended to by his Deputy. I showed him the consent letter I had received from the principal to conduct the observation in the school. The Deputy informed me that there were 450 learners and 26 teachers in the school. All their teachers had a PGCE and according to the ministry employment rules, they were qualified to teach at high school. This school had Forms 1-5 with a double stream in all the forms. The school fees for the year were approximately R4500. Being familiar with the socio-economic status in Swaziland, this information about the fees made me anticipate finding learners from both affluent backgrounds and low income families in the classroom. As shown in Figure 3.2 in Chapter 3, urban School B had six blocks of newly painted modern buildings and the school premises looked clean. Teachers and learners could keep their books in the classroom as there were lockable doors and windows in each classroom to keep items safe. This school was better resourced as it had a functional library with about 1000 books. However, this was too little for the over 450 learners in the school as it is estimated that there must be 10 books per child per school (Franzen & Allington 2009). For this school, this estimate implies that there should be at least 4500 books in the library for the learners

(Conyngham et al. 2010). This indicates that even though the teachers in this school thought they had a functional library, their library fell short of the required reading material for many learners.

The teacher whose lesson I observed in School B was 35 years old and relatively new to the school as he had been with it for 2 years. However, he pointed out that he had taught English elsewhere for the previous four years. He held a PGCE from the local university. He informed me that he would spend 80 minutes teaching in the class and I went there prepared to stay for the entire duration of teaching time. Before he taught, he introduced me to the learners and informed them that I would be with them for the two periods. Knowing that when there is a visitor learners normally participate fully in a lesson I expected an exciting time. I sat at the back to have a clear view of all the learners without much disruption. There were 16 learners in the classroom and there were enough spaces in between rows to allow the teacher to move as he checked their work or taught. The learners sat in pairs and each learner had a chair and desk. They did not share books. Each learner had a copy of the prescribed text on their desks and all the learners looked neat and in full school uniform. As was the case in School A, School B also used the book rental system. This meant that all the learners had access to the prescribed texts in the school. The teacher told me that they resorted to the book rental system after struggling with learners who could not afford to buy books for themselves.

Although the school is situated in an urban area and looked new, it did not have a print rich-environment in the class. Similar to School A, the walls in the classroom in urban School B were not covered in print material that showed that it was an English class or displayed materials that could promote literacy. Even the notice board was hardly put to use. It only had two sheets of paper which were not directly relevant to the subject. The first sheet was an outdated notice about Examination rules and regulations used for the Form 5 national examinations the previous year. The second one was a class timetable. This timetable had ten periods of 40 minutes. Here too there seemed to be no reading slot or library period in the timetable, which suggested that reading was not prioritized in the school.

My observation was again focused on how reading and vocabulary were enacted, how the lesson was developed and how learners reacted to the lesson. I observed a literature lesson on the novel entitled *Lord of the Flies* by William Golding. This novel describes the plight of boys who were stranded on an island without adult supervision. They had to find a way to live alone amidst the fears of the night and their hunger. They tried different means to be rescued from the island. However, their attempts proved futile and they ended up staying longer than they expected. Their stay became tragic as they turned on each other and some of them died and the island was also ravaged by fire. The novel is 248 pages long and it has 12 chapters. The learners were expected to read all the chapters in preparation for the examination at the end of the year. The teacher told me that they had already done Chapters 1-10 and he further pointed out that the learners were not performing well when he assessed them on what they read. He complained that though they had their own copies of the novel and are allowed to take them home and read, they did not read as expected. He pointed out that even if they were given homework, half the class would ignore the homework. The teacher explained that such behavior showed that the learners were not committed to their school work. However, it appeared to me that there was lack of discipline on the part of the teacher. He did not follow the learners enough to ensure that they do their given homework.

The lesson I observed that day was on Chapter 11 entitled 'Castle Rock'. The teacher began the lesson by recapping on the previous chapter. He reminded the learners that the boys were now divided into two camps, namely Ralph's camp and Jack's camp. He informed them that Ralph's camp remained focused on their earlier mission, to be rescued. Jack's camp on the other hand regressed and they became hunters and savages. He explained that that was why the writer uses the term 'tribe' to describe Jack's group. The teacher also reminded the learners that Chapter 10 showed that other than being hunters, Jack's tribe bullied the other boys and had a hand in Simon's murder. He then asked the learners to explain how the tribe affected Piggy in Chapter 10. All the learners seemed to know as they raised their hands. The teacher gave one learner a chance to explain and the learner said that the tribe stole Piggy's glasses to start a fire for roasting meat and the teacher agreed with his response. He also emphasized that the boy's

lack of concern for vulnerable Piggy was a sign of their descent to savagery. Their underlying moral value system was waning.

After that the teacher explained that Chapter 11 is called Castle Rock because the events of this chapter take place around the rock where Jack established his stronghold and he also told them that Jack turned some of his hunters into body guards at Castle Rock. I noticed that his description showed that he missed the fact that the place was also called Castle rock because the rock looks as big and formidable as a castle. Before he began reading the chapter, the teacher wrote the following words: *shrieked, exploded, lever, tribe* and *blind*. He gave the meanings of these words to the learners and demonstrated how they are used in the story. He told the learners to pay attention to these words because understanding key events in the story depended on them. The learners were encouraged to write the words and their meanings in their English exercise books. However, when I checked an exercise book for one of the learners I noted that there were few such words entered in the noted book, perhaps it was the first of its kind. The teacher also gave the learners one question on which the lesson would be based. The question was: *Discuss how Golding creates a poignant atmosphere in Chapter 11*. The teacher explained the word 'poignant' and told learners that it has to do with emotions, especially sad emotions. He then told learners to pay attention as he read and to identify the poignant moments in the chapter.

Chapter 11 opened with Ralph blowing a conch to arrange a meeting with the boys that remained in his camp. The teacher read the lines:

*The twins watched anxiously and Piggy sat expressionlessly behind the wall of his myopia...Ralph brought his face within a couple of feet of Piggy's and asked: 'Can you see me?' 'A bit, they have got our fire and they have blinded me, I can't see no more and I have to get my glasses back', raged Piggy.*

As he read, his voice conveyed Piggy's sadness and I noticed that the learners were focused and appeared touched by Piggy's plight. The learners seemed to be engaged and they concentrated on their books. I also noted that the teacher involved the learners in the lesson by asking questions occasionally. For example, after reading the line where Piggy complains to Ralph

about his glasses, he stopped and asked learners to express their feelings on Jack and Piggy's plight. I anticipated learners to have a little problem with understanding the word 'plight', but their responses suggested that they understood the word though the teacher did not explain it in class. One learner said that Jack was heartless and inhumane because he did not care that Piggy was vulnerable. There was also a brief argument in the class when another learner felt that Piggy got what he deserved because he was spoiled. The learner made reference to Chapter 1 where Piggy complains non-stop about his asthma and how his aunt would never allow him to run. The learner pointed out that Piggy was annoying/ irritating, even to Ralph in the first Chapter. So he said that Jack could not tolerate a sissy like Piggy. However, it seemed that many learners in the class sympathized with Piggy, which in turn suggested a certain level of engagement with the story. I thought that that was a good learner discussion and at that point, I expected the teacher to bring up the issue of first impressions and ask learners to explain how their first impressions of Piggy affected their understanding of him in the subsequent chapters.

The teacher read on where it states how Ralph's camp moved on to demand Piggy's glasses from Jack's camp. As they moved, Piggy had to be led on because he could not see. At this point the teacher could have referred the class to the question he gave earlier on the poignant aspect of the chapter, so this was a 'lost' learning opportunity. The leading on of 'blind' Piggy seemed poignant to me, especially because he was unarmed while Jack's tribe was known to be dangerous. The expectation of disaster seemed to engulf the learners as Ralph's camp confronted Jack.

When the teacher read the section where the tribes confronted each other, he stopped and demonstrated that Roger, one of Jack's guards, was high up on the rocky hill while Ralph and Piggy were at the foot of the hill. Then he read the lines:

*Roger leaned all his weight on the lever under the boulder. Ralph heard the great rock long before he saw it and he flung himself flat while the tribe shrieked. The rock struck Piggy a glancing blow from chin to knee; and the conch in his hands exploded in a thousand white fragments and ceased to exist just like poor Piggy.*

After this reading, the teacher stopped and asked learners to look at the word *shrieked*. He explained that this word refers to a shout of excitement. He then asked learners to explain what they found abnormal with the use of this word in this situation. The learners pointed out that Jack's tribe had lost human values as they mocked Piggy's sudden and violent death. They pointed out that his death was poignant because he was killed in cold blood. They argued that it was better for Ralph because he saw the rock descending and escaped but Piggy could not escape as he had lost his sight. Then the teacher reminded the learners that the boys were young and they turned into murderers at an early age.

The entire teaching time of 80 minutes was spent with the teacher reading the story and stopping to ask questions so that learners could discuss what the teacher thought were crucial sections in the story. There was, however, no change in activity and little focus on vocabulary. When the lesson ended, the teacher summarized the lesson and asked the learners to provide a 2-page response on the question he gave at the beginning and asked them to submit it the following morning. At the end of the lesson, I felt that the lesson had been quite successful though limited in a variety of activities, the learners were actively involved in the lesson, and there were some attempts, albeit limited, to develop vocabulary.

In the post-observation stage, the teacher informed me that their timetable did not have a reading period because they did not have extra time to teach reading. He also pointed out that their timetable was very full. On the aspect of the lack of print resources in the class, the teacher informed me that they did not see the need to have a print-rich environment in the class because the school had a functional library and their learners were encouraged to frequently visit the library to read. The lack of print material in the classrooms seemed to be a norm in the school. This was because as we moved from the literature classroom past three other classrooms, I noticed that they also did not have print material on the walls. It appeared that there was no effort to teach reading even in the urban school. The teachers seemed to think that high school learners should be able to read.

In the post observation phase, I also analyzed the performance of the learners from the previous three months from the termly assessment and sought the teacher's opinion on how

the learners may learn and retain new words. I also asked for the Form 5 results issued the previous year to see how the school had performed in the national examination. The monthly scores showed poor performance for literature as no learner scored above 65% over the three months, and the majority of the learners obtained below mid-mark (i.e. below 50%) in the tests. The Form 5 national examination results for the year 2012 showed low performance in literature. The credit mean percentage rate (credits being scores from 60 - 100%) was below mid-mark. I felt that there was a need to promote reading and teach reading comprehension explicitly to help learners to read with understanding and aid performance in the school subjects.

The teacher suggested a few ways that learners can use to learn and retain new words during the lesson. For example, he suggested that learners can learn new words by guessing their meanings and later looking up their meanings in a dictionary. He further pointed out that learners can learn new words by writing down their meanings and memorizing the new words learnt. The teacher explained that memorizing may help the learners to store the words in the memory to avoid easily forgetting them. Another way suggested by the teacher was keeping a vocabulary notebook where the learners enter the new words learnt and then using them to construct sentences to help the learners retain the new words learnt.

### **5.2.2 1 Classroom practices and lesson evaluation**

The teaching practices observed in School B had both the potential to improve but also negatively affect reading and vocabulary performance. There were several good teaching practices in place in the classroom observed. For example, it was a good teaching practice for the teacher to begin by recapping on the previous lesson. Reminding the learners of the previous lesson helps them connect the events of Chapter 10 in the novel to the chapter they were reading that day because there was a close connection between the two chapters. Learners also need to be guided in each lesson by questions that focus their attention. In this respect the teacher gave the learners a guiding question which I felt would help the learners to pay attention to aspects of the story while they were reading, and enhance their understanding of what they were reading. Recapping on the previous lesson and the guiding question are both

teaching strategies that help foster engagement with the text and a deeper understanding of the story.

The title 'Castle Rock' also needed to be explained for learners to understand the chapter as it was referred to frequently in the story. The teacher explained that it was referred to as Castle rock because it was where Jack established his throne for his tribe. To make the story easy to understand, the teacher identified and explained what he thought to be five unfamiliar words that could frustrate learners as they read. This in his view would remove vocabulary inhibitions towards understanding the story.

There was also much learner participation in the lesson. For example, regarding the theft of Piggy's glasses, the teacher asked the learners to give their views on how being without his glasses would affect Piggy. He also asked learners to identify poignant moments in the story as he read. I noticed that the teacher also stopped at crucial moments and asked the learners to express their feelings regarding the events in the story. For example, when Piggy complained about his blindness, the teacher asked the learners to express their feelings on the boy's plight. To foster understanding the teacher also demonstrated how Roger, one of the mean characters in the story, leaned on the lever before the stone fell from the mountain top to crush Piggy at the foot of the mountain. The teacher also used intonation effectively to keep the learners captivated, and there were times when he changed his voice to capture appropriately the characters' emotions. That reading strategy achieved his desired effect as the learners were focused throughout the lesson. It also provided them with a model of good reading.

Even though little attention was paid to vocabulary development, it was a good practice to explain and engage the learners on some of the words that may hinder understanding of certain moments in the story. For example, it was good for the teacher to explain the word *shriek* and ask the learners to have a discussion about what the behavior of the boys says about their nature at the point where they kill Piggy. This had potential not only to increase their word knowledge but to also develop critical thinking skills.

Other positive points were that at the end of the lesson, the teacher summarized the chapter and wrote main points on the board to help learners remember what was learnt and also gave

homework to the learners. The task given to the learners was one of the ways that could improve vocabulary because as they read on their own to do the homework they would meet a lot of unfamiliar words. If they took time to look up the meaning of those unfamiliar words in their dictionaries, their vocabulary may increase.

However, there were also lost opportunities during the lesson for reading comprehension and for further vocabulary development. For example, most of the questions posed by the teacher were literal questions and he hardly used inferential or evaluative questions. I felt that that would not promote comprehension at a deeper level. Even though the story reading by the teacher was one way of demonstrating good reading and perhaps correct pronunciation, the continued reading by the teacher did not give the necessary reading practice to the students. As stated above there was not only a missed opportunity to demonstrate vocabulary learning strategies, but missed opportunities for comprehension strategies, and drawing attention to textual details to show how an author crafts his story to build sympathy or horror.

Although there was some focus on vocabulary, it seemed to be inadequate and at the wrong level of word knowledge. As the duration of the lesson was 80 minutes, I expected the teacher to bring up more than the five unfamiliar words he listed. Other than the use of the dictionary to get the meaning of words, no other strategies were given to quickly get word meanings from texts. For example, he could have asked the learners to use clues from the word's surrounding context to work out their meaning. Some of the unfamiliar words he focused on were words that Form 5 learners should be familiar with already because they were high frequency words. For example, the words *tribe* and *blind* should not be difficult for Form 5 ESL learners. I felt that there were many other words that the teacher could have focused on in the chapter. For example, there was the word *garlanded* which the teacher did not bother to explain and the learners did not ask for its meaning.

The vocabulary strategy of writing unfamiliar words on the blackboard seemed less helpful. The teacher listed and explained what he thought were unfamiliar words in isolation as opposed to doing so in context. For example, he could have referred the learners to the context in the book

where the words *shrieked*, *exploded*, *tribe* and *blind* are used to show the learners how these words may be used during sentence construction.

There was also a lost opportunity for contextual vocabulary learning strategies when the teacher read the following lines:

*The twins watched anxiously and Piggy sat expressionlessly behind the wall of his myopia...Ralph brought his face within a couple of feet of Piggy's and asked: 'Can you see me?' 'A bit, they have got our fire and they have blinded me, I can't see no more and I have to get my glasses back', raged Piggy.*

This was a paragraph rich in vocabulary that the teacher and the learners could focus on. The teacher could have asked the learners to look at the underlined words, take note of their morphological structure, figure out their meanings and observe how they are used in the sentences. Such an exercise would have helped to empower the learners with skills of getting meanings of words without necessarily using a dictionary.

Even though there are multiple factors that affect success at school, I thought that the factors given above also contributed in some measure to the poor reading ability and low vocabulary discussed in Chapter 4.

### **5.2.3 Similarities and differences in the two lessons**

There were more similarities than differences in the two lessons I observed. Both teachers started their lessons well in that they each gave a preview of the lessons or recapped on the previous lesson. For example, the teacher from School A explained to the learners how the driver's journey turned sour on the way and the teacher from School B recapped on chapters prior to the chapter they studied that day.

The teaching approach was similar in the two classes. At the beginning of the lesson both teachers gave clues to the learners by giving them a question that would guide the learners to pay attention to certain aspects of the story as they read, and the questions seemed helpful in the development and understanding of the stories. In terms of reading, both lessons were

teacher centered because the teachers read and initiated the discussions. Both teachers read well and used intonation appropriately to capture special moments in the stories. However, there were slight differences during the reading process. The lesson in School B had far more class discussion compared to School A.

In both classes there was no explicit teaching of reading comprehension strategies to the learners. The teachers modeled good reading to the learners but they did not tell and show the learners what to do if they fail to understand what they read. For example, I expected them to teach strategies such as reading and rereading when comprehension breaks down, and using contextual and morphological clues to infer meaning.

Both teachers did not do much on vocabulary development and there was no systematic approach to building up word knowledge in the class. There were only a few words that were identified and explained by the teachers yet there were many unfamiliar words in the stories. Even though the teachers explained the few words, no other strategies for working out meanings of words were given to the learners. Vocabulary building also seemed ineffective because the learners did not keep a vocabulary note book in both classes. It is likely that where ever they wrote the words they would not read them later.

There were also differences in terms of ending the lessons. In School A, no summary or homework was given at the end of the lesson. It appeared as if the teacher planned her lesson poorly as she failed to cover all she had to teach that day. The opposite was true for the lesson in School B, where the teacher summarized the chapter and wrote key points on the blackboard. He also gave homework with the instruction for the learners to submit the following day. Both teachers did not attach much significance to wide reading and print environment in their classrooms. Their classrooms were not covered in print material and it was not easy to tell that those were English lessons.

### **5.3 Conclusion**

This research study used both quantitative and qualitative research methods to explore the relationships between reading comprehension ability, vocabulary and, attitudes and academic

performance at Form 5. The qualitative aspect of the study was used to complement the quantitative component of the study. Specifically, it was hoped that the observations of the classrooms and the teaching practices would shed light on the poor reading ability and low vocabulary reported in Chapter 4. The poor reading ability and low vocabulary in turn contribute to the poor academic performance as reported in Chapter 4.

The quantitative aspect of this study assessed proficiency or accomplishment in reading ability while the qualitative aspect looked at factors in the classroom that enable/ disable the development of proficiency or accomplishment in reading, vocabulary and attitudes and academic performance. With regards to the findings in Chapter 4, this qualitative component of the current study had 3 notable findings namely, lack of vocabulary building strategies, neglect of teaching of reading comprehension strategies and the frequent use of literal questions during instruction. The little attention paid to vocabulary during the lesson may be one of the reasons the learners depicted poor vocabulary knowledge in Chapter 4. Given that the learners also performed poorly in reading comprehension and seemed to perform better at the literal questions, the neglect of teaching reading comprehension and the common use of literal questions during the lesson may be some of the causes of the weak reading ability and poor performance in the reading tests.

## CHAPTER 6

### SUMMARY AND RECOMMENDATIONS

#### 6.0 Introduction

This chapter summarizes the current study and identifies the main trends from the findings. It begins with trends in reading comprehension, vocabulary and academic performance as well as trends in the reading questionnaire. This will be followed by a brief discussion of the limitations of the study and its significance in relation to reading research in Swaziland. The recommendations and suggestions for further research will be presented towards the end of this chapter.

#### 6.1 Overview of the study

The current study investigated if there were significant relationships between Form 5 learners reading ability, their vocabulary knowledge and reading attitudes, and academic performance in the state schools that participated in this study.

Chapter 1 introduced the theme of the current study. It also contextualised the study by discussing the background in which the research takes place, focusing on the official languages spoken in Swaziland and it also looked at socio-economic factors that affect literacy and schooling in general, and Swaziland in particular. Chapter 1 also discussed culture and learning in Swaziland and the general performance of learners in the subjects offered in the public schools. It also highlighted the research problem and identified the research questions that guided the study.

Chapter 2 reviewed the literature that deals with reading, vocabulary and reading attitudes, and also included a brief section on academic performance. It also looked at reading research related to the Swazi context and found that there has not been much research done in this area. The only reading research done at the time of conducting this study seemed to be one

done by Lukhele in 2009. Her study focused on reading ability at tertiary level. However, her research was an eye opener to me regarding the reading challenges facing Swaziland. She pointed out in her study that Swaziland is an oral society and many people in the country attach little significance to reading (Lukhele 2009).

The literature review section also discussed reading comprehension in some detail, discussing in particular the different levels of reading comprehension. It also discussed vocabulary knowledge and looked at what it means to know words and the role of vocabulary in reading comprehension and academic performance. Chapter 2 further discussed reading attitudes of Swazis and highlighted that generally Swazi people have negative reading attitudes and the negative attitudes are conveyed even through their utterances during cultural events. It also highlighted the performance of Swazi learners in the comparative SACMEQ studies conducted from 2007 to 2013.

The methodological details are set out in Chapter 3. The study relied largely on the quantitative approach to collect data. However, there was an element of the qualitative approach used as well, in terms of classroom observations. The quantitative data was gathered using three research instruments namely, a reading comprehension test, a vocabulary levels test and a reading questionnaire. Data relating to academic performance was obtained from the schools. To gather the qualitative data, classroom observations were undertaken in a rural and urban school respectively. The current study comprised a pilot phase and the main study. The purpose of the pilot phase was to trial the research instruments in order to effect modifications if needed and to do some preliminary data capturing and statistical analysis before conducting the main study.

Chapter 4 explored the four research questions and tested the hypothesis. It also presented and discussed the findings. The findings of the current study confirmed correlations between the variables that have been found elsewhere, except in the case of the attitudinal variables, where an inverse relationship or no relationship was found between attitudes, practices and access on the one hand, and comprehension, vocabulary and academic performance on the other hand.

Chapter 5 presented the qualitative aspect of the study. It reflected on the classroom observations and explained how the observations were carried out in each school. It also evaluated the lessons observed, focusing in particular on effective or ineffective teaching practices that could impact positively or negatively on reading ability, vocabulary knowledge and academic performance. It also discussed similarities and differences of the lessons in terms of the teaching approaches used by the two teachers.

## **6.2 Main trends in the findings**

The following section provides a brief summary of the main trends in the findings of the current study relating to the reading test, vocabulary, reading questionnaire and academic performance, as well as the classroom observations.

### **6.2.1 Trends in reading comprehension**

The main trend shown by the reading test was that all the learners from all the four schools had generally poor reading ability, with an average RC score of 37.6%. In addition, only one of the learners scored 70% in the reading test, suggesting that there were no really good readers amongst the group as a whole. The descriptive results showed that the learners' reading comprehension ability was weak at all levels of questions (literal, inferential, evaluative and vocabulary questions). The mean scores for the literal questions show that the best performing school obtained 63%; even though it outperformed the other schools, this is still a relatively low score for easy questions, which suggests that even in this school the learners had reading difficulties. The rest of the schools failed to get a mean score above 54% in the literal questions. At the inferential and evaluative levels, the performance was even poorer. The total reading comprehension mean score below 47% in three of the four state schools is quite disturbing. It is to be noted that the learners performed poorly, yet the reading test is considered by Cambridge University to be pitched at the level of Form 5 learners (Grade 12). This suggests that Swazi schools still have a long way to go to develop reading ability that will match international grade level reading.

The findings of the study show significant differences in accomplishment in terms of locality. The urban schools outperformed the rural schools in all variables. This confirms what has been found elsewhere in research, namely that because of the normally ready access to print and better quality of teaching, urban school learners tend to perform better than rural school learners. In addition, absenteeism is usually higher in the rural schools compared to urban schools. Urban schools may also outperform rural schools because they attract the best principals and most qualified teachers. These factors all contribute to the rural-urban divide.

The trend was one of poor reading ability in both the rural and urban schools. Although being located in an urban area gave these schools an advantage, their learners were by no means skilled readers. The rural schools obtained a RC mean of 25.8% and the urban schools obtained a RC mean of 50.2% (47% and 54% respectively). Even though RC mean in the urban schools is twice as high as in the rural schools, both types of schools display serious reading challenges.

Another trend from the reading test was that there was no clear or consistent better performance of one gender over the other. Both genders had weak reading ability, low vocabulary knowledge and poor academic performance. The poor performance between the genders in all three areas of investigation is shown by the fact that neither males nor females performed well in reading comprehension and vocabulary. Even though the males seemed to perform slightly better than the females in academic performance, there were no statistically significant differences in performance in reading comprehension, vocabulary or academic performance. Although gender differences have emerged from other studies (e.g. Voyer & Voyer 2014), especially in primary schools, this was not the case in this high school study. Voyer and Voyer (2014) report that gender differences have been reported in two disciplines: mathematics and language courses. They point out that in the early grades, school marks show that girls outperform boys and as both genders proceed with their education the gap is shown to be closing or even disappearing. In language courses, and reading comprehension in particular, research shows that girls perform better than boys in the early grades. However, research indicates that at high school these differences diminish. The largely patriarchal attitudes in Swazi culture could militate against boys performing well in school, and the

generally low value ascribed to books and reading in the country in general may account for the low literacy levels of both boys and girls as shown in the current study.

### **6.2.2 Trends in vocabulary**

The overall vocabulary performance indicated poor vocabulary knowledge in the current study. The schools' total vocabulary mean was 5% below the mid-mark. Performance was stronger at the 2000-word level but even with these high frequency words, not all the learners achieved the 85% mastery score.

As to be expected, the scores of the learners showed a steady decline from high frequency words to low frequency words. All the learners were expected to have achieved mastery of the high frequency words at Form 5 but unfortunately this was not the case as only two of the four schools achieved mastery of the 2000-word level/ high frequency words. Performance dropped further from the 3000- to the 10 000-levels. As shown in Table 4.3, the weakest vocabulary performance was at the 5000- and 10 000-levels of word knowledge.

There was a robust correlation ( $r = 0.57$ ) between the learners' performance in the reading test and vocabulary test. Poor performance in the reading test also translated to poor performance in vocabulary and academic performance as shown in Table 4.8. This confirms other research findings that reading, vocabulary and academic performance are in a reciprocal relationship. The learners' poor reading ability may be affected by their weak vocabulary which may have brought about comprehension breakdown during the reading process.

The weak knowledge of the low frequency words suggests that the learners would struggle to read and understand academic texts (Corson 1997). Their poor vocabulary could have been one of the causes of poor performance in the reading test: Qian (2002) suggests that there is a reciprocal relationship between reading and vocabulary knowledge. He also suggests that avid readers are likely to develop rich vocabulary which in turn helps them to read with ease and contributes to the understanding of what they read.

Contrary to the seemingly huge difference in reading comprehension performance between the urban and rural state schools, there was less of a difference in vocabulary performance

between the two types of schools. The urban schools obtained a vocabulary score 10% higher than the rural schools. As stated earlier, this was expected because normally urban school learners have much better exposure to print resources and are exposed to more English than learners from the rural areas. The reading comprehension – vocabulary link showed between the two types of schools in that the urban schools, which performed better in the reading test, also performed better in vocabulary. The opposite was true for the rural schools as their weak performance in the reading test mirrored a weak performance in vocabulary.

The rural schools' weak vocabulary showed a link to their poor academic performance, and the urban schools' better performance in vocabulary seemed to result in better academic performance. For example, the urban schools obtained a vocabulary mean of 51.7% and an academic performance mean of 60% while the rural schools had a 40.5% vocabulary mean and 39% academic performance mean.

There was a similar vocabulary performance between males and females in this study. This was unexpected as the literature usually shows that girls read more than boys, yet in this study the results were equally low, with no significant differences between the boys and girls. For both genders, performance was poor not only in vocabulary but in reading comprehension and academic performance as well.

Based on the learners reading and vocabulary performance, one can infer that the more learners read the more vocabulary they acquire, which in turn helps them to read texts with understanding.

### **6.2.3 Trends in the reading questionnaire**

Despite their poor performance in the reading comprehension and vocabulary tests, responses to the reading questionnaire items suggested that the learners had surprisingly positive reading attitudes and ready access to reading materials. Their response in some of the questionnaire items suggested that they were indeed avid readers. They claimed to read both at home and at school. On the item that questioned how often they borrowed a book from the library, their favoured response was *'on a weekly basis'*. Most of the learners also indicated that they had

over 30 books that they read at home. However, despite these favourable responses, it is likely that some of the responses were not genuine, but were given to impress the researcher. The learners appeared to have responded somewhat nonchalantly to the questionnaire items. For example, after the item which sought how many books they have at home, they were asked to 'give the title of the book they last read at home'. Here, learners would write either *Drum* or *Men's health* as titles of the books they read, even though these are titles of magazines, not books. Their responses put to question their earlier claim that they read many books at home. The learners on the whole also responded that they clearly understood what they read, yet their performance in the RC tests refuted such claims. Such a response intimates that they were not aware of what good readers do when reading. Their responses suggest poor metacognitive awareness combined with social desirability effects. From their responses it could be expected that they would perform well in a reading test, as has been found elsewhere, for example, researchers such as Black (2006) in Australia and Briggs (1987) in the USA, argue that learners who have positive reading attitudes and possess a will to read are likely to read more and to be able to continue reading. However, these studies were done in more affluent countries where learner literacy accomplishment and adult literacy levels are generally much higher. The same relationship may not obtain in lower income developing countries where learner literacy levels are lower, as are adult literacy levels in the community at large.

The responses in the reading questionnaire also suggest that the learners lacked the skill to judge themselves correctly regarding both reading and vocabulary issues (Zubin and Gregory 2007). For example, on item 11 which sought to estimate roughly how many words they knew in English, the learners ticked, '*a lot*', but judging by their poor performance in the vocabulary test, their claim that they know many words in English may suggest lack of exposure to word knowledge. The learners may have assessed themselves in relation to their peers who do not speak English in their communities. Their performance in both the reading test and vocabulary test refuted their claim that they were avid readers and had a rich vocabulary.

#### **6.2.4 Trends from the classroom observations**

As indicated in Chapter 5, the classroom observations were used in two schools to complement the findings of the quantitative aspect of the study. They were also used to informally assess characteristics of the schools in terms of literacy materials, lesson content and presentation and also the extent to which attention was paid to vocabulary. It was felt that paying attention to the features of the schools, classrooms and lessons would provide some indicators of why these schools performed the way they did.

One of the main findings from the classroom observations was that, while the availability of prescribed textbooks provided by the schools to each learner was good, there was a concomitant lack of a print-rich environment. Even though all the learners had access to the prescribed books, the teachers of literature lessons failed to make their classroom environment interesting in terms of having relevant print material. The lack of a print rich environment in their lessons reflected a lack of awareness about the importance of reading and it also suggested that the teachers did not think of reading as a priority. There are many different ways in which this can be done, including the use of posters, word walls, information about books and authors. This was not solely the responsibility of the school as the teachers could be able to get relevant print material anywhere or make their own posters (e.g. posters about RC or vocabulary learning strategies). The bare appearance of the classrooms conveyed neglect of reading and also suggested that the teachers themselves were not aware of the importance of creating rich exposure to English, were not voluntary readers and were not motivated to read.

After talking to the teachers and looking at the class timetables in the two schools and finding no reading slots, I felt that there was also little or no significance attached to reading in the schools. The lack of a stimulating print environment and the reading slot showed that the schools ignored the numerous calls by Fundza (2015) and the Examination Council of Swaziland to have reading times other than the 6 periods allocated to English per week to help improve the poor results in English. The uninviting or unstimulating classroom environments suggested that the teachers did not have the capacity to encourage reading because they also appeared as non-readers. The schools' administration also did not make allowance for stocking or

keeping print materials as there were no shelves in the classroom and this also portrayed negative reading values for the schools. This lack of reading culture transferred to the learners.

The observations indicated that both schools were poorly resourced. Besides the lack of a print-rich environment in these schools, School A did not have a library. Only School B had a functional library, though it had few books when compared to the school's enrolment figures. There was also no clear attempt from the schools to teach comprehension strategies to the learners, and vocabulary was dealt with in a rather lackadaisical manner. It appeared as if the teachers assumed that at Form 5 learners are able to read. I also noticed that the lessons in the selected schools were teacher centered. It was the teachers who read, initiated vocabulary issues and began the discussion on any given subject.

After observing a lesson in both schools, I noted a trend of poor performance in English as second language and English literature in particular. The monthly test scores for the first three months showed that the maximum score for the learners in literature was 59%. In spite of the low scores in the two subjects, the schools were not visibly doing anything to improve the situation. The low performance seemed to be a norm and no corrective measures such as improving the reading situation in the school and classroom level were put in place. There was also no evidence showing that the poor performance over the 3-month period has resulted in the schools and teachers revisiting and reflecting on their classroom practices to try and see how to improve the situation, which may also be one of the causes for the low scores.

The mediocre performance in the school tests seemed to translate to poor performance even in the national exams. For example, School A obtained a 34% credit mean percentage in the 2012 National exams; a credit being any score from 60% to 100% and the lower the credit mean score, the lower the academic performance at the school<sup>2</sup>. The poor performance in the tests and exams could have been caused by the teaching approach in the public schools. I noted that teachers only focused on a few unfamiliar words in the story yet the text studied had a lot of unfamiliar words. The teachers seemed to believe that the learners would learn the words in context as the stories were read in class. The teachers also read continuously without teaching

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<sup>2</sup> Permission was granted by the school to view their exam results

comprehension strategies to learners. The focus seemed to be on reading and finishing the story without aiming to help learners with reading comprehension skills or vocabulary learning strategies.

Literature needs learners to read and love reading in order for them to perform well. From the scores of the reading test, it appeared as if the learners did not fully understand what they read. Their performance cast doubt on their teachers' dedication to teach and expose the learners to reading. The lack of a culture of reading in schools, as discussed in Igwe (2011), also seemed to be a contributory factor for the poor performance in the schools observed in this study. In the post-observation session, teachers complained that learners only read when they are forced to do so. For example, the teacher in School A raised her concern that if the learners are given a task to read at home, they always neglected the instruction to read and there was little that could be done because the school had disciplinary problems. Even though I noticed in the first school, rural School A, that there were disciplinary problems in that most of the learners came late to school, I felt that it was the duty of the teacher to enforce discipline in the class and see to it that learners comply with instructions to do homework. The teacher in this case was indifferent to the learner challenges and blamed the school administration. This indifference may be one of the practices that affect reading performance and vocabulary knowledge.

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

The current study arose from serious concerns of poor reading ability and poor academic performance that prevail in Swazi state schools, based partially on anecdotal evidence and my own experiences of teaching Grades 10 to 12 in the state schools. I set out to answer the four research questions highlighted in Chapter One. Although care was taken in designing and implementing the current study, there were some limitations as shown below:

- ❖ Firstly, the sample size of the study was small and this limits the generalization of the conclusions drawn from the study. Although both urban and rural schools were included in the sample, the small sample size of the four high schools makes it likely that the conclusions drawn may not be relevant to all the state schools in Swaziland.

- ❖ Secondly, the use of the reading questionnaire proved to be a weak link in the battery of data collecting instruments. Questionnaires that tap into students' attitudes and practices seem to be particularly vulnerable to socially desirable responses and the items need to be designed with great care. As a result, there was a serious mismatch between scores from the reading questionnaire and the reading test. Conducting individual interviews with the learners or doing focus groups with the learners may have provided opportunities for probing more deeply into attitudinal factors related to reading and access to books.
- ❖ Thirdly, due to time constraints there were some challenges in the pilot study that made it difficult to modify and experiment with the reading questionnaire, so as to come up with one that would minimize socially desirable responses. The pilot study was conducted toward the end of the year, a time where schools were busy preparing for end of year examinations. In principle, more time was needed between the pilot and the main study to work on the reading questionnaire to redesign some of the items to try and reduce socially desirable responses with further piloting, but I did not have enough time or financial support to do all this.
- ❖ Fourthly, due to the wide distance between the schools that participated, it was hard to include all the four schools in the qualitative aspect of the study. As a result, the qualitative aspect of the study did not come out the way I would have wanted it. This is because instead of having a wider data base from four schools I ended up having data from two schools that differed from each other in terms of socio-economic status factors.
- ❖ Lastly, the study also fell short because there was no formal discussion or interviews with the teachers who taught the various subjects in the schools. Holding discussions or in-depth interviews with the teachers could have deepened the qualitative aspect of the study.

#### **6.4 Significance of the study in relation to reading research in Swaziland**

Conducting the study on the relationship between reading, vocabulary, attitudes and academic performance has in part affirmed the volumes of research that state that reading is a powerful means of improving one's vocabulary, and that learners with a large vocabulary stand a better chance to comprehend what they read. Although this is a small scale study, it gives an indication of the vocabulary levels of Form 5 learners in Swaziland. This study is also important because it is the first of its kind to try and shed light on the relationship between reading, vocabulary and academic performance in Swazi high schools; not much research has been done in this area in Swaziland before. To be exact, the findings of this study indicate that the Form 5 learners have little or low vocabulary knowledge.

Reading research in Swaziland has shown that the country's basic literacy stands at 87% (UIS 2013). Basic literacy in this context refers to an individual's ability to read and write his name and to understand information at the literal level. The findings of the current study suggest that even at the end of high school, understanding into questions at the literal level is an achievable goal for many ESL learners but understanding information at the inferential and evaluative levels is far more challenging.

Reading research in Swaziland has been conducted at primary school and college level only. Grade 6 Swazi learners participated in a comparative Southern and Eastern Africa Consortium for Monitoring Education Quality on literacy from 2007 – 2013. The SACMEQ study showed that Grade 6 Swazi learners could read for meaning, infer and interpret what they read. In the SACMEQ study Swaziland came third after Tanzania and Kenya. In another study, Lukhele (2009) set up a small scale study where she explored if there were significant relationships between Swazi college students reading attitudes, access to leisure reading resources, exposure to print based materials, reading habits, vocabulary knowledge, L1 and L2 reading, academic performance and reading ability. Her study also showed that there were significant relationships between access to leisure reading resources, vocabulary knowledge and academic

performance and reading ability. However, these two studies were done at primary school and at college level respectively and there is a need for research on literacy at high school. Therefore the current study sought to fill this void because some learners experience a steady decline as they move up the education ladder.

As repeatedly pointed out in the literature review section of this study, learners gain most of their vocabulary through reading in both L1 and L2. However, research indicates that educators must not solely rely on reading to improve learner vocabulary, but they must also teach vocabulary to learners explicitly and systematically, especially academic words as these occur across textbooks and help in reading to learn (Marzano 2004). The Examining body in Swaziland highlights yearly that most Form 5 learners underperform in the examinations due to inadequate English vocabulary. The findings of this study in all four state schools pinpoint the pressing need for teachers and learners to work together to improve ESL vocabulary knowledge. In this regard this study is significant because it raises an urgent call and a reminder to teachers that explicit instruction of specific words and their meanings can help improve learner vocabulary.

Given that research studies indicate that there is a positive correlation between reading, vocabulary and academic performance, this study may be a reference point for schools in the country that hope to help their learners to excel in the curriculum. The findings of this study signal that the lack of a reading culture among Swazi students does not only affect their vocabulary knowledge but it also leads to poor academic performance. Given the expenses involved in setting up school libraries and the poor SES factors in Swaziland, this study makes an urgent call to parents and teachers to find affordable alternative ways for learners to have easy access to print materials. In this regard this study advises parents and schools to ensure that each learner has his own book and access to other reading materials that can expose learners to reading and vocabulary. This study advises parents and teachers to have book collections in the absence of school libraries. These collections can range from magazines, journals and newspapers to books.

As stated in Chapter 1, Swaziland is a strongly oral society (Matsebula 1988, in Lukhele 2009). The government of Swaziland has not prioritised reading for the nation in general and for learners in particular. The findings of this study suggest a serious need for the government and the Ministry of Education in particular to transform the country into a reading nation by providing schools with books and encouraging the explicit teaching of reading, not only at primary school but at high school as well so that the weak reading ability observed in this study may improve. However, contrary to the findings of the current study, reading research at Grade 6 conducted by SACMEQ in 2007 shows that Swazi learners are able to infer and evaluate what they read. As already stated, there may be a steady decline as the learners get to high school, hence the poor reading ability at high school.

There isn't much documented research on reading ability in Swaziland, especially reading research for school-going children in either their L1 or L2. However, the findings of the current study indicate that Swazi learners in public schools have serious ESL reading problems and this may be caused by, inter alia, the lack of a reading culture in the country.

Swaziland is a poor country so books are not a priority. Reading is not valued and prioritized in the homes and communities as well as in the schools. The government and parents only pay lip service to it and no follow up is taken to ensure that it is done in the public school. The lack of the reading culture may be evident in that there are only five national libraries country-wide. This is inadequate considering that there are over 1 200 000 people in the country. At a city level, the lack of a reading culture is observable in that there are only five bookshops in Mbabane and very few schools have functional libraries.

As discussed in Chapter 4, the reading ability of the Swazi ESL learners at high school was centered on basic reading skills, i.e. comprehending at the literal level, and they struggled with comprehension at the inferential and evaluative levels. The lack of a culture of reading and lack of access to print-based resources could be two of the many causes of the poor reading ability in the schools.

There are some non-governmental organizations that are committed to boosting the reading abilities of learners in the country. One of them is 'Fundza' which means 'reading' in siSwati.

This NGO's mission is to promote reading and raise the literacy rate among learners in Swaziland. It aims to achieve this by making information and library services available to primary and high schools. Fundza believes that books are like a gold mine, and children become enriched, equipped and empowered through reading (Fundza 2015). As a result, Fundza tries to reach all schools in Swaziland with reading materials donated from overseas. The challenge, however, is that most of these are reference books and there are not many novels for the over 600 schools in the country.

Fundza acknowledges that it is difficult to get Swazi children to read because there is no reading culture. Families do not have books where children can do extra reading. Consequently, children find it hard to read as they are not acquainted with books. Schools in the country have also been accused of not having a library period or reading slot in their time tables (Fundza 2015).

The SACMEQ report pointed out that the Swaziland government has tried to improve literacy and reading ability by introducing free text books, giving extra reading material in the form of class library boxes, and recruitment of teachers with university degrees in the Humanities (Spaull 2012). However, the government intervention has, up to the year 2015, been limited to primary schools and a common observation is that after Grade 7, i.e. the last year at primary school, literacy levels drop. There still remains the challenge of weak or poor reading ability at high school due to a lack of extra reading resources. The findings of this study seem to indicate that Swazi learners come to high school with reading problems and as their reading problems are not given attention they are exacerbated, resulting into failure to meet high school reading demands. This reflects the views of Kelly and Campbell (2014) where they point out that students from disadvantaged backgrounds begin school with inferior reading skills and continue through school with persistent reading problems develop poor reading ability.

Swaziland is not alone in having literacy challenges. In the case of Zimbabwe, an African country similar to Swaziland, Muchemwa (2014) points out that though the quality of education seems high in that country, many learners struggle to read. He points out that in Zimbabwean high schools, there are a lot of non-readers and challenged readers who miss the joy of learning

from printed books. Spaul (2012) points out that the SACMEQ research findings showed that Zimbabwe came fifth in the ratings in terms of higher order reading skills. On the whole the learners could respond well to literal questions but here too they struggled with higher order reading skills.

Reading research in Zimbabwe cites several causes of reading deficiencies among school pupils. These are the learner, the atmosphere at home, the learner's peers and the conditions at school. The lack of a strong reading emphasis in schools may cause learners not to have a will to read. Muchemwa (2014) points out that most learners in Zimbabwe lack the will to read and they also do not have books to read at home. He points out that even the country's schools are poorly resourced. These unfavourable conditions cause reading deficiencies among the learners.

Research on reading conducted in Namibia, another Southern African country similar to Swaziland, showed that the Namibian learners also struggle to master reading (Nyathi and Hengari 2007). Research results from a survey conducted by SACMEQ demonstrated that there are gaps in reading competencies of learners at primary school and the majority of Namibian learners read with difficulty. For example, it was found that at the overall national level, only 16.9% of learners reached the minimum level of mastery in reading literacy (Nyathi and Hengari 2007). When tested for competency, Namibian learners in Grade 6 scored poorly compared to pupils from other participating countries (ibid).

The three research findings discussed above show that the reading problem faced by Swaziland's high school learners is common in countries elsewhere in Southern Africa.

## **6.5 Recommendations**

This section presents recommendations for schools and teachers in promoting reading among learners. Some of the things that can be done to promote reading are: creating a culture of reading, providing access to books, explicitly teaching comprehension, and systematically developing vocabulary.

- **Creating a culture of reading in schools**

The findings of this study suggest that it is imperative for schools and teachers to create a culture of reading in the learners, in both L1 and ESL. This should be done at both primary and high school so that the reading culture remains with the learners for the rest of their school path. Eza (2004) points out that a reading culture is a learned practice of seeking knowledge, information or entertainment. This view on a culture of reading indicates that for learners to read frequently, schools and teachers need to teach them to read and the learners themselves need to understand why reading is important. They need to understand that the 21<sup>st</sup> century relies on a knowledge and information economy. People who do not read in this century can become social misfits and lose out on well-paying jobs. Learners need to know that they must seize every reading opportunity available and that much higher literacy levels are needed in this century compared to the past. This is because information is not only stored in hard copy today but also in digital and electronic forms. To access information in these forms, learners need to know that digital and electronic literacy requires complex reading skills. The advent of the electronic media indicates that survival in the years to come will be largely dependent on how literate one is, not only in the work place but in all aspects of life.

- **Access to books**

Teachers need to know that the learners' willingness to read is not enough if they do not have ready access to print materials. If schools do not have functional libraries, teachers can make a collection of books, magazines, journals and newspapers in their classrooms. As learners read these print resources, their interest in reading may grow because magazines and newspapers normally contain articles and stories enjoyed by learners.

Schools and parents countrywide need to take a united stance and communicate the need for government to provide schools with reading materials. The schools can gather meaningful print-resources for their learners but the government has a bigger role to play in creating ready access to books. Teachers in Swaziland also need to counter the apathy that learners have towards reading. They can do that by modeling reading to their learners. For example, they can create reading slots in their timetables and make sure that during that time they sit in front of the learners and read and discuss the texts that they read. Such a habit can be exemplary and show learners that reading is important. Teachers can also create motivation to read books and harness learners' television attention and music entertainment with reading activities. For example, teachers may encourage the learners to listen and look to music lyrics to develop vocabulary. In addition to using electronic media for entertainment, teachers in Swaziland also need to alert learners to the fact that reading is power (Igwe 2011) and it empowers and emancipates individuals, especially in the knowledge economy of the 21<sup>st</sup> century.

- **Teaching comprehension**

Teachers need to know that failure to understand when reading results in avoidance habits. There is a need for teachers to explicitly teach comprehension strategies to help learners become better readers, which in turn can develop a love for reading. A number of learners in Swaziland struggle with comprehension at the inferential and evaluative levels, as shown in Chapters 4 and 5, and some perform poorly even with comprehension at the literal level. The findings of this study regarding poor comprehension at the three levels given above calls for teachers to explicitly teach comprehension strategies to learners. The field of explicit comprehension instruction has expanded rapidly in the past two decades, and many different comprehension strategies have been identified. Some of the comprehension strategies that can be taught are presented below.

1. *Problem solving strategies:* This comprehension strategy is used when dealing with unfamiliar words (House 2005). Teachers can advise learners to improve their comprehension of what they read through decoding, analyzing context clues, making

inferences, rereading or skipping meanings of unknown words. Exposing Swazi learners to such comprehension strategies may help to alleviate the failure to understand passages due to unknown vocabulary.

2. *Predicting*: Comprehension at the inferential level cannot only be enhanced by reading between the lines, but it can also be achieved by predicting upcoming content in a text. As learners read a line or a paragraph in a passage they may enhance comprehension by guessing what is likely to follow in the passage and this may help them understand what is not clearly stated in the passage and also help with engagement in the text.

3. *Activating background knowledge*: Learners need to know that what they already know can help them understand what they read. House (2005) opines that one way to help learners improve on inferential comprehension is to make associations to the content of reading on the basis of prior knowledge. For example, if learners are given a reading task they may start by looking at the title and make predictions about what the text will be about and ask themselves *what do I know about this topic?* The link between what they read and what they know about the topic activates background knowledge which may help them predict what the text is about.

4. *Asking questions*: Learners at times encounter textual information where they become uncertain of the implied meaning. To get understanding of the text in such situations, House (2005) further points out that teachers need to urge learners to ask themselves questions of what they are not sure of as they read the text and reread the sections where comprehension breaks down. For example, if learners encounter the sentence, *He is a snake*, they need not take the literal meaning but they need to ask themselves *why is the author describing him in such a way?* This may help the learners to figure out that such a description refers to a dangerous and untrustworthy person.

5. *Summarizing*: At the end of any given text, learners need to connect together what they read and have an idea of the theme or gist of the story or text. One way to achieve that is to be able to provide a brief summary of what they read and provide main points

of what the story is all about. Summary writing skills can be taught by helping learners identify main ideas in each paragraph and also teach them to differentiate main ideas from secondary ideas. In addition, learners must be helped to see the link between parts and the whole passage.

School administrators also need to put in place reading assessment and vocabulary assessment at the beginning of the year. This may help teachers to identify and help weaker readers and encourage stronger readers to greater heights. School teaching timetables should also include monitored reading periods where learners sit down quietly to read in either their L1 or L2. The reading time must not only be monitored but it must also be accompanied by follow up activities where learners can present summaries of what they read and also show the new vocabulary acquired from their reading. Other than summarizing and reporting on new vocabulary, teachers may ask learners to keep a record of books read every term. The teacher and the learners may work together in making posters in the class to list and track inspirational books read. This could encourage the learners to read, knowing that at the end they will have to report on what they read to avoid a situation where students use the reading period for chatting or doing homework. The results of the reading test suggest that most learners in Swaziland are non-readers as they achieved less than 25% on the RC tests (an indicator of being a non-reader). The results suggest that they lack exposure to the world of print materials and they also lack positive role models at home as they indicated in the reading questionnaire that most of their parents did not complete high school. In this area teachers need to advise parents to read stories for their children right from infancy, and also encourage parents to take interest in their children's learning by ensuring that homework is done and by asking their children to read to them.

Learners also need to be encouraged to read, and teachers need to monitor them as they read and make sure that learners have vocabulary notebooks which are used systematically throughout the day. This needs to be instilled in the learners from an early age.

- **Developing vocabulary**

The learners' poor vocabulary knowledge and poor reading ability suggest that word knowledge is important for reading comprehension. Teachers have a challenge to give learners vocabulary strategies for learning new words and the question becomes; *Are the teachers equipped to teach vocabulary learning strategies in the classroom or do they also have the same vocabulary issues faced by the learners?* In my twelve-year teaching experience, I have realized that as teachers of ESL we tend to have limited vocabulary and also lack skills of teaching vocabulary learning strategies to the learners.

Teachers need to adopt strategies to help learners to learn new words. The first step to achieving this can be by having a focused campaign in schools to raise awareness about vocabulary. In this area teachers need to inform learners that words are the very foundation of learning (Texas Reading Initiative 2002). Teachers also need to enhance incidental exposure to new words as well as maximise opportunities for explicit vocabulary instruction in class. To learn more words, teachers need to encourage wide reading among learners because students learn new words by encountering them in texts as they read. Increasing opportunities for meeting new words may improve student's vocabulary knowledge. Teachers also need to set goals and bench marks at each grade level and introduce explicit vocabulary teaching strategies. Stahl and Fairbanks (1986) point out that explicit vocabulary instruction of words and their meanings can contribute to vocabulary development. Such instruction is especially helpful for learners with limited vocabulary. During vocabulary instruction teachers may use both definitional and contextual information about word meanings, actively involve learners in word learning and use discussion to teach meanings of new words and also provide meaningful information about the words. For example, a teacher may put learners in a group to look at the word *memorandum* and to give its meaning, part of speech and to find out whether it is used as singular or plural form.

- **Implications for teacher training institutions**

The teacher's lack of knowledge on how to teach word knowledge strategies, reading comprehension and reading comprehension strategies to learners invites teacher training institutions to introduce training programmes that will give teachers better knowledge of handling vocabulary and comprehension issues in the classroom. As shown in Table 4.3, the lack of mastery of the 2000-word level by some of the learners suggests that they lack basic vocabulary or vocabulary that should have been mastered at primary school. This then predicts serious reading comprehension challenges as research (Qian 2002) shows that word knowledge plays an important role in reading comprehension.

Teacher training institutions need to teach teacher trainees more about reading in general and comprehension in particular. They need to pose the questions: *What proportion of the curriculum in teacher training colleges is actually dedicated to reading and literacy and are teachers being properly prepared to teach reading in the intermediate and higher grades?*

## **6.6 Suggestions for further research**

As stated earlier, there has not been much research done on reading, vocabulary, attitudes and academic performance in Swaziland. During the compilation of this study, only two relevant studies were available: the first one was on reading and academic performance at college level (Lukhele 2009) and the other was the SACMEQ data which provided a detailed analysis of Grade 6 Swazi learners reading and numeracy skills. However, this study only focused on the reading ability of primary students where reading passages are not as demanding as high school and tertiary reading where learners encounter more academic vocabulary and are expected to read larger and denser texts. There is thus a need in Swaziland to conduct more research involving both primary school and high school learners. That would give educators a better understanding of how best learners could be helped to improve their reading ability, vocabulary knowledge and academic performance from primary through to high school. The following are suggestions where further research studies could be conducted:

- ❖ It would be important to conduct a study similar to this one in the first three grades and also in Grades 4-7 because the first three grades are important for establishing basic reading skills ('learning to read') and Grades 4-7 are levels where students use their basic reading skills to 'read to learn'. Conducting a study as this one at primary school would be insightful because most of the reading problems observed at high school begin right from primary school. The primary school phase is a level where learners get meaningful exposure to books and reading. It is usually at primary school that the problem of limited exposure to books leading to weak reading ability begins.
- ❖ To get a clear insight on learners' reading ability and academic performance over time, there is a need for a longitudinal study right from primary school onwards, to monitor the progress of learners across the school grades. This would help researchers to be able to compare performance at the lower grades with performance at the higher grades using the same learners. Such a study would make it possible to monitor learners' progress in reading ability, attitudes, and academic performance. A study of this nature would also give insight on how, for example, students who excel in reading tests, vocabulary tests and academic performance at primary school perform at high school and how the poor readers at primary school perform at high school. Such insight would make schools and teachers understand how to maintain the good students and how to help the weaker students.
- ❖ There is a need for research in Swaziland into the importance of systematic and explicit vocabulary instruction across the school grades. A study on vocabulary development from the elementary grades will be important because research suggests that comprehension draws on vocabulary knowledge which develops incrementally over time. Research (Durkin 1978; Roser & Juel 1982; Watts 1995, in Lesaux, Kieffer & Kelly 2010) show that most classrooms incorporate little, if any, systematic and explicit vocabulary instruction in the curriculum.
- ❖ A study of how an encounter with various reading or non-reading experiences influence learners reading attitudes from primary school to high school could also be important. That would shed light on the type of reading experiences the worst performing learners

were exposed to and the type of reading experiences they had. This would give teachers an insight on how to keep learners motivated and enjoy the world of books.

- ❖ There is also a need for research to be conducted on how teachers are taught about reading in their training institutions for both primary and high school. From my knowledge, high school teachers in Swaziland over the past two decades undergo a general four-year degree in the Humanities which does not deal with literacy issues, and they then undergo a one-year training program where they would, on completion of the one year course, be awarded a Post Graduate Certificate in Education. This certificate was thought to be enough to give the prospective teachers all the knowledge needed to teach effectively at high school. Research on how sufficient such short training is may be conducted in future to determine how effective the teachers are in teaching reading at high school. There is also a need for research on what the primary and high school teacher's curriculum entails and to find out how much of the teacher training curriculum is spent on reading.

## **6.7 Concluding remarks**

This study examined the relationship between reading, vocabulary, reading attitudes, and academic performance among Form 5 learners in four of Swaziland's urban and rural state schools. With the exception of School D, the performance of the learners in the reading test was very poor, with rural schools performing worst of all. Performance in the ESL reading test in School A, and C was far below the mid-mark. The same was true for their academic performance mean score. Their performance was not only poor in the reading test but also in the vocabulary test. For example, after 12 years of schooling, only urban Schools B and D achieved mastery of the high frequency words, i.e. the 2000-word level, learners in all the four schools did not attain mastery of the rest of the word levels. This suggested that they had weak vocabulary knowledge. The learners should have known the high frequency words by the end of primary school. The learners also had low knowledge of academic words-the kinds of words they need to know to understand their content subject's textbooks.

The findings of this study revealed low levels of vocabulary knowledge, serious reading problems and poor academic performance from the participants. The findings in this study show that the poor ESL reading ability of the participants in this study had a negative effect in their academic performance. That was evidenced by the poor results or scores obtained by the participants in the Form 5 examinations despite their claims that they were avid readers with positive reading attitudes and ready access to print material.

All three variables namely, reading comprehension, vocabulary and academic performance, were found to be robustly related and the strongest correlation was between reading comprehension and academic performance. As stated in Chapter 4, these findings confirmed what has been found by researchers elsewhere, that there is a reciprocal relationship between reading, vocabulary and academic performance.

I am going to conclude this dissertation by drawing inspiration from the words of Igwe (2011) and Sisulu (2004) where they point out the importance of reading in life and at all levels of education. If Swaziland can develop a strong and viable reading culture it can:

- ❖ Be a nation of avid, lifelong readers who read widely and value books.
- ❖ Have a government that vigorously promotes the value of reading at home, school, and at community and at national levels.
- ❖ Have an education system that integrates reading, library use and information literacy education at the core of the curriculum at all levels of education and encourages reading for pleasure and lifelong learning.
- ❖ Have a flourishing writing and publishing industry to support the increasing demand for books and other reading materials from the education sector and the general public.
- ❖ Have a strong library network backed by an equitable information resources distribution system that ensures that everyone has access to a wide range of reading materials, regardless of economic status or geographic location.

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APPENDIX A

In reply please  
quote

Ref: No: .....



**KINGDOM OF SWAZILAND**  
**HHOHHO REGIONAL EDUCATION OFFICE**

TELEPHONE : 404-3761/2  
FAX: 404-2955  
9 July 2012

P. O. BOX 229  
MBABANE

The Head teacher

*St. Francis High*  
*P.O. Box 368*  
*Mbabane*

Dear Sir/Madam

**RE: PERMISSION TO CONDUCT A RESEACH STUDY IN YOUR SCHOOL**  
**MLUNGISI W. NXUMALO, UNIVERSITY OF**  
**SOUTH AFRICA (UNISA)**

This serves to confirm that the bearer of this letter, Mlungisi W. Nxumalo, is known to the Regional Education offices as a teacher at Woodlands High School who has enrolled with the above institution pursuing his Masters Degree in Applied Linguistics.

He has since approached this office seeking for permission to conduct a study in you school as requirement for completing the programme. The Research Topic is: **RELATIONSHIP BETWEEN READING ABILITY AND ACCADEMIC PERFORMANCE.**

Your office is kindly requested to allow and facilitate in making this study feasible.

Thanking you in advance for the anticipated positive cooperation in this matter.

Yours faithfully

*T.T. Langwenya*  
**T.T. LANGWENYA**  
**R.E.O. HHOHHO**



APPENDIX B

18 September 2012

The Academic Registrar  
Post-Graduate Studies  
University of South Africa

Dear Sir/ Madam

**Permission to do research at ST Francis high School- Swaziland**

Permission is hereby granted to Mlungisi Nxumalo to do some research among the form 5 learners enrolled in the above mentioned school.

The school administration pledges support for the researcher in this great work. We hope this study will benefit our community and the entire education system in Swaziland. We hope UNISA will assist him to achieve his goal, that being the research on the relationship between reading ability and academic performance.

Thank you.

Yours faithfully

*M. Melane*

Principal.



APPENDIX C

**UNIVERSITY OF CAMBRIDGE LOCAL EXAMINATIONS SYNDICATE**  
**Joint Examination for the School Certificate**  
**and General Certificate of Education Ordinary Level**

**ENGLISH LANGUAGE**                      **1115/2, 1120/2, 1123/2**  
**PAPER 2**    **1124/2, 1125/2**  
**INSERT**

**OCTOBER/NOVEMBER SESSION 2001**

1 hour 30 minutes

**INSTRUCTIONS TO CANDIDATES**

This insert contains the passage for comprehension.

APPENDIX C

2

(Laurens, the author of the following passage, describes how he and his companion, Tickie, set out through African territory, making for the coast. Their mission is to spy on criminals who have been illegally smuggling guns by sea into Africa.)

- 1 The first stage of our march lay through desolate and dangerous country called the Dead Land. No one lived there, for it was home to the tsetse fly, the murderous enemy of man and cattle alike. Too many bites from that insect and the fearful sleeping sickness was upon you. And beyond the Dead Land? Then came the blackness of the Great Forest, so thick and impenetrable, the locals said, that once inside it, blind fear took over and your heart beat quick and fast. 5
- 2 All that day we marched, swatting the sinister flies that attacked us, until at last the dying sun told us it was time to stop for the night. But it wasn't the tsetse fly that now assailed us. No sooner had we set up camp than the mosquitoes came at us in great swarms, thirsty for blood, and with a wild din. We crept under our mosquito nets, praying for some sort of a breeze to drive them away. 10
- 3 Next morning we set out, following the direction our map and compass dictated. Before long, the Great Forest loomed ahead. Immediately, we found our way hopelessly blocked, for the outskirts of the forest were defended by an intricate system of thorns of all kinds, so hooked and closely interlocked that no way could be found through it. In vain we tried to break into it with our knives and rifles, but each time the forest hurled us back. 15
- 4 'It's no good,' I said. 'Don't let's try any more. We've already wasted precious time.' I decided to take a chance and follow a different route along the side of the forest, trusting that we wouldn't find ourselves having to go a long way round. 20
- 5 Soon the track began to climb, until eventually, after about two hours, my ears picked up a sound I knew well.  
'Listen,' I said to Tickie. 'Listen carefully.'  
'What is it?' Tickie whispered.  
'You ought to know it,' I told him, 'for you've heard it often enough. It's the sea.' 25
- 6 I dropped my voice. 'From now on we must be very careful. This is the very place where the smugglers may be operating.' We walked stealthily on until we caught sight of a river below and a harbour close by. A ship lay at anchor. Stopping by a little clearing, I whispered to Tickie. 'Wait here, and keep under cover. I'm going on to see what's ahead.' I hadn't gone very far when I heard the confused murmur of people talking; I was dangerously near a camp of sorts. I crawled forward into the bush and sure enough soon spotted an open patch of ground, recently and deliberately prepared. Then in the distance a dozen men appeared, obviously coming from the direction of the sea below, and carrying long, heavy wooden boxes slung between their broad shoulders. There could be no doubt as to what the boxes contained. 30 35
- 7 I was just about to make my way back to Tickie when deep from the surrounding bush came the sound of rifle-fire. In an instant men in grey uniforms came running out of the camp, and disappeared in the direction of the gun-fire. *Tickie*, I thought. *Someone's found Tickie*. Sick with anxiety, I crawled quickly back to where I'd left him. But there was no sign of him. The clearing was empty. All around, the bushes were torn, and the ground deeply marked, as though heavy boots had thundered around it. They'd found him all right. Suddenly there came a soft whisper. 'Laurens, Laurens.' I looked round and there was Tickie, hidden in the bush like some veteran jungle fighter. He pointed towards bright red spots on the ground, like the newly-fallen leaves of some crimson flower. Nearby, slumped against a tree, lay a uniformed corpse. I looked at Tickie. His eyes were no longer those of a young man; he'd passed into a painful maturity in his perilous encounter with death. I'd no need to ask questions. 40 45

- 8 The man Tickie had killed was a sign of danger on a much larger scale, I knew only too well. If we could only avoid detection in the dark woods until nightfall, or until the rain came in the afternoon, we had a chance of getting away. We set about covering up traces of our brief presence in the clearing, although I realised that our only hope was for wind and rain; they alone could really wipe out our tracks. As soon as we'd finished, we crawled towards some low-growing thorn trees, and hid ourselves beneath their ground-sweeping branches. We lay so still and silent that the birds came and pecked unconcerned among ferns at our feet. Time dragged slowly by. Then I noticed that other birds were gathering in the tops of trees round about us. This was enough to make our nerves tingle. Instinct had made these little creatures retreat warily in our direction. We lay flat on our stomachs, our guns cocked and ready. 50
- 9 'Laurens!' Tickie whispered, soft and slow. 'People! Many people! On your side.' I looked round and there, just coming into view, were the same grey uniforms that I'd seen earlier. I uttered a heart-felt prayer for rain, and, as if in answer, a deep rumble of thunder rolled across the sky. But rain was still far off. 55
- 10 'Tickie,' I murmured, 'don't move or make one sound. We'll lie here until they find us – and they'll have to come close before they do so. We'll fire at and around them so fast that they'll be bewildered, and at that moment you and I will slip out of cover. If I'm killed or wounded I don't want you to linger with me. I count on you to get back with news of what we've discovered.' Even as I spoke, fresh evidence of the progress of our enemies was coming onto the scene. A little deer dived over a bush in front of me without a backward glance. Hard behind, another one bounded lightly after her. A sharp flash of lightning cut through the sky. Automatically I began counting the seconds between the flash and the first note of thunder. On the eleventh, a long roll of sound swept over us. That meant the thunder was about three kilometres away. I peered at the clouds, looking anxiously for the first blur of rain. 60
- 11 At that moment, a whistle went up from the bush beyond, loud and clear, and was swiftly answered by a series of crisp, urgent cries; the whole bush broke out into the sound of men crashing through it, without effort at disguise. I was certain they were on the final phase of their search. It seemed that Tickie and I had little chance of escape, unless the rain broke almost at once. I looked at the sky but the rain seemed no nearer than before. I put my hand in my pocket and laid another five rounds of ammunition on the soil in front of me. 65
- 12 Hardly had I done so when men came pouring past us, bounding over the smaller bushes as easily as well-trained athletes over hurdles, so close that I could hear their breathing and smell their acid sweat. Yet somehow they didn't see us because their eyes and ears were distracted by that sharp summons whistled from beyond. 70
- 13 A drop of rain hit a twig beside me, followed by another. I peered up, and saw that the dark clouds were now releasing their burden against a backdrop of crackling lightning and rolling thunder. I knew our immediate danger was over. At the same moment, I believe that our enemies, too, came to this conclusion. Commands began to ring out from the direction of their camp up ahead. Both of us lay there motionless until the noise of falling rain, the crackling of lightning and rumbling of thunder overwhelmed the shouts. Soon they began to fade into the distance. I turned round to face Tickie. 'Well, that's that, Tickie,' I said, trying to speak quite normally. 'We can get ready to go now.' 75

APPENDIX C

**UNIVERSITY OF CAMBRIDGE LOCAL EXAMINATIONS SYNDICATE**  
**Joint Examination for the School Certificate**  
**and General Certificate of Education Ordinary Level**

**ENGLISH LANGUAGE**                      **1115/2, 1120/2, 1123/2**  
**PAPER 2**    **1124/2, 1125/2**

**OCTOBER/NOVEMBER SESSION 2001**

1 hour 30 minutes

Additional materials:  
Answer paper

**TIME** 1 hour 30 minutes

**INSTRUCTIONS TO CANDIDATES**

Write your name, Centre number and candidate number in the spaces provided on the answer paper/answer booklet.

Answer **all** questions.

Leave a space of **one** line between your answers to **each part** of a question, e.g. between **1(a)** and **1(b)**. Leave a space of at least **three** lines after your completed answer to each **whole** question.

Write your answers on the separate answer paper provided.

If you use more than one sheet of paper, fasten the sheets together.

**INFORMATION FOR CANDIDATES**

The number of marks is given in brackets [ ] at the end of each question or part question.

The insert contains the passage for comprehension.

Mistakes in spelling, punctuation and grammar may be penalised in any part of the Paper.

APPENDIX C

2

Read the passage in the insert and then answer all the questions which follow below.

You are recommended to answer the questions in the order set.

Mistakes in spelling, punctuation and grammar may be penalised in any part of the Paper.

From paragraph 1:

- 1 (a) Give the reason why the tsetse fly is described as a 'murderous enemy of man'. [1]  
(b) What effect did the Great Forest have upon people who entered it? [1]

From paragraph 3:

- 2 The two men found their way 'hopelessly blocked' by the thorn bushes of the forest. What made it 'hopeless' to try to get through them? [1]

From paragraph 4:

- 3 Apart from the disappointment they felt at their failure to enter the forest, what else worried them? [1]

From paragraph 6:

- 4 The ship at anchor alerted Laurens to the possible presence of the gun-smugglers. How are his suspicions confirmed in this paragraph? [1]

From paragraph 7:

- 5 (a) What at first made Laurens think that Tickie had been discovered? [1]  
(b) What feeling do you think Laurens wants to create in the reader by the comparison of the 'bright red spots' with the fallen leaves of a flower? [1]  
(c) Tickie's 'perilous encounter' had a marked effect on him, according to Laurens. Explain in your own words what this effect was. [2]

From paragraph 8:

- 6 (a) Laurens believed that the man Tickie had killed 'was a sign of danger on a much larger scale'. Explain fully what was now frightening Laurens. [1]  
(b) What was unusual about the behaviour of the birds around the two men as they lay hidden? [1]  
(c) Why do you think the behaviour of the birds up in the trees was so alarming for them? [2]  
(d) 'Time dragged slowly by.' What made time seem to pass so slowly? [1]

APPENDIX C

From paragraph 9:

- 7 Laurens uttered a 'heart-felt prayer for rain'. Explain what is meant by 'heart-felt'. [1]

From paragraph 10:

- 8 Laurens explained to Tickie what they had do if their discovery proved unavoidable. What admirable aspect of Laurens's character do you think his instructions reveal? [1]

From paragraph 11:

- 9 Laurens believed that the gun-smugglers 'were on the final phase of their search'. Apart from their 'urgent cries', explain **in your own words** what else made him so certain. [2]

From paragraph 13:

- 10 'I knew our immediate danger was over.' What **two** reasons did Laurens have for thinking this? [2]

From the whole passage:

- 11 Choose **five** of the following words or phrases. For each of them give **one** word or short phrase (of not more than **seven** words) which has the same meaning that the word or phrase has in the passage.

- |                         |                        |
|-------------------------|------------------------|
| 1. desolate (line 1)    | 5. detection (line 51) |
| 2. assailed (line 9)    | 6. count on (line 69)  |
| 3. dictated (line 12)   | 7. evidence (line 70)  |
| 4. stealthily (line 27) | 8. fade (line 96)      |
- [5]

- 12 Laurens and Tickie were forced to hide from the gun-smugglers. **Using your own words as far as possible**, summarise what they did to avoid discovery and capture, the signs they had that they were close to being discovered, and what eventually saved them.

**USE ONLY THE MATERIAL FROM LINE 52 TO LINE 98.**

Your summary, which must be in continuous writing (not note form), must not be longer than **160** words, including the **10** words given below.

Begin your summary as follows:

Knowing that the search for us had begun, we started ... [25]

READING QUESTIONNAIRE

Name.....

Age..... Class..... School.....

Sex: (circle the applicable to you) Female  Male

1. What is your mother tongue?..... SiSwati .....

2. What other languages do you speak in your home?.....

3. In which language do you do most of your reading?

- (a) SiSwati
- (b) English
- (c) Other (specify).....

4. Do you enjoy reading? (Circle the option that is applicable)

- (a) Very much
- (b) Quite a lot
- (c) A little
- (d) Not at all

5. Which of the following do you read? (Tick the relevant)

- (a) Newspapers
- (b) Novels
- (c) Magazines
- (d) Photo stories
- (e) Other (specify).....

6. Are you a member of a public library? (Underline the applicable option).

Yes or No

7. When did you last read a book?

- (a) A week ago
- (b) A month ago
- (c) A year ago
- (d) Can't remember
- (e) Recently

8. Write the title of the book you last read.....

**APPENDIX D**

**9. What kinds of books do you enjoy reading? (Circle the option that is applicable).**

- (a) Novels
- (b) Religious books
- (c) Plays
- (d) Other (specify).....

**10. How often do you go to the school library to take out books?**

- (a) Once a week
- (b) Once a month
- (c) Once a term
- (d) Never

**11. Do you have a reading period in your class? (Circle the applicable option). Yes or No**

**12. What kinds of books do you read during the reading period in your class?**

- (a) Newspapers
- (b) Novels
- (c) Pace setters
- (d) anything worth reading
- (e) None

**13. How do you learn new words in English? (Tick as many options as relevant).**

- (a) Reading novels
- (b) From a dictionary
- (c) Listen for unfamiliar words in class
- (d) Other (specify).....

**14. How many words do you think you know in English?**

- (a) Many words
- (b) A few words

**15. What is the highest qualification your mother has?**

- (a) Primary certificate
- (b) Secondary certificate
- (c) High School certificate
- (d) College or University certificate
- (e) None

**APPENDIX D**

**16. What kinds of problems do you have when you read in English ? ( Tick the relevant to you )**

- (a) There are lots of words that I do not know
- (b) There are many grammatical structures I have a problem understanding
- (c) It is not easy to understand what the story is about
- (d) In general I am a slow reader

**17. When you were younger did your parents ever read stories to you?**

- (a) Never
- (b) Seldom
- (c) Sometimes
- (d) Often

**18. How often is a newspaper bought in your home?**

- (a) Daily
- (b) Occasionally
- (c) Once a week
- (d) Never

**19. How many books are there in your home? (Tick)**

- (a) More than 100
- (b) More than 50
- (c) More than 20
- (d) More than 10
- (e) None

**20. Explain why you think reading is important or not important in school.**

.....  
.....  
.....  
.....  
.....

*Adapted from the Academic Literacy Research Unit*

## APPENDIX E

### VOCABULARY LEVELS TEST (Active version)

(Laufer & Nation 1995)

Complete the underlined words. The first one has been done for you.

#### The 2,000-word level.

He was riding a bicycle.

They will restore the house to its orig\_\_\_\_\_ state.

Each room has its own priv\_\_\_\_\_ bath and WC.

The tot\_\_\_\_\_ number of students at the university of 12,347.

They met to ele\_\_\_\_\_ a new president.

Many companies were manufac\_\_\_\_\_ computers.

The lakes become ice-free and the snow mel\_\_\_\_\_ .

They managed to steal and hi\_\_\_\_\_ some knives.

I asked the group to inv\_\_\_\_\_ her to the party.

She shouted at him for spoi\_\_\_\_\_ the lovely evening.

You must spend less until your deb\_\_\_\_\_ are paid.

His mother looked at him with love and pri\_\_\_\_\_ .

The wind roa\_\_\_\_\_ through the forest.

## APPENDIX E

There was fle\_\_\_\_\_ and blood everywhere.

She earns a high sal\_\_\_\_\_ as a lawyer.

The sick child had a very high tempe\_\_\_\_\_.

The bir\_\_\_\_\_ of her first child was a difficult time.

In A.D. 636 an Arab army won a famous vic\_\_\_\_\_ over another army.

### The 3,000-word level.

They need to spend less on adminis\_\_\_\_\_ and more on production.

He saw an ang\_\_\_\_\_ from Heaven.

The entire he\_\_\_\_\_ of goats was killed.

Two old men were sitting on a park ben\_\_\_\_\_ and talking.

She always showed char\_\_\_\_\_ towards those who needed help.

He has a big house in the Cape Prov\_\_\_\_\_.

Oh Harold dar\_\_\_\_\_, I am sorry. I did not mean to upset you.

Judy found herself listening to the last ec\_\_\_\_\_ of her shoes on the hard floor.

He cut three large sli\_\_\_\_\_ of bread.

He sat in the shade beneath the pa\_\_\_\_\_ trees.

He had a crazy sch\_\_\_\_\_ for perfecting the world.

They get a big thr\_\_\_\_\_ out of car-racing.

At the beginning of their journey they ecoun\_\_\_\_\_ an English couple.

Nothing illus\_\_\_\_\_ his selfishness more clearly than his behaviour to his wife.

## APPENDIX E

He took the bag and tossed \_\_\_\_\_ it into the bushes.

Every year she looked forward to her annual \_\_\_\_\_ holiday.

There is a definite \_\_\_\_\_ date for the wedding.

His voice was loud and savagely \_\_\_\_\_, and shocked them all to silence.

### The 5,000-word level

Some people find it difficult to become independent. Instead they prefer to be tied to their mother's apron \_\_\_\_\_ strings.

After finishing his degree, he entered upon a new phase \_\_\_\_\_ in his career.

The workmen cleaned up the mess \_\_\_\_\_ before they left.

On Sunday, in his last sermon \_\_\_\_\_ in Church, the priest spoke against child abuse.

Her favourite musical instrument was a trumpet \_\_\_\_\_.

The building is heated by a modern heating apparatus \_\_\_\_\_.

He received many compliments \_\_\_\_\_ on his dancing skill.

People manage to buy houses by raising a mortgage \_\_\_\_\_ from a bank.

At the bottom of a blackboard there is a ledge \_\_\_\_\_ for chalk.

After falling off his bicycle, the boy was covered with bruises \_\_\_\_\_.

The child was holding a doll in her arms and hugging \_\_\_\_\_ it.

We'll have to be inventive and devise \_\_\_\_\_ a scheme for earning more money.

The picture looks nice; the colours blend \_\_\_\_\_ really well.

Nuts and vegetables are considered wholesome \_\_\_\_\_ food.

## APPENDIX E

The garden was full of fra\_\_\_\_\_ flowers.

Many people feel depressed and gl\_\_\_\_\_ about the future of mankind.

### The University Word List level

The afflu\_\_\_\_\_ of the western world contrasts with the poverty in other parts.

The book covers a series of isolated epis\_\_\_\_\_ from history.

Farmers are introducing innova\_\_\_\_\_ that increase the productivity per worker.

They are suffering from a vitamin defic\_\_\_\_\_ .

There is a short term oscill\_\_\_\_\_ of the share index.

They had other means of acquiring wealth, pres\_\_\_\_\_, and power.

The parts were arranged in an arrow-head configu\_\_\_\_\_ .

The learners were studying a long piece of written disco\_\_\_\_\_ .

People have proposed all kinds of hipt\_\_\_\_\_ about what these things are.

The giver prefers to remain anony\_\_\_\_\_ .

The elephant is indig\_\_\_\_\_ to India.

You'll need a mini\_\_\_\_\_ deposit of \$20,000.

Most towns have taken some eleme\_\_\_\_\_ civil defence precautions.

The presentation was a series of sta\_\_\_\_\_ images.

This action was necessary for the ulti\_\_\_\_\_ success of the revolution.

He had been expe\_\_\_\_\_ from school for stealing.

The lack of money depressed and frust\_\_\_\_\_ him.

## APPENDIX E

The money from fruit-picking was a suppl\_\_\_\_\_ to their regular income.

### The 10,000-word level

He wasn't serious about art. He just da\_\_\_\_\_ in it.

Her parents will never acq\_\_\_\_\_ to such an unsuitable marriage.

Pack the dresses so that they won't cre\_\_\_\_\_ .

Traditionally, men were expected to nu\_\_\_\_\_ women and children.

Religious people would never bl\_\_\_\_\_ against God.

The car sk\_\_\_\_\_ on the wet road.

The politician delivered an arrogant and pom\_\_\_\_\_ speech.

The Romans used to hire au\_\_\_\_\_ troops to help them in their battles.

At the funeral, the family felt depressed and mo\_\_\_\_\_ .

His pu\_\_\_\_\_ little arms and legs looked pathetic.

A vol\_\_\_\_\_ person will change moods easily.

The debate was so long and tedious that it seemed int\_\_\_\_\_ .

Drink it all and leave only the dre\_\_\_\_\_ .

A hungry dog will sa\_\_\_\_\_ at the smell of food.

The girl's clothes and shoes were piled up in a ju\_\_\_\_\_ on the floor.

Some monks live apart from society in total sec\_\_\_\_\_ .

The enemy suffered heavy cas\_\_\_\_\_ in the battle.

## APPENDIX E

When the wedding celebrations and rev \_\_\_\_\_ ended, there were plenty of drunk people everywhere.

**APPENDIX F**

**Urban/ rural Spearman's correlations for reading attitudes, habits and access**

School		Attitude	Habits	Access
School A: Male	Attitude	1.000	-0.132	0.107
	correlation			
	Sig. (2-tailed)		0.756	0.801
	N	8	8	8
	Habits	-0.132	1.000	0.040
	correlation			
	Sig. (2-tailed)	0.756		0.925
	N	8	8	8
	Access	0.107	0.40	1.000
correlation				
Sig. (2-tailed)	0.801	0.925		
N	8	8	8	
Female	Attitude	1.000	0.464	0.533
	correlation			
	Sig. (2-tailed)		0.129	0.74
	N	12	12	12
	Habits	0.464	1.000	0.386
	correlation			
	Sig. (2-tailed)	0.129		0.216
	N	12	12	12
	Access	0.533	0.386	1.000
correlation				
Sig. (2-tailed)	0.74	0.216		
N	12	12	12	
School C: Male	Attitude	1.000	0.86	0.438
	correlation			
	Sig. (2-tailed)		0.022	0.325
	N	7	7	7
	Habits	0.826	1.000	0.425
	correlation			
Sig. (2-tailed)	0.022		0.342	
N	7	7	7	
Access	0.438	0.425	1.000	
correlation				
Sig. (2-tailed)	0.325	0.342		

**APPENDIX F**

	N	7	7	7
Female Attitude	correlation	1.000	0.928	0.567
	Sig. (2-tailed)		0.008	0.240
	N	6	6	6
Habits	correlation	0.928	1.000	0.441
	Sig. (2-tailed)	0.008		0.381
	N	6	6	6
Access	correlation	0.567	0.441	1.000
	Sig. ( 2-tailed)	0.240	0.381	
	N	6	6	6
School B: Male Attitude	correlation	1.000	0.012	-0.156
	Sig. (2-tailed)		0.977	0.712
	N	8	8	8
Habits	correlation	0.012	1.000	-0.438
	Sig. (2-tailed)	0.977		0.277
	N	8	8	8
Access	correlation	-0.156	-0.438	1.000
	Sig. ( 2-tailed)	0.712	0.277	
	N	8	8	8
Females Attitude	correlation	1.000	-0.289	-0.221
	Sig. (2-tailed)		0.488	0.598
	N	8	8	8
Habits	correlation	-0.289	1.000	0.783
	Sig. (2-tailed)	0.488		0.022
	N	8	8	8
Access	correlation	-.0221	0.783	1.000
	Sig. (2-tailed)	0.598	0.022	
	N	8	8	8
School D: Male Attitudes	correlations	1.000	0.642	0.534
	Sig. (2-tailed)		0.086	0.173

**APPENDIX F**

	N	8	8	8
	Habits correlations	0.642	1.000	0.875
	Sig. (2-tailed)	0.086		0.004
	N	8	8	8
	Access correlations	0.534	0.875	1.000
	Sig. (2 tailed)	0.173	0.004	
	N	8	8	8
Females	attitudes correlation	1.000	0.583	0.242
	Sig. (2-tailed)		0.170	0.602
	N	7	7	7
	Habits correlation	0.583	1.000	0.241
	Sig. (2-tailed)	0.170		0.602
	N	7	7	7
	Access correlations	0.242	0.241	1.000
	Sig. (2-tailed)	0.602	0.602	
	N	7	7	7

**APPENDIX G**

School	Rtotal	Totalvocab	AP		
School A: Male	Rtotal	correlation	1.000	0.325	-0.048
		Sig. (2-tailed)		0.432	0.910
	N		8	8	8
	Totalvocab	correlation	0.325	1.000	0.814
		Sig. (2-tailed)	0.432		0.014
	N		8	8	8
	AP	correlation	-0.048	0.814	1.000
		Sig. (2-tailed)	0.910	0.014	
	N		8	8	8
Female	Rtotal	correlation	1.000	0.563	0.676
		Sig. (2-tailed)		0.057	0.016
	N		12	12	12
	Totalvocab	correlation	0.563	1.000	0.723
		Sig. ( 2-tailed)	0.057		0.008
	N		12	12	12
	AP	correlation	0.676	0.723	1.000
		Sig. (2 tailed)	0.016	0.008	
	N		12	12	12
School C: Male	Rtotal	correlation	1.000	-0.630	0.019
		Sig. (2-tailed)		0.129	0.968

**APPENDIX G**

	N	7	7	7
Totalvocab	correlation	-0.630	1.000	-0.018
	Sig. (2-tailed)	0.129		0.969
	N	7	7	7
AP	correlation	0.019	-0.018	1.000
	Sig. (2-tailed)	0.968	0.969	
	N	7	7	7
Female Rtotal	correlation	1.000	0.203	0.868
	Sig. (2-tailed)		0.700	0.025
	N	6	6	6
Totalvocab	correlation	0.203	1.000	0.116
	Sig. (2-tailed)	0.700		0.827
	N	6	6	6
AP	correlation	0.868	0.116	1.000
	Sig. (2-tailed)	0.025	0.827	
	N	6	6	6
School B: Male Rtotal	correlation	1.000	0.072	0.181
	Sig. (2-tailed)		0.865	0.668
	N	8	8	8
Totalvocab	correlation	0.072	1.000	0.095
	Sig. (2-tailed)	0.865		0.823
	N	8	8	8
AP	correlation	0.181	0.095	1.000
	Sig. (2-tailed)	0.668	0.823	
	N	8	8	8
Females Rtotal	correlation	1.000	0.587	0.903
	Sig. (2-tailed)		0.126	0.002
	N	8	8	8
Totalvocab	correlation	0.587	1.000	0.639
	Sig. (2-tailed)	0.126		0.088

**APPENDIX G**

		N	8	8	8
	AP	correlation	0.903	0.639	1.000
		Sig. (2-tailed)	0.002	0.088	
		N	8	8	8
School D: Male	Rtotal	correlations	1.000	-0.623	0.612
		Sig. (2-tailed)		0.099	0.107
		N	8	8	8
	Totalvocab	correlations	-0.623	1.000	-0.590
		Sig. (2-tailed)	0.099		0.123
		N	8	8	8
	AP	correlations	0.612	-0.590	1.000
		Sig. (2-tailed)	0.107	0.123	
		N	8	8	8
Females	Rtotal	correlation	1.000	0.487	0.631
		Sig. (2-tailed)		0.268	0.129
		N	7	7	7
	Totalvocab	correlation	0.487	1.000	0.718
		Sig. (2-tailed)	0.268		0.069
		N	7	7	7
	AP	correlations	0.631	0.718	1.000
		Sig. (2-tailed)	0.129	0.069	
		N	7	7	7