AN ANALYSIS OF ORAL AND WRITTEN NARRATIVE DISCOURSE PRODUCTION OF SWAZI BILINGUALS

A thesis submitted to the Faculty of Humanities,

Department of Linguistics at the University of the Witwatersrand,

in fulfilment of the requirements

for the Degree of Doctor of Philosophy in Linguistics

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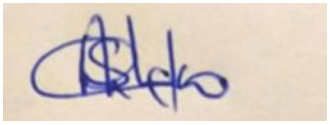
DECLARATION

I declare that:

This thesis presents research work I personally carried out and does not incorporate without acknowledgement any material previously submitted for a degree or diploma at any University; and to the best of my knowledge, it does not contain any materials previously published or written by another person except where due reference is made in the text, and all substantive contributions by other persons to the work presented, including jointly authored publications, are clearly acknowledged.

This declaration unequivocally states that this is my own, original work. Where secondary material has been used (either from a printed source, a previously unpublished research report, or electronic media), this has been meticulously acknowledged and referenced.

Cynthia Nomagugu Nhleko



ACKNOWLEDGEMENTS

I would like to express my gratitude to all who accompanied me on this journey and helped me directly and indirectly, in completing this dissertation.

First and foremost, I am profoundly thankful to Dr Ramona Kunene Nicolas, my supervisor, for her exceptional source of knowledge, immense support, understanding and encouragement throughout the years, and above all for her relentless patience and guidance throughout the process.

Many thanks to Professor Gillian Finchilescu for her professional help with statistical analyses.

I would also like to express my appreciation to SANU, Nazarene Schools, lecturers, teachers, parents and students for agreeing to participate in this research undertaking. Their cooperation and interest in this research project made its completion possible. Thanks to Nonhlanhla and Saaliha, my PhD colleagues, for their help in transcribing, coding and also endless support during this long journey. Thanks also to Ps Dumsile, Temacusi, Xoliswa, Lucky, Eugene, Didibhuku, Londu and Mcolisi, for their encouragement and support in completing this dissertation. Finally, I am deeply grateful to my family for their constant source of encouragement, as well as spiritual and emotional support during hard times over the years; without them, this thesis would not have been completed. To Alakhe, thanks for being my source of hope and happiness as my granddaughter each passing day. To Nonhlanhla and Anele my daughters for their loving support and prayers.

Above all, the support of the DSI-NRF Centre of Excellence in Human Development at the University of the Witwatersrand, Johannesburg in the Republic of South Africa towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author and are not to be attributed to the CoE in Human Development.

ABSTRACT

The aim of this research was to compare oral and written narratives produced by 9-year old and 13-year old bilingual children, and adults who spoke both English and siSwati. The research project investigated whether there was an effect of age when children and young adults produced narratives. Further, whether there was an effect of language on the narrative production of English-siSwati bilinguals. The sample consisted of 45 individuals: 15 9-year-old children, 15 13-year-old children, and 15 university adults, living in Manzini, Eswatini, who spoke English and siSwati. The participants used mainly siSwati in the home. The participants created a story in the oral and written modes, in both English and siSwati, using a muted film/cartoon entitled "The Boy who Learned to Fly, Usain Bolt"; the language order was counterbalanced. Data were transcribed and coded for three indices of narrative production: narrative length (number of clauses, number of words), pragmatics (types of pragmatic acts), and macro-structural episodes.

Results of t-tests for dependent samples revealed differences in the production of narratives of English-siSwati bilingual speakers across the different modalities. Most importantly, the results show that there were differences in the production of narratives by language, regardless of the modality being studied. An analysis of the variance (ANOVA) revealed that age plays a role in the production of narratives but its effect differed by language, as seen by the significant interactions of age and language in all but two of the constructs we considered in this analysis (excluding the number of words and number of non-narratives).

The results have implications for clinical therapeutic settings, in that they allow for the variation revealed by the narratives in relation to children and adults' competencies in the different languages (English and siSwati). These findings can also help policymakers and educators in dealing with children's development in English and siSwati (spoken and written language skills) and their literacy from primary school to university level.

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CHAPTER 1 INTRODUCTION

1.1 Background

Swazi-speaking children and young adults are often confronted with academic difficulties in Eswatini, formerly Swaziland, because of the bilingual reality that exists in the country. At Eswatini, siSwati is the mother tongue to 75% of Swazi people (Lewis, Simons & Fennig, 2015) and English is a second language (L2) and also a medium of instruction in the educational system starting from grade 5 up to tertiary level (Ministry of Education and Training, 2011). Given this bilingual situation, this thesis adopts the position that examining the productions of narrative discourse in both spoken and written modalities of the two languages by the Swazi bilinguals can assist significantly in overcoming the prevailing educational challenges. Examination of children's production of narratives and their literate skills offers much insight into children's language skills (Heilmann, Miller & Nockerts, 2010, p. 609; Bohnacker and Lindgren, 2020). The narrative discourse productions assist the researcher in identifying and describing the cognitive processing skills that are challenging, thereby influencing the need for cognitive development in those areas that are lacking, so as to maximise academic success in the bilingual Swazi context. Therefore, this thesis intends to establish the differences in the cognitive processing skills in the two languages. The consequence of this could be affecting instructional strategies and providing greater opportunities to build the bilinguals' speaking and writing skills. This chapter provides the aim of the study, gives a brief overview of the language policy of Eswatini, presents the rationale and problem statement, outlines the linguistic sketch of English and siSwati languages, and states the research questions and objectives of the study and an overview of chapters.

1.2 The Aim of the Study

This study seeks to provide empirical evidence for the comparison of written and oral productions in narrative discourse of English-siSwati bilingual children and young adults. The study aims to advance our understanding of the different processing demands posed by the two languages across school-age young and older children, into adulthood. This study will uncover comparative information on bilingual narrative productions of English and siSwati, a less-studied language. Consequently, knowledge of English-siSwati bilingual productions of narratives can be

used to assist in alleviating the challenges faced by students in demonstrating their knowledge and comprehension of English, a second language.

1.3 Brief Overview of the Language Policy of Eswatini

According to the existing language policy draft in the Ministry of Education, the language of instruction is supposed to be siSwati, the mother tongue from grade 1 to grade 4, with English taught as a subject from grade 1. From grade 5, learners are transitioned into English medium of instruction and required to demonstrate their knowledge and comprehension of English, which is their L2 or even L3 (Ministry of Education and Training, 2011, p. 9). In reality, this is not the case. English is, in fact, the medium of instruction from the very first grade but the challenges in academic performance still persist amongst the Swazi students.

The use of English language in Eswatini dates back to the colonial era when the Kingdom of Eswatini, was a protectorate of South Africa from 1894, becoming a British protectorate in 1903 (UNICEF, 2016, p. 4). When Eswatini achieved its independence in 1968, siSwati (the national language) and English (the second language) were adopted as the country's two official languages, thus the monolingual state technically became a bilingual state. Mordaunt (1990, p. 133) states that for a third world country to progress into a modern state, there is a need for it to adopt an already major world language. Thus, Eswatini adopted the English language to be used as the channel of international communication in science and technology, commerce and politics. Even though Eswatini became independent over five decades ago, English continues to be the language used as the vehicle for education and economic development. Recent statistics on the numbers of siSwati and English speakers have shown that the Swazi population is about 1.4 million citizens, of which approximately 75% speak siSwati and less than 10% speak English (Lewis, Simons & Fennig, 2015). The Constitution of the Kingdom of Eswatini clearly articulates that siSwati and English are the official languages and it is from this constitution that Eswatini's language policy is drawn (The Government of Eswatini, 2005 p.38). The Eswatini Education Sector and Training Policy clearly expresses the Eswatini government's policy concerning the place of English and siSwati:

> "SiSwati and English are both regarded as official languages in the Constitution of the Kingdom of Swaziland… The Policy directive is that the mother tongue siSwati shall be

used officially as a medium of instruction for the first four grades of school, after which English shall be the medium of instruction… This does not mean that teaching and learning materials in English shall be translated into siSwati, however; what it means is that teachers in the first four grades of school have the liberty and freedom to use siSwati as a medium of instruction where learners have difficulties in understanding what is taught" (Ministry of Education and Training, 2011, p. 27).

1.4 Rationale

There are many differences that children in diverse languages and social cultures can reveal, especially in the production of narrative discourse (Fiestas & Peña, 2004, p. 161). The divergences are described in various literature in relation to the sequence of action, the main verb tenses and the total number of words in a story (Berman & Slobin, 1994; Gutiérrez-Clellen, Peña & Quinn, 1995). However, in all studies undertaken so far, not many studies of children in bilingual settings state that narratives could pose different processing demands in both their languages (Dart, 1992; Gutiérrez-Clellen, 2002). It is therefore imperative to find out if differences occur in the narrative abilities of early sequential bilingual young and older children and young adults with comparatively the same proficiency in their two languages. Furthermore, it should be noted that the use of narratives in order to assess children with language and learning paucities has become common. Therefore, the use of narrative samples is an important tool that assists diagnosis and provides information about a child's language proficiency in planning and formulating discourse at higher levels. Therefore, this study used narratives as an assessment tool for the bilinguals. Moreover, since no previous study has tried to compare sequential bilinguals' written and oral narrative productions, it is reasonable and valuable to investigate oral and written language of the narrative genre (particularly the vicarious narrative - imaginary narration about the life of another person as opposed to personal narrative) to discover the comparative information about young and older children and also young adults' bilingual narrative productions in English and siSwati, a less-studied language.

Furthermore, this study is important because it will compare the narrative abilities/skills of sequential bilingual English-siSwati speaking children in their two languages, with the purpose of giving a clear and complete description of their narrative discourse proficiency. This will also provide a better understanding of the connections between their languages. Furthermore, this study

is imperative because the genre of narrative, for instance, has been scarcely used to draw comparisons between speech and writing. Specifically, many studies investigating narratives focus on the examination of structures in narrative production in written or oral language, with more stress on oral narratives. Therefore, there is a serious need to investigate the narrative production of oral language in comparison with the written form, which will undoubtedly allow one to draw important conclusions about the production in narrative discourse as a specific genre.

Given that there is limited literature investigating narrative production in oral language in comparison with the written version, particularly in a bilingual situation, it was essential to conduct this study. The insights of this research can be used to develop models of language for English-siSwati productions in narrative discourse. This process will also lead to a framework for understanding the interactions and relationships that outline learning two languages, instead of only one, and how it affects the information processing systems in children's language learning. This research will lead to the creation of a model of production in narratives for Swazi children. This kind of model is needed to address the constant educational challenges and problems involving language in bilinguals. The aim would be to improve their academic achievement in order to empower them to contribute to Eswatini's political, economic and social future, and also contribute to our better understanding of the nature of the human language faculty (Grosjean, 1989; Heugh, 2002, 2009). There is an acute need for this line of research to provide an accurate view of how educators, practitioners, and policymakers are able to implement best practice in the education of bilingual children (Heugh, 2002, 2009) and thereby result in optimal educational outcomes. Moreover, conducting this study will help educationists and language therapists with a language framework for English-siSwati productions in narrative discourse.

1.5 Problem Statement

In an educational context, speaking and writing are considered the 'macro-skills to learning, processing, organising, storing' and retrieving information during the school years,' in addition to 'communicating with teachers and peers' (Perera, Aparici, Rosado, & Salas, 2015; Ravid, Shalom, Dattner, Katzenberger & Sha'shoua, 2016, p. 346). In the school context in Eswatini, there has been a recent introduction of oral examinations in the school curriculum to enhance the English-siSwati bilinguals' speaking and writing skills.

However, this positive advancement (the introduction of oral examinations) in the education system has not been implemented in primary schools where oral skills are also needed as one of the necessary skills in language learning. Yet, the Swazi younger and older children and young university adults who are in the process of becoming bilingual have challenges in academic English comprehension and processing. The Eswatini Education For All Review Report, 2000-2015 (Ministry of Education and Training, 2015) indicated several areas of low student performance. At the top of the list was academic difficulties in oral, written and comprehension in English. These difficulties lead to the failure of understanding questions which consequently result in poor performance across other subjects. In the Eswatini educational context, it is imperative to conduct a study to find out the processing demands in the narrative production skills of early sequential bilingual young and older children and young adults with relatively the same proficiency in both languages, by analysing oral and written linguistic behaviour during a narrative activity. An evaluation of narrative discourse production provides understanding into multiple linguistic levels in a single task, allowing the assessment of lexical diversity, grammatical skills, together with discourse structure and fluency (Méndez, Perry, Holt, Bian & Fafulas, 2018). In order to promote accelerated academic success amongst the sequential English-siSwati bilinguals, establishing the differences in their narrative skills could be the starting point in developing effective instructional strategies in both languages, and provide extensive possibilities to build children's speaking and writing skills.

1.6 Linguistic Sketch of English and siSwati Languages

SiSwati and English are two of the official languages of Eswatini. It is important to note the linguistic sketch of both languages and understand that this may impact reading and writing attainment and ultimately second language achievement. SiSwati belongs to the Niger-Congo family of languages (which include Zulu, Xhosa, Ndebele etc.) and is characterised by an agglutinative polymorphemic structure, where prefixes and suffixes are used to form words and also a complicated class of noun classification (Pretorius and Bosch, 2009). English belongs to the Indo-European, more precisely, West Germanic language family and has an irregular orthography. For example, the English letter 'a'; which, in different word contexts represents the vowel sounds in 'hat, bath' and 'plate' (De Sousa, 2016, p.58). Furthermore, many English words cannot be read using sound alone, for instance, words such as 'laugh' and yacht' (De Sousa, 2016, p.58). SiSwati,

on the other hand, has a transparent orthography that places emphasis on the syllable. SiSwati, like the Zulu language, is characterised by vowel harmony. Vowel harmony entails that some vowels are restricted from appearing with certain other vowels within a word (Suzman, 1996). Moreover, syntactically English requires an overt subject while siSwati allows for the sentence not to have a subject, sometimes called a subject drop (PRO-DROP) language (Kunene Nicolas, 2015, p 7). This means that siSwati does not need a clear mention of a subject later in the sentence once the referent was mentioned at an initial stage.

In view of the dissimilarities between these two languages, this could impact negatively on the learners' reading and writing achievement, which has serious implications for reading, speaking and writing instruction and academic attainment.

In Eswatini, English is, in essence, the medium of instruction from grade 1. It is important to give a graphic picture of Eswatini's education system at this juncture, in order to highlight the English language medium path in its entirety in the Swazi community. The Swazi education system is divided into four main levels: pre-school education; primary and junior secondary; senior secondary (high school) for general education; and, universities and colleges at tertiary level. Pre-school education is for children 5 years or younger. Although pre-primary education is not compulsory, the Ministry has created a wing that caters for this group of learners called Early Childhood Care and Development (ECCD). The curriculum at this level gives special attention to language competence in English and or siSwati, social and academic skills, intellectual and emotional development as well as physical development. The structure of the Education System followed in Eswatini is presented as a 7-3-2 formal education system (UNESCO-UNEVOC, 2012). This refers to primary, junior secondary and senior secondary respectively. The first seven grades (Grades 1-7) constitute primary school education which is divided into lower and senior primary levels. The focus of primary education is to equip learners with fundamental skills in literacy (reading and writing) and numeracy (UNESCO IBoE, 2010). In principle, primary school education is free and compulsory which entails the first seven years of primary school education while junior and high school education is paid for. Upon completion of the seven years of primary school, learners write a National Primary Examination and their proficiency in English language determines whether or not they may proceed to junior secondary. On completion of primary school, students proceed to junior secondary school for three years. The final two years of senior

secondary school (high school) is pre-university training and is called the Swaziland General Certificate of Education (SGCSE) or the International General Certificate of Education (IGCSE) in other schools (Ministry of Education). In Eswatini, a few selected schools offer the AS and A levels or the International Baccalaureate, which in turn adds one more year, making this phase three years to complete. In order to proceed through each of the stages in the education system of Eswatini, apart from pre-school, the pre-requisite is to pass the English language.

Tertiary education in Eswatini is made up of universities, technical and vocational colleges, teacher and nursing colleges and business colleges. The various tertiary institutions offer certificates, three-year diploma or four to five-year degree courses. Entry to university is subject to prospective students obtaining a C or better in English language, among other requirements. To enter the Teacher Training colleges, students must have a credit pass in the English language to enrol for an English major. These educational institutions are located in towns and cities around the country. The University of Eswatini is the only national university and the only one currently offering postgraduate level study. A number of students, especially those pursuing courses that are not readily available in Eswatini, are enrolled in the neighbouring countries and are still required to obtain a credit pass in the English language to gain entrance.

However, in spite of the reality that English is predominantly the language of instruction throughout the Swazi education system and above all a subject required for progression in the system, Swazi bilinguals still experience hardships with English. As a practising educator, I have often noted that students give indications of extensive difficulty in speaking and writing, even though these skills are formally assessed in the classroom and are vital components in the language curriculum. Numerous researchers advance that one likely source of these difficulties lies in the perception that written and oral language differs from the language learnt in early childhood (Hidi & Hildyard, 1983; Pu, 2006; Reilly & Polse, 2016; Sun, 2008). However, this is inconclusive since it is not known whether this stems from limited language proficiency in English or from language learning needs. In Eswatini, older children and young adults are expected to fulfil tasks that require them to define and explain events in writing and efficiently express their ideas orally during classroom activities. Educators, including speech-language pathologists, may have difficulty concluding whether their low learning attainment is linked to limited second language (L2) proficiency or to specific language learning needs. Without such an understanding, we are left with

an inadequate analysis that creates the condition for inaccurate information on siSwati-English bilinguals' evaluation of productive language and diagnosis of language impairment.

Therefore, this study intends to investigate the spoken and written productions in narrative discourse generated from English-siSwati speaking learners' oral and written narratives, elicited with a visual stimulus, with a primary emphasis on the examination of the structure of discourse production and their effect on the narrative genre. This study will look at junior primary students, secondary students and third-level university adults majoring in languages (siSwati, English). The main objectives are to characterise the structure of vicarious narratives (of which the content of the story is controlled by the researcher) produced by bilingual young and older children and young adult learners and illustrate the effects of how bilingual learners narrate stories in speech and writing.

1.7 Research Objectives

This study aimed to achieve three research objectives:

1. To characterise the structure of narratives produced by bilingual young and older children and young adult learners across modalities.
2. To investigate the effect of age on narratives produced by children and young adults.
3. To show the effect of language when English-siSwati bilinguals produce narratives.

1.8 Research Question

What affects the cognitive processes of sequential bilinguals when producing narratives?

1. What is the effect of age when children and young adults produce narratives?
2. What is the effect of language when English-siSwati bilinguals produce narratives?

Research Hypotheses:

1. There will be no effect of age when children and young adults produce narratives. (H_0)
   There will be an effect of age when children and young adults produce narratives. (H_1)

2. There will be no effect of language when English-siSwati bilinguals produce narratives (H_0)

   There will be an effect of language when English-siSwati bilinguals produce narratives. (H_1)

1.9 An overview of the Chapters

I have addressed my research goal over the course of five chapters:

There is an introductory chapter 1, which mainly familiarizes the reader with the research aims, objectives and research questions. There is also a very brief overview of the language policy of Swaziland which allows for English and siSwati as the languages of instruction. There is a brief linguistic sketch of the two languages under consideration, that is, English and siSwati. That the two languages are typologically different English is analytical while siSwati is agglutinate.

The second chapter, called literature review, contains an introduction, numerous topics critically reviewing literature and pivotal concepts that are central to the data analysis and a theoretical framework section discussing the analytical steps that are adopted from this framework and a summary. The third chapter presents the methodology. In particular, the chapter explains the research method and design, followed by a description of the participants and the principles underlying the sampling of the research population. This description is followed by an account of data collection procedure, instruments and tools. The description of the data analysis comprises a description of the narratives and an explanation of how the written text/speech are coded and annotated. The chapter further mentions how the identified relevant language structures in the data were analyzed at the discourse narrative level. The chapter concludes with remarks on the inter-rater reliability and validity, ethical considerations, and the statistical analysis used and a summary. Chapter four presents the results of the quantitative analysis that was conducted. The results concern the effect of age on oral and written English narrative production, the effect of age on siSwati oral and written narrative discourse production and finally, the effect of language on narrative discourse production. The chapter ends with a summary of the results.

In the final chapter, the discussion and conclusion summarizes the research findings. The chapter ends with the discussion on the contribution of the study, its limitations as well as future research directions.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

The challenges in academic English comprehension facing the young and older children, and young adults in Swazi schools and at tertiary level are of great concern. This investigation is imperative in order to understand what is standing in the way of the Swazi bilinguals to improve the quality of their academic performance across all subjects and also gain proficiency in the English language. Investigation into bilingual oral and written productions in narrative discourse is an increasingly important area in psycholinguistics. The past decade has seen the rapid growth of bilinguals throughout the world's population (Portes & Schauffler, 1994, p. 641). The number of people speaking more than one language in the world has grown tremendously over the past years. However, these changes are having a serious effect on bilingual learners' academic performance/progress. It is not known whether this is due to a language disorder or to poor linguistic skills in English or low L2 English proficiency. Studies on young and older bilinguals and adults, in both their languages, in two different modalities in a second language context, have not received sufficient attention. In order to investigate these challenges, it is important to review the existing literature in the context of this study to examine what was learnt within the scope of a particular theoretical framework. Hence this chapter reviews the literature on bilingualism, spoken and written discourse, literacy on language development, oral and written narrative skills in children, adolescents and young adults, narrative differences due to contextual support, cross-linguistic variation in narrative production, oral and written narratives of bilingual learners and bilingual cognitive load.

2.1.1 Bilingualism

The study of bilingualism as a broad subject and specifically the bilingual language development in children has increased over the last two decades, drawing the attention of many scholars from various disciplines. There has been heated debate over the definition of the term bilingualism and multilingualism among scholars. However, as a result of the number of studies conducted on multilingual understanding or attainment to date, particularly in the field of psycholinguistics, the degree of importance of such differences in bilingualism is vague. For the purposes of the literature review on bilingualism, this study will utilise a broad meaning of

bilinguals that comprise of people with proficiency in two languages at varying levels and places of use, such as individuals who in their daily existence may want to speak or write in two or even a multiple of languages (Grosjean, 2010). This definition fits well in my study because the students that I have studied speak and write in two languages and have different abilities in the two languages.

Butler (2013) defines a bilingual or multilingual as an individual who has acquired the ability to use more than one language, hence use the term bilingual as a blanket definition involving multilingual as a single variant (Aronin & Hufeisen, 2009, p.17). Therefore the term bilingualism will include both the individuals who are proficient in two languages only, as well as those who are fluent in three or more languages (Kamwangamalu, 2013). Bilingualism and multilingualism occupy real and important places in the psychological, political and social arguments that describe social and ethnic groups, communities, and regions (Edwards, 2013, p. 8). It is in the same vein that Wei (2013, p. 52) advanced that bilingualism and multilingualism both refer to "the co-occurrence, contact, and interaction of different languages". From this point on in the literature review, the terms bilingualism and multilingualism are used interchangeably.

Defining bilingualism and multilingualism is not an easy task since it involves assessing how proficient the multi-language user's ability is, to use language beyond one language in varying levels of competence in both speaking and writing modes, in communication with other language users equipped with multiple languages in a particular circle (Butler, 2013). Furthermore, Butler (2013) postulates a number of terms that describe different types of bilinguals. For instance, Butler (2013) says there is the dimension which includes the relationship between two language competences, such as the balanced and dominant bilinguals. There is also the dimension that takes account of the functional ability like the receptive and reproductive bilinguals. Butler (2013) also discusses the dimension that involves the acquisition age which comprises those who acquire two or more languages at the same time, those who acquire two or more languages one following the other from after three years and those who acquire two or more languages after adolescence. Lastly, Butler (2013) asserts that there is the dimension that includes status that the language is accorded in the environments of learning. However, Butler (2013) says that there is a limitless number of these dimensions in other quarters. On the same subject, Nguyen (2013, p. 1) asserts that researchers agree that bilingualism is "a variable that is more continuous than clear-cut"; hence

there are no established standards for assessing people based on an objective bilingualism scale. Instead, bilinguals/multilinguals differ on a number of attributes which includes the number of languages spoken, their competence in every language they use, the period when the other language was acquired and also the settings in which each of the languages is used.

The bilingual population is on the increase, a compelling factor in investigating and understanding the processes and pathways of bilingual language acquisition in children. Moreover, bilingualism research is essential not only for its useful implications but also because contrary to monolinguals, bilinguals reveal diverse cognitive processes (De Groot, 2011) that are worthy of study since bilingualism is widespread throughout the world's population. Goldstein and Fabiano (2007) advance that there were nearly 5.2 million bilingual children enrolled in schools in the United States, which has grown tremendously by a 61% increase from 1994. Blumenfeld and Marian (2009) predicted that in the United States, 40% of school-age children will be native speakers of another language and will be acquiring English as a second language by the year 2030.

In the central Asian region, state languages were used, and Russian was the language of education and public life. At the end of the Soviet Union era, the developing central Asian countries had challenges with regards to the use of new languages that were used internationally for interaction. English as a world language extended its position into the former central Asian republics after the first two decades of independence (Schlyter, 2013). Thus, with bilingualism/multilingualism on the rise in the central Asian states, the influence of bilingual experience on cognitive function becomes increasingly relevant.

In Africa, multilingualism is the norm or prevalent and many different varieties of native languages of indigenous ethnic groups or nations coexist with one or more languages of wider communication (Wei 2013). One case of state-profile multilingualism in Africa is Nigeria where there are around 105 million people speaking about 410 languages, with 60% speaking two languages, 30% speaking three and 10% speaking over four languages. Handling the tradition of multilingualism can be observed in most African countries (Wolff, 2000). Therefore, many states in Africa that are highly heterogeneous and multilingual would adopt two official languages, commonly a powerful native one and a common western language (Edwards, 2013). In the southern part of Africa, there are ten countries, including Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Eswatini, Zambia and Zimbabwe. These countries are

predominantly multilingual states and former colonies of Germany, Britain and Portugal. Eswatini is a former British colony and after independence, English became a co-official language with siSwati, rendering Eswatini a bilingual state. SiSwati, the native language is mostly used in the household domain and for communication with the community people. SiSwati is in principle the language of teaching and learning in first phase starting from grade one to grade four. During these early years, English is taught as a subject before becoming the medium of instruction from the fifth grade throughout the educational system in the country.

De Bruin (2019, p.1) in her call for a thorough description and assessment of the experiences of the bilinguals argues that "bilinguals can differ from each other in many different ways, including their age of acquisition, language proficiency, use, and switching practices in daily life". De Bruin (2019) further elucidate that "two early bilinguals with a native-like proficiency in both languages can still differ tremendously in how they actually use their languages. Moreover, language-related differences between bilinguals may also be associated with their performance on cognitive processes (executive control) tasks" (p. 1). As a result, it is difficult to precisely define what a true bilingual is considering the many ways in which bilingualism manifests itself.

However, the age of exposure distinguishes between simultaneous bilingualism (and bilingual acquisition) and sequential bilingualism (or second language acquisition). Simultaneous bilingualism is when two languages are learned from infancy and sequential bilingualism is when a second language is acquired after the first one is established. This occurs after the age of three years (Carroll, 2008, p. 72-74). Luk, De Sa and Bialystok (2011) "categorized early bilinguals (seven years or younger) as those who had started to use two languages actively before the age of 10 and these early bilinguals showed a smaller flanker cost (i.e., smaller inhibition cost) than monolinguals. The late bilinguals (13 years or older), in contrast, showed comparable flanker costs to the monolinguals and it showed that late bilinguals too can show benefits on executive control tasks" (p. 2). In addition, to the description by Luk and colleagues, De Bruin (2019) says that early bilingualism is effortless while acquiring a new language later in life (late bilingualism) is more harder. Moreover, De Bruin (2019) goes on to distinguish age with proficiency. She states that early bilinguals have a tendency to have a higher proficiency in the second or even third language while late bilinguals might not. Some studies found that there are early bilinguals who have both

high and low proficiency levels with a similar age of acquisition. The high and low proficiency abilities was also observed in the late bilinguals with similar age of acquisition.

In the same note on the diverse nature of bilingualism, Leivada, Westergaard, Duñabeitia and Rothman (2020) give a summary of the complex features of being bilingual and further suggest that this bilingualism phenomenon keeps changing throughout the human lifespan therefore there was a need to thoroughly characterize it in order to use it properly. Leivada et al., (2020, p. 6) assert that "there are many ways of being bilingual. Age of onset determines whether one's exposure to the two languages is simultaneous, i.e., two languages from birth (or a very young age), or sequential, with exposure to a second language (L2) taking place after significant exposure to the L1 (roughly after 3–4 years of age). Degree of usage facilitates a distinction between passive bilingualism, which describes the ability to comprehend, but not (easily) produce, output in one of the two languages, and active bilingualism, which entails productive performance abilities and engagement in both languages on a rather wide continuum. Linguistic proficiency also contributes a distinguishing characteristic: a person might be an active bilingual, but with balanced or unbalanced performance ability in the two languages."

Additionally, the context of language acquisition is also of paramount importance in the prpoer description of bilingualism. Bilinguals' linguistic experiences would impact the processing of language (Beatty-Martínez & Dussias 2017) together with the context of language use (Surrain & Luk, 2017). "Differences between bilinguals also exist in terms of how they acquired their second language (e.g., in a classroom through formal instruction or through immersion) as well as with respect to the language that is used at school" (De Bruin 2019, p. 3; Beatty-Martínez et al., 2019; Barac, & Bialystok, 2012). The scenario in Eswatini is that, a majority of children from Swazi homes speak English when they begin formal school while the educational situation in Swazi schools involves teaching academic content in two languages, siSwati L1 and English L2, with both languages used simultaneously. It is noteworthy that the Swazi bilinguals use siSwati and English simultaneously in the first four grades of primary school above and beyond the other years spent at preschool conversing in English too. This is the situation for the majority of Swazi learners and for the purposes of this study, the Swazi learners will be termed sequential bilinguals in order to cover the numerous situations in which both the languages are put to use.

This kind of childhood bilingualism presents a unique kind of language acquisition making it a challenging area to research because of the diverse ways in which children can acquire two languages. This situation has implications for the connection between linguistic and cognitive processes (Blumenfeld & Marian, 2009). In fact, these factors are important in determining the effects of bilingualism on cognitive and academic language development (De Sousa, 2016). Blumenfeld and Marian (2009) further posit that bilingual children have a significantly greater cognitive processing load when compared to monolingual children when learning and using the language, especially those involving the processing of complex stimuli which ultimately leads to linguistic and cognitive differences amongst them (Potter, Fourakis, Morin-Lessard, Byers-Heinlein & Lew-Williams, 2019). However, there have been mixed findings in studies conducted on the course and rate of monolingual and bilingual language development. Some studies have found similar levels in the course and rate of language development and others have found that the bilingual children trailed behind the monolingual children in a number of attributes in language (Carroll, 2008). Numerous studies found that bilingual children's language progress and processes of language acquisition were similar to those of monolingual language acquisition (Dale, Bates, Reznick & Morisset, 1989; De Houwer, 1995; Pearson & Fernandez, 1994; Petitto et al., 2001). On the other hand, various other studies found that bilingual children lagged behind monolingual children in terms of syntactic and grammatical gender measures (Gathercole, 2002; Gathercole, Oller & Eilers, 2002; Hoff, 2001). Hoff (2001, p. 66) neatly sums up this controversy by that "it is undoubtedly possible for children to learn two languages nearly at the same time, but that it is not without its own challenges for children to acquire two languages as it is to acquire a single language".

Still on the subject of bilingual cognitive processes, Olguin, Cekic, Bekinschtein, Katsos & Bozic (2019) further postulate that "humans are capable of learning multiple languages without major difficulty, especially at an early age and this brings obvious advantages such as intercultural communication and enhanced career prospects" (p. 1) for the bilingual. On the same note, other researchers (Bialystok, Craik, Klein, & Viswanathan, 2004; Kramer & Mota, 2015) have indicated that the influence for the ability for selective attention and inhibition of unwanted information can be attributed to bilingualism. Moreno, Bialystok, Wodniecka and Alain (2010) postulated that bilingual or multilingual adults were at an advantage over monolingual adults in a linguistic judgement task that required selective attention or executive control. They argued that bilingual

experience has an effect on brain processing of sentence-level linguistic stimuli which the monolinguals lacked. Their research, therefore, suggested that bilinguals and multilinguals benefitted slightly in academic, meta-linguistic and intellectual spheres. Bialystok, Craik and Freedman (2007) investigated bilingualism across the lifespan. Their study brought about new findings that bilinguals performed better than monolinguals in early childhood, adulthood and late adulthood and further may be said to even delay the onset of the symptoms of Alzheimer's disease. In the same study, Bialystok and his colleagues found that bilingualism helped boost the human brain and enabled it to process information more efficiently. They found that bilingualism improved metacognition, promoted thinking and creative problem-solving skills, and was also associated with a lower incidence of dementia in the elderly (Bialystok et al., 2007). In the more recent studies (Bialystok, 2017; Moreno et al., (2010); Baum & Titone, 2014) there was further assertion on their findings on the bilingual advantage from children to adults.

However, some of the above postulated bilingual advantages have been rebutted by recent research (Lehtonen, Soveri, Laine, Järvenpää, de Bruin & Antfolk, 2018; Paap & Greenberg, 2013) findings that there is increased executive control (cognitive processes) in bilinguals. In a study conducted by Lehtonen et al., (2018) "comparing bilinguals' and monolinguals' performance in six executive domains using 891 effect sizes from 152 studies on adults is of particular interest. In the study we included unpublished data and considered the potential influence of a number of study, task, and participant-related variables. Before correcting estimates for observed publication bias, our analyses revealed a very small bilingual advantage for inhibition, shifting, and working memory, but not for monitoring or attention. No evidence for a bilingual advantage remained after correcting for bias. For verbal fluency, our analyses indicated a small bilingual disadvantage, possibly reflecting less exposure for each individual language when using two languages in a balanced manner. Moreover, moderator analyses did not support theoretical presuppositions concerning the bilingual advantage. We conclude that the available evidence does not provide systematic support for the widely held notion that bilingualism is associated with benefits in cognitive control functions in adults" (p. 394). These results are of great interest because a lot of popular studies had supported the notion of a bilingual advantage and this new conclusion has triggered a lot of scholarly investigations in different quarters. De Bruin (2019) points out that the "inconsistent findings across studies and tasks may partly be related to the broadness of 'executive functioning', an umbrella term that encompasses different cognitive processes. In addition, task

impurity is likely to play a large role. Tasks do not just measure one specific component (e.g., switching) but also have their own task-specific features that affect how participants perform" (p.1).Therefore, it would be difficult to refute findings by previous studies because the concepts being investigated are too broad to measure using perhaps just one task.

On the subject of new findings nullifying a bilingual advantage of executive control in bilinguals, it is important to tread carefully on this dangerous terrain. Researcher should avoid calling into question some findings but instead look at the controversial findings as an attempt to get to the root cause of the different findings. These different findings in the subject of bilingualism could be answered by the statement that Leivada and colleagues suggested. Leivada and colleagues state that "it is virtually impossible that different scholars from unique research centers and parts of the world have employed the exact same inclusion criteria for their so-called monolingual and bilingual populations, administered the same background and language proficiency checks to determine 'monolingual' and/or 'bilingual status', and trimmed the data on the demographic front in an identical or otherwise comparable way" (Leivada et al., 2020, p. 7). Therefore, they urge the researchers to be cautious of such differences and that bilingual research undertakings may yield differing results from different use of tasks and participants.

As two or more languages are acquired simultaneously, they have a tendency to interfere with each other which may result in mixed utterances of both languages by some bilingual children. There have been debates on whether the mixing of two or more languages was interference or a systematic way of handling more than one language. Studies by Genesee (1989) and Reich (1986) have provided evidence to the interference in the input of bilingual children if the caregivers use mixed utterances and do not stick to one language at a time. On the contrary Petitto et al., (2001) found that in their data of bilinguals' spoken sign-language there was very little mixing or interference, as pointed out by findings of studies conducted in bilingualism. They concluded that exposure to two or more languages did not lead to interference but rather it was meticulous. For instance, when children did not have the suitable lexical item in one language, they would systematically borrow it from their other language (Morini & Newman 2019) which would ultimately not impede communication.

Studies in multilingualism or bilingualism have brought about new and important findings that have contributed immensely in the area of cognition and language development. However,

inquiries arise about the link between bilingual development and academic achievement, whether there are advantages to learning to read and write in more than one language. Research is needed into the part played by bilingualism on learners' levels of cognitive and academic development using a cross-linguistic and cross-cultural research design to answer such pertinent questions. Research on how cross-linguistic input impacts cognitive capacities is growing and conducting such a study can bring out important findings on the linguistic and cognitive processes of Swazi bilinguals. These findings can help in coming up with ways in which the poor performance in academic English comprehension and production can be enhanced and there bygive support for the teaching and maintenance of more than one language in the Swazi education system.

2.1.2 Spoken and Written Discourse

In studying the production in narrative discourse of bilinguals, it is necessary to consider modality in order to have complete understating of the development of language. Discourse modality describes the forms in which information is conveyed and received and most of the time denotes written language and oral language (Westby, 1991). "Even though written language may be thought of as a graphic representation of the language that was learnt prior in spoken form, there are vital differences between the expressive modalities as they change across the school-age years when children acquire linguistic literacy" (Reilly & Polse, 2016). Writing and speech are both modalities of language communication that share certain features as well as differences. Furthermore, Westby (1991, p.340) state that "narrative discourse creates a connection between oral (contextualized) and written (decontextualized) language". "The mutual connection between spoken and written language does not guarantee that people will demonstrate similar abilities when it comes to communicating in these modalities" (Christensen, 2000, p. 314). "There has been a correlation between spoken narrative abilities and written narrative abilities, reading comprehension" (Fey, Catts, Proctor-Williams, Tomblin, & Zhang, 2004, p. 1309), "academic outcomes" (Boudreau, 2008; O'Neill, 2014) "and reading fluency" (Reese, Suggate, Long, & Schaughency, 2010). However, "the differences in the two modalities emanate from poor allocation of resources between writing and generating a story". McCutchen, (1996) and Spencer and Petersen (2018, p. 570) state that "difficulty with transcription (handwriting and spelling) could lead to interference with the development of text generation, especially when the transcription process demands considerable working memory resources from a limited capacity

system. When resources that need to be allocated to high-level composition skills are disproportionately allocated to transcription, text generation suffers".

Furthermore, there is a narrative schema that connects both the oral and written narrative which is derived from schema theory related to narrative structure (Anderson, 1984; Mandler, 1984). The Schema theory suggests that there is an organized structure of how people view things in the world. It is believed things are organized according to broad internal representations or mental models (schemata) that enable conception of things around (Anderson, 1984; Mandler, 1984). This schemata are guiding rules that help influence how things should be done and when a narrative follows the prescribed pattern, with the story grammar elements decided upon (e.g., Stein & Glenn, 1979), comprehension and production in either written or oral form are expedited (Rumelhart, 1980). It is therefore expected that the schema will enhance the scaffolding of written and oral narration. Moreover, "story grammar, oral and written narratives share a number of complex literate language features such as causal and temporal subordination, use of mental–linguistic verbs, dialogue, and elaborated noun phrases" (Greenhalgh & Strong, 2001, p.117; Westby, 1984; Westby, 1985, p. 190). According to Spencer and Petersen (2018, p. 571) "the concurrent and predictive relationships between oral language and writing quality suggest that scaffolded input through oral language could cause improved output in writing, despite transmission through a different modality. Furthermore, based on schema theory, it is hypothesized that improvement in oral narrative language would result in improvements in written narrative language because story grammar serves to organize one's thoughts and thereby enhance the expression of those thoughts".

For the purposes of getting a clearer picture of the oral and written narrative discourse it is important to review studies that have investigated these two modalities. Hidi and Hildyard (1983) postulate that written language is not merely spoken language accessible in written form, rather it is practically distinct from spoken language in its make-up. Biber (1986) advances that these two kinds of discourse differ in numerous ways; in their medium, the types of language produced, the various uses that people put these types of communication to, as well as the effects that the spoken and written language have on the users. Similarly, Pu (2006) advances that these two types of language function in discrete purposes and diverse contexts in a discourse community.

However, when comparing oral and written texts of the same genre, common differences show up. Several scholars have suggested that one of the most common differences that has been observed between spoken and written language is that the former is more personalised and interactive, and tends to be direct whereby one speaks in their own voice directly to another speaker/listener, accompanied by intonation forms that unite parts into larger units (Dooley & Levinsohn, 2001). Pauses also help to signal boundaries between units (Sun, 2008). Furthermore, spoken language is highly contextualised characterised with prosodic cues, deixis and paralinguistic devices, and rapidly processed and unplanned with less word variation (Bar-Ilan & Berman, 2007; Christensen, 2000; Dooley & Levinsohn, 2001; Sun, 2008). Reilly and Polse (2016) state that spoken language develops in real-time thereby reflecting current thoughts and ideas of the speaker. Additionally, Hidi and Hildyard (1983) have posited that the oral language of ordinary conversation is considerably different in both its structure and function from the written language of text. Pu (2006), on the other hand, suggested that written language depends on punctuation and description to convey prosodic cues, deixis and paralinguistic effects. Furthermore, written language is considered to be formal, planned, expository-like and explicit with careful word choice, because it has complete idea units with all assumptions and coherent relations coded in the text. Moreover, numerous researchers conceived that written language is detached and decontextualized so that it is less reliant on a common situation or background knowledge and has a complex syntactic structure (Christensen, 2000; Sun & Yang, 2011; Tannen, 1982).

Furthermore, in written language, the context is lexicalised, and referents explicitly stated. It should be noted that spoken language, such as a conversation, places a cognitive load on memory and may necessitate different tactics to make the information easy to remember by the speaker (Hidi & Hildyard, 1983). Conversely, written language does not need specific prompt strategies since the written word could be looked over as many times as necessary. Moreover, written discourse is “denser in terms of information compactness, complex, abstract, concise and better organised”, and introduces new information “at a faster pace” (Chafe & Tannen, 1987, p. 268). Spoken texts are longer and include more repetitions and stuttering (Berman, 2016). A typical form of repetition commonly found in oral material is “tail-head linkage which consists of the repetition in a subordinate clause, at the beginning (the ‘head’) of a new sentence, of at least the main verb of the previous sentence (the ‘tail’)” (Thompson, Longacre & Hwang, 1985, p. 209). This can be

shown in the example “he arrived at the house. When he arrived at the house, he saw a snake” (Thompson, Longacre & Hwang, 1985, p. 209)

Speech and writing are modes of communication that work together in the process of language development. It is therefore important for writing and speaking to work together because “improving students’ use of oral story grammar enhanced their use of written story grammar. This is evidence that the alignment between oral narrative structure and written narrative structure is not only relational but also causal. Cognitive schema can be expressed in oral form, oral narrative can facilitate more advanced, organized thinking, which facilitates narrative writing. This cognitive schema that spans oral and written narratives leads to improved comprehension and production of narration. Furthermore, even though handwriting is necessary to be able to make the transition from oral to written language, it is possible that students who have received story grammar instruction may make that transition much easier than students without such preparation” (Spencer and Petersen 2018, p. 577).

Variables that are commonly used in comparing the spoken and written language are the structure of syntax which entails (clauses, phrases and sentences), the use of semantics (lexical diversity and density), cohesion (organisation), the number of words, and the words that are used to connect other words (Scott, 1988). Berman (2016) advances that both modalities reveal a U-shaped developmental curve such that 4th and 7th grade written texts still appear like spoken language. In the same way, Kroll (1981) advanced that there are four phases that describe the process that is involved in the development of speaking and writing. The young children have better spoken abilities than the written skills. It is within this phase of preparing to master the two skills (written and oral language) that young children use the spoken language even in their writing. Noteworthy is that the children's spoken language is always ahead of their writing proficiency when they start writing, as a result they write as if they were talking, because they even talk while they are writing (Spencer and Petersen (2018). Furthermore, younger children have the habit of focusing more on how words are spelt and formed instead of how the words are put together and their structures. Noteworthy, at high school there is an increase in the separation between the two modes of expression. Eventually, literate adults reveal clear effects of the two modes of expression, resulting in their spoken language showing the effects of being familiar with written discourse (Berman, 2016). However, the young children’s written language lacks complexity when

compared to their spoken language, but their written language develops in complexity when they are adolescents attending higher grades. (Scott & Windsor, 2000). It is from being involved in school that the children begin to differentiate between the writing and speaking modes as a result their written works (e.g. compositions) begins to assume the correct written form which is not the same as spoken language. Most importantly, when the children become older and become adults they become aware that written and oral language is used in a mature way for different situations, different reasons and for a particular audience. (Sun, 2008).

A review of the literature on the structural differences between written and spoken language is worth discussing in this piece of work, to reveal these subtle differences. In an investigation by Harrell (1957), of 9, 11, 13 and 15-year-olds who were asked to write and talk about what they had watched in a film. He discovered that there was a higher frequency of the use of subordinate clauses in the written language. There were more adjectival and adverbial clauses in written language while there were more nominal clauses in spoken language (Harrell, 1957). O'Donnell, Griffin, and Norris (1967) conducted a study on children in grades 3, 5 and 7 who were asked to watch two films and then write and speak about what they had seen in the films. The researchers analysed the results in terms of T-units and transformation and concluded that the writing of 5th and 7th grade students had more sentence-combining transformations compared to the writing of the 3rd graders (O'Donnell et al., 1967). Beaman (1984), in a study of coordination and subordination on written and spoken language accounts of a film, found that spoken language had more complex sentence structures with low lexical density (more clauses but fewer high content words per clause) while written language had simple sentence structures with high lexical density (high content words per clause but fewer clauses). However, she argued that the syntactic complexity was as a result of the differences in formality and purpose or register of the discourse (Beaman, 1984). De Beaugrande (1984), on the other hand, studied spoken and written samples of a silent Chaplin film. He found numerous typical spoken language features such as fillers, hedges, restarts, and repetitions that might carry over into students' writing (De Beaugrande, 1984).

On the other hand, Drieman (1962) conducted a study in which people had to write and talk about pictures. The results were that the written texts were shorter, had longer words, were more attributive and had a more varied vocabulary. O'Donnell (1974) published a study of the spoken and written language of a single individual identified as an "author, lecturer, television host

and editor" (O'Donnell 1974, p.5). He concluded that the written sample had "plenty of gerunds, participles, attributive adjectives, passives, modals and perfective auxiliaries while the spoken sample had more noun clauses, infinitives and progressive auxiliaries" (O'Donnell 1974, p.5). In another study conducted by Poole and Field (1976) on Australian students from both middle-class and working-class backgrounds. The students were interviewed on their school experiences and also requested to write on their predictions of their lives in the future after they left school. The findings in the analysis of their written samples were that there were more complex verb structures and adjectives, while the spoken language was complex in terms of embedding and had more personal pronouns and adverbs.

Another study by Hildyard and Hidi (1985), investigated the production and recall of spoken and written narratives of students from grades 3, 5 and 6. They found that the written narratives of the 6th graders were better structured than the oral protocols. There was an insignificant difference in modality with the younger children but the older children took advantage of the unique features of writing.

McCutchen (1987) found that oral narratives were lengthier and detailed compared to narratives in writing however, the written narratives were comprehensible and clear than speech. Furthermore, the written texts revealed clear connections in conjunctives and subordinate clauses when compared to the oral texts. Hidi and Hildyard (1983) found similar results in their study of oral and written texts. They found that in both the narrative and expository genres the oral narratives were more elaborate compared to the narratives produced in writing. However, the written narratives were more comprehensible and organised that the oral narratives in both genres. All in all, there was clearly an age-related development in written and spoken narrative production in terms of the quality and number of narrative discourse production.

Research on spoken and written language was extended to compare productions by children developing normally compared to those difficulties in language learning. Gillam and Johnston (1992) investigated spoken and written texts of children with language and learning difficulties together with those of typically developing children. Their results indicated that the oral texts were lengthier even though they were not dense and compact than their narratives in writing. Moreover, there were more instances of ungrammatical language with the atypical

children in their written narratives, but they had similar connections between oral and writing just like the typically developing children.

Scott and Windsor (2000) compared children of school-going age with language learning disabilities (LLD), with chronological-age (CA) and language-age (LA) peers in different modalities and genres. Productivity, grammatical complexity, fluency, lexical diversity and accuracy were used as language performance measures. The findings indicated that in the two types of genres the oral narratives were extensive and to produce them was quicker compared to the texts in writing. Moreover, all three groups of children produced ungrammatical mistakes in the written narratives when compared to oral narratives. The LA and LLD children had difficulty producing the narratives in writing. In addition, the two groups (LA and LLD) could not produce more complex grammatical structures.

In another study conducted by Kormos and Trebits (2012) on written and spoken narratives the findings show "that in writing students were more accurate and used more varied vocabulary. However, there was no significant increase in accuracy in writing in the cartoon description task. Their findings are partially similar to that of Granfeldt (2008), who also concluded that mode influenced the lexical variety of output in his study; and also similar to the study conducted by Kuiken and Vedder (2009) in that writing students were more precise and used a wide range of vocabulary. However, some parallels between Kuiken and Vedder's (2009) and Kormos and Trebits (2012) research might be drawn in the examination of the two studies. Kuiken and Vedder (2009) administered a task in which students had to justify their choices for a particular holiday destination. This task is similar to the story narration task used in Kormos and Trebits (2012) study, in that it is also high in conceptualization demands. Therefore, it might be possible that in tasks which require increased attention in terms of conceptualization, L2 learners do not seem to produce more accurate language in writing than in speech because their attentional resources are devoted to content planning rather than to encoding and monitoring linguistic form. The cyclical nature of writing, which theoretically would allow for a closer monitoring of accuracy than the on-line characteristics of speaking, might only increase accuracy in tasks such as the cartoon description task, which does not involve high conceptualizing demands and high linguistic encoding of specified content" (p. 458). It should be noted however, that comparative studies on this topic are challenging and not easy because of the different levels of proficiency amongst the participants of

the numerous studies conducted as well as the varied tasks that the participants are engaged with during the investigations. Kormos and Trebits (2012, p. 461) further explain the reason behind the varied lexicon in the written narratives of their study, that "it could be due to the fact that writing is done under no pressure of on-line production like in the spoken narratives. They claim that writing could give the participants an advantage of reaching out for their cognitive lexicon and thereby avoid repeating words or this could be due to the fact that students might have been encouraged by their second language teachers to use varied vocabulary when writing". The results in Kormos and Trebits (2012) investigation indicate that there are clearly different effects on the task type in writing and speaking. Writing is more relaxed as lexical and syntactic mental decisions are not done at the same time but done one at a time. While on the other hand, speaking is subjected to the pressure of time while making linguistic structures and also conceptualizing the narrative production.

Chafe and Tannen (1987) state that it is acceptable that different conditions of production, as well as different projected uses, encourage the creation of different kinds of languages. Writing and oral language are both fundamental in improvement of language acquisition, interaction and education. However, the features drawn above about speech and writing are generalisations that do not cover adequately and clearly this phenomenon because most of them emanate from typical writing and speech instead of all spoken and written genres. Research in the narrative genre has mainly investigated either the spoken or written language of monolinguals especially in the developed countries (Spanish, French and English), hence it is vital to conduct research on the comparison of spoken and written discourse of bilinguals in a developing world context, such as in the case of Eswatini.

It is important to study this discourse from a bilingual perspective to compare productive language at all levels of performance and assess how far they relate to each other in the discourse productions of Swazi bilinguals with the view of reaching satisfactory conclusions about the two modalities. However, it is important to compare written and oral texts of the same genre as Bartsch suggests, because "different genres have different features, and it is not helpful to compare oranges to apples" (1997, p. 45).

2.1.3 Effects of Literacy on Language Development

Stubbs (1983) states that an understanding of the relations between written and spoken language is often rooted in research on literacy. The acquisition of literacy is a lengthy and complicated process that children start long before school (Buisán, Rios & Tolchinsky, 2011). Children acquire literacy while they are still at home under their care-givers through being told stories. From being told stories at home the children's listening and speaking skills are sharpened since they are also expected to tell re-tell these stories that have been told by care-givers. Therefore, by the time the children go to school they already have two major skills that have laid a foundation for the reading and writing skills that are acquired predominantly from formal settings such as school. This form of literacy is possible for the African children because the African culture is rich with oral tradition. In Africa as a whole, and eSwatini in particular have a rich long culture of oral tradition (Kunene Nicolas, 2017) which was passed to the children through storytelling even before they attended formal school. The development of reading and writing in Africa is a new phenomenon, and before this revolution the African people preserved their culture and history through storytelling (Chavunduka, 1997; Vambe, 2001). Before the advent of colonisation, the African people did not attend formal education (where one is taught how to read and write) but the African people were knowledgeable in many perspectives. They placed great wealth in the spoken tradition because it did not only convey their culture, entertainment and emotional states but also helped to 'develop speaking and listening skills and to learn the beliefs, values, and acceptable social behaviour of their communities' (Bukenya, Gachanja, & Nandwa, 1996:9). Bukenya et al., (1996) point out that the value of oral tradition was in fact being literate in the African way of life. Similarly, Mushi (2009, p.34) says that the African oral tradition was 'the basis of lifelong learning' in the African society. Avoseh (2013) emphasizes what most scholars have argued on the oral nature of the African culture. Avoseh (2013, p. 247) says that "the reflection or intellectual aspect of indigenous education depends solely on Orature. The oral nature of the process makes the ability to weave words into deep patterns and to decode such patterns a necessary condition for criticality in the traditional lifelong learning process".

Still on the subject of oral tradition in Africa, Edosomwan and Peterson (2016) and Nduka, (2014) have similar notions about oral tradition. They argue that the oral tradition was preserved through telling stories. They postulate that "storytelling is one of the oldest methods of interaction and

communication in human history. Before the advent of the written word, historical events were transmitted to future generations through the use of compelling stories. A significant approach of human capacity was the ability to preserve its historical heritage using narratives. Every society has a historical and cultural heritage which is valuable to its people and transmitting history and cultural heritage through the oral tradition of storytelling is a common phenomenon of human practice. This shared way of knowledge not only details life's events but also preserves the history of people and societies from one generation to another" (Edosomwan & Peterson 2016, p. 91; Nduka, 2014). In the same vein Mbiti (1966) noted his observations on the oral tradition and state that "stories are to a certain extent the mirror of life; they reflect what the people do, what they think, how they live and have lived, their values, their joys and their sorrows. The stories are also a means of articulating man's response to his environment" (p. 31).

Verbina and Damodaran (2013) further argue that storytelling was common throughout the world in a lot of cultures before written language was invented. Verbina and Damodaran (2013) state that "storytelling is universal and is popular in many cultures where it became the medium the people used to preserve their beliefs, social values, wisdom, and cultural experiences as well as to transfer them from one generation to another. Through history, adult educators like Plato and Jesus of Nazareth have used stories to connect, demonstrate, illustrate and communicate with learners. This was true also in pre-literate Nigeria societies, where storytelling was used as a medium to educate, preserve oral history, and convey cultural norms to the indigenous people. Parents would use storytelling as a means by which they educated and imparted knowledge for their children" (p. 3). Furthermore, storytelling was done in formal and informal places and storytelling involved the talent of telling stories recalling from memory of events spanning from (generations past) a very long time and such people were considered oral artists or court historians. Storytelling was in the home front a past time that farmers would engage in when coming back home from working in the fields all day and would still have the leisure time to tell stories. (Ajuwon, 1985). Similar to what Verbina and Damodaran (2013) observed about storytelling in Nigeria, Oduolowu and Oluwakemi (2014, p. 102) state that "in the traditional African environment, specifically Nigeria, young children were told stories in the form of oral narratives by parents, grandparents, uncles and aunts. This way, the younger offspring were able to learn how to obey instructions from their elders by practicing listening skills and learning about their heritage. For adult listeners, stories were used to depict the wisdom, knowledge, and power of elders".

From the oral tradition of storytelling it can be noted that these stories contained proverbs and folktales which were very important and formed an integral part of storytelling. According to Monaka, Moumakwa & Baitse, (2019) “folktales are a type of folk literary genre. They are old and enduring culture-saturated stories which have been passed down from generation to generation by word; and serve as conveyors of these traditions, customs and values of people to future generations. They are typically narrative in form, with songs frequently interspersed in the narrative. Although they are conventionally relayed in a recreational setting, like other folklore genres, folktales have a fascinating combination of both aesthetic pleasure and education. Their richness in cultural content and social importance make them important in the education of younger generations and was conducted through oral literary genres such as folktales. Furthermore, folktales are classified as a type of folklore. Although variations exist in the definition of folklore, it typically is considered as the knowledge of a (homogeneous) group of people accumulated over millennia and passed through generations by word of mouth.” (, p. 115). Similarly, “folktales have the distinguishing feature in the narrative and can include a combination of music, voice, drama, and dancing and it is an integral part of the oral society and played a significant role in the community life of Nigerians” (Tuwe, 2016, p. 5). Furthermore, on the folktale subject, Amali (2014), says the “Idoma people of Benue State that occupy part of the western areas of Nigeria, used folktales to demonstrate to people what the society expects of them such as acceptable behaviors. Folktales were also used to educate young children. Through this process, both the young and adults alike were able to learn the messages conveyed by the narratives of folktale stories. In other words, the values of the society were portrayed through folktales” (p. 93).

Proverbs on the other hand, were also important aspects of storytelling. According to Avoseh (2013, p. 240) “the stories sometimes included proverbs, sayings that express a belief or piece of advice which are short, unforgettable. These words are words of ‘experts’ from a continuum that stretches from the ancestors to elders in the community. In fact, ancestors were considered to have intellectual ownership of proverbs. Proverbs can be used for numerous purposes such as reproach, for counseling and encouragement or to warn of approaching danger”. On the same note, Sone (2009, p. 162) says that “oral literary forms such as stories, songs and proverbs are metaphors to guide moral choice and self-examination. They are mirrors for seeing things in a particular way. They serve as pedagogic devices and are a significant tool for teaching

values that guide children's concrete behavior in society." Similarly, proverbs are an important storytelling component of the folklore genre. "The folklore genre is the product of the collaboration of countless people over generations and form a basic part of a people's oral culture that defines and binds them together. Because folklore genres are performed routinely by different people and at various times, slight variations from the originals often develop over time" (Monaka, Moumakwa & Baitse, 2019, p.116).

Similarly, in Eswatini where the study was conducted had also practiced the oral tradition like other African countries discussed. Sone (2011) states that, before Eswatini was colonized by the British there was no written literature but Eswatini's literature existed in the form of oral literature. Oral tradition is a term that is interchangeably used with 'oral tradition', 'folklore' (Sone, 2018, p. 4). Sone (2011) assert that "the literature that existed was oral, sustained by the local indigenous siSwati language and consisted of traditional oral material. The oral literature took the form of narratives like folktales, myths, legends and epics celebrating the feats of the Swazi society and its heroes. Oral poetry took the form of songs and praises during ceremonies and festivities, and incantations and recitations during rituals and other religious ceremonies. Each individual also developed songs and praises for himself" (p. 3). What is noteworthy, is that the Swazi people particularly liked a song entitled 'Mswati uyinkhosi ka Hhohho' (Sikhondze, 1987), the song was "dedicated to one of their kings and recounts Swazi history, how king Mswati 11 established the Swazi nation and it also tells of the events that occurred between 1904-1907 when Swaziland was partitioned into European farms, crown lands and the Swazi national land"(p.32). Sikhondze further discusses "the King's praises which gives the history of his birth, achievements, exploits, etc. These are usually chanted during national ceremonies. In addition, during this pre-colonial period, it was imperative for the individual to respect the social institutions which predetermined his/her individuality. These institutions encouraged in the individual the positive values of industry, courage, integrity and filial devotion. While making some allowances for social deviance, the institutions deplored such negative traits as cowardice, greed and selfishness of individualism. Through this form of literature, Swazi history and culture was passed on by word of mouth to future generations through oral tradition (such as annual cultural ceremonies like the Incwala and the Umhlanga/ Reed Dance, the cutting of the 'Lusekwane' or ceremonial weeding of the King's fields, 'buganu' marula festival, are many other ceremonies which are occasions where oral compositions are performed. The Swazi personality was therefore cultivated by

bringing up men and women with a Swazi spirit who had respect for elders and traditional norms, and a deep knowledge of the tradition of the land as well as a deep veneration of the king" (Sone 2011, p. 3-4). It is in the light of the above history of oral tradition that the current study will use oral narratives as one of its modalities on three age groups of English-siSwati bilinguals.

However, on another note Ravid et al., (2016) have another definition of literacy and language development. Ravid et al., (2016, p.346) state that, "linguistic literacy is viewed as a constituent of language knowledge characterised by the availability of multiple linguistic resources and the ability to consciously access one's own linguistic knowledge and view language from various perspectives". Therefore, accessing the numerous linguistic resources by pre-school children, in the form of graphic signs for writing texts is the beginning of using written language for the pre-schoolers. However, mastery of multiple linguistic resources and meta-linguistic awareness of written language can only be completely accomplished in adulthood (Vilageliu, Lasheras, Ramis & Castella, 2016).

Research (Genesee, Lindholm-Leary, Saunders & Christian, 2005; Uccelli & Páez, 2007) has recognised and acknowledged that "English oral language ability is crucial for the development of literacy for bilingual students. Moreover, for learners to be fully proficient and literate in language use, they must have a strong oral command of the language. Children's oral proficiency provides a chance to see how successfully they will learn to read.". Furthermore, it makes sense that learners who are conversant when it comes to their L1 are more likely to have an advantage in acquiring literacy in a second language. Genesee et al., (2005) posit that there is a relationship between English oral competence and literacy in English since literacy develops out of oral competence first. This relationship grows tremendously throughout the grades, perhaps because both (oral proficiency and literacy) are influenced by schooling and both are indicators of academic achievement. It should be noted that children start school already equipped with language as an oral resource and not as blank slates. "These children already possess language skills and knowledge such as telling basic stories, a language resource that should be utilized and improved by the school in order to foster learning" (Cummins 1991, p. 77). This is the reason why it is important to introduce any literacy skills in the learner's first language before migrating to the second or third language. Most literacy policies in primary schools in Africa have strongly advocated for the use of the first language as the basis for learning in the first four grades of

primary school. For instance, in Eswatini Ministry of Education siSwati, the mother tongue is the language of instruction from grade 1 to grade 4. English is only taught as a subject from grade 1 to grade 4 and then change into the medium of instruction from grade 5 up to university (Ministry of Education and Training, 2011). Likewise, in Zambia, at the introduction of the primary reading programme (PRP) a literacy policy was approved. "This policy provided that the medium of initial literacy was a familiar language which was practically a regional official language according to province. This in essence meant that, a local language which was not necessarily a regional official language was used as medium of instruction for the first two years while a regional official language was used in the third and fourth year of schooling" (Kombe & Mwanza, 2019, p. 115).

Similarly, in Uganda Ssentanda and Andema (2019) state that The Thematic Curriculum was introduced to try and enhance the education system outcomes. They argue that "the curriculum specifically required teachers to use the local language to teach literacy from Grade 1 to 3 with Grade 4 as a transition class in which teachers are encouraged to gradually shift from the use of the local language to the use of English as a medium of instruction. From Grade 5 onwards, teachers are required to use English as the medium of instruction and mother tongue to be taught as an examination subject" (p. 75-76). Ssentanda and Andema (2019) put emphasis on that "storytelling builds learners' language skills in terms of inter alia vocabulary, conversation skills and cultural values, and the development of biliteracy is ensured" (p. 78). On the same subject of biliteracy, Bustamante (2002) confirms that "storytelling encourages children to begin to learn to read. Stories are interesting and children enjoy them. Storytelling, therefore, promotes reading as children search for a told story in text form" (Bustamante, 2002, p. 4). Similarly, Peck (1989: 139) points out that "many tellers (storytellers) attest that young children will often ask to read a particular book after hearing it told". Most importantly, research (Miller & Pennycuff, 2008; Craig, Hull, Haggart & Crowder, 2001) indicates that storytelling encourages children to engage in reading comprehension and would in the long run be drawn to writing.

Storybooks in both the school and home settings have a major effect on the students' written and spoken narrative discourse competence in both their first and second language. It is for this reason that there is a need to review the literature on the effects of literacy on language development.

In a study to investigate if listening to stories in Arabic would have beneficial effects on pre-schoolers' development of literacy skills, a sample of 307 Arabic pre-schoolers was investigated. The findings of this study indicate that the pre-schoolers in the experimental group surpassed those in the control group in comprehension and active use of language, especially on the proportion of clauses, expression of causal connections, and use of story endings. This study confirms the positive impact of storybooks on language development (Feitelson et al., 1993).

Morrow (1988) studied 79 pre-schoolers who were of low socio-economic status (SES) in three urban day-care centres. The research showed that frequent one-to-one story readings in a school environment indicated a positive effect on the number and complexity of comments and questions in children of low-SES. This shows that the storybook has an effect on language development.

Another study of children in a home-based environment with intervention to enhance parental picture book reading to their children indicated a higher effect on language development in terms of mean length of utterances, frequency of phrases and a lower frequency of single word use in comparison to a control group that had no such intervention (Whitehurst et al., 1988). This study clearly showed that a strong literate orientation, even at home, has a positive effect on language development.

In a Family Literacy Project in KwaZulu-Natal, a longitudinal study investigated pre-school children in grade R to assess the children's language and developing literacy skills compared to grade 1 children who were not in the project. The results indicate that the grade R children who were in the Family Literacy Project outperformed the grade 1 children on the literacy tests and displayed stronger language and discourse development. This proves the fact that reading storybooks to pre-school children has beneficial effects on their language development (Ntuli & Pretorius, 2005).

2.1.4 The Narrative Discourse in Bilinguals

Narrative productions or storytelling by bilingual children offer researchers a chance to study the mental developments, language and cultural systems and where they come together in the bilingual child's development (Fiestas, 2008). First and foremost, narrative discourse is an account of stories by people with a clear sequence of events or episodes which includes the

people's life encounters, imaginary stories and recounts of programmes from the television, books or films (Scott, 1988). Narratives are sequential and also focused on the agent recounts and generation of stories, usually in the past tense (Scott & Windsor, 2000). Similarly, Hao et al., (2018) put it forward that the stories generated are made out from numerous language parts and that stories are key in assessing not only typically developing children but also children with language development disorders (LDD). Hao et al., (2018) say that "narrative production incorporates various language components into a complete story. Narrative evaluation thus provides a rich description of children's expressive language. Assessing narrative production is informative in understanding language manifestations of children with LI" (p. 345). Furthermore, Curenton and colleague argue that "narratives can be about personal experiences or fictional events (i.e., fictional narratives) and can be prompted or unprompted. As with other domains of language, children show developmental changes in their narrative skill over time" (Curenton & Justice, 2004, p. 247). The sentiment that narrative discourse could be all about stories told from generations past is also shared by other researchers in the area of narrative discourse analysis. On the same subject, Greenslade, Stuart, Richardson, Dalton and Ramage (2020) assert that "narrative discourse, or storytelling, is critical to everyday communication, allowing us to entertain, impart important life lessons, and revisit events with others." (p. 1). Additionally, narrative samples are regarded as the best tool for language sampling, especially for bilinguals, since they give researchers a chance to study an extensive range of children's language production skills in more real-life situations because they are a culturally and linguistically appropriate (Bedore, Peña, Gillam & Ho, 2010). According to Dam, Pham, Potapova and Pruitt-Lord (2020) "language samples should be used to assess children from culturally and linguistically diverse backgrounds, and this includes the Vietnamese–English bilingual children participants of their study"(p.1213). They further state that "language samples can be gathered in numerous ways including story retell, which gives children the opportunity to become familiar with the story before reproducing it. Moreover, samples should be elicited in both languages for a comprehensive assessment of children's overall abilities. They argue that if the clinician is not fluent in for instance, Vietnamese, the use of an interpreter is advised in order to get maximize clarity of instruction. They further recommend recording the child's production of the story retell because it allows for transcription and analysis" (Dam et al., 2020, p. 1222). In sequential bilingual children in bilingual settings, the connection between input and development on language learning is of importance since children with differential

experiences may present different performance in each language on narrative production (Fiestas 2008).

Furthermore, research on bilinguals' production of narratives reveals that the way a narrative or story is narrated and the information that is made prominent in the story narration is all influenced by the language of narration (Bedore, Fiestas, Peña & Nagy, 2006; Fiestas & Peña, 2004). For instance, a study by Fiestas and Peña (2004) on bilingual Spanish and English-speaking children, investigating the narratives elicited in both languages, is relevant. Fiestas and Peña (2004) found that Spanish-English children narrating a similar story in both languages, generally used more Spanish narrative schemata of Initiating and Attempts event narrative structures with regards to macro-structure. Whereas, when producing the same story in English they generally used the narrative structure of consequences. This finding confirms the fact that the children used organisational schema that had a relationship to the nature and culture of that particular language.

Narrative production is one genre that is well studied (Torng & Sah, 2020; Greenslade et. al., 2020; Dam et al., 2020; Bel, Perera & Salas, 2010; Chan, 2003; Mandler & Johnson, 1977; Pu, 2006; Sun & Yang, 2011). This research shows that even young children have well-developed story schemata. It is largely for this reason that narratives, the written or spoken accounts of related events, are a genre that is common world-wide. They are very important in the lives of human beings and are mutually shared by various cultures the world over (Berman & Slobin, 1994; Miller, Gillam & Peña, 2001). The narratives are important in keeping traditions and for conveying information from generation to generation (Lofranco, Peña & Bedore, 2006). Moreover, the production in narratives reveals the thoughts of the people and is also key in understanding and producing language for academic achievement.

Using narratives to describe language development is a great advantage because they are a source of information about discourse-level organisation, productivity as well as sentence-level organisation (Fiestas & Peña, 2004). The narrative displays a "more constrained form than a single utterance and exhibits specific properties of coherence and cohesion which requires cognitive abilities like expressing absent referents, contextualising linguistic information, and cognitive decentration to read the interlocutor's or reader's mind", (Colletta et al., 2015, p. 124). Bowles et al., (2020) add that not only do narratives present the above in but they "can provide information about many aspects of the child's expressive language, including general language productivity

(e.g., total number of utterances), vocabulary (e.g., number of different words), syntax (e.g., percentage of utterances containing multiple clauses), and morphology (e.g., accuracy of word inflections)" (p. 390). In fact, Berman (2004) and Hickmann (2002) posit that the narrative is important because it requires the linguistic, social and cognitive abilities of the bilingual individual. Kunene Nicolas (2015) further clarifies this statement on the narrative, that "the construction of an original story, in speech or in writing, is a complex and demanding process, involving formulating, planning, and organising ideas, beyond the sentence level as well as self-regulation and pre-suppositional capacities, i.e. pragmatic skills" (Kunene Nicolas, 2015, p. 2).

Furthermore, the genre of narratives structurally allows the construction of "temporal (time) and spatial (space) relationships" in a combining fashion (Bamberg, 2010, p. 133). This allows for the presentation of characters as "protagonists or antagonists" and also allows for character development as opposed to the epic which does not allow for any character development across time and space" (Bamberg, 2010, p. 133).

Children as young as four years of age discern that a story comprises a setting, a goal, and an action and that these elements will describe a conflict which the character must resolve in order to achieve the goal with its resulting consequence (Hidi & Hildyard, 1983). However, for children to produce a good story grammar, they need to manage the organisation of episodes with the production of utterances that express specific meaning.

Hence the use of narratives plays a significant role, since children would be challenged to generate longer and more complex utterances in narrative story-telling than in their normal casual spoken language (Bedore et al., 2010). Developmental studies have shown that the acquisition of narrative proficiency is a languorous process, which occurs in the pre-school years and is not entirely advanced until adulthood. Some adults never become fully proficient narrators (Berman & Slobin, 1994; Heilmann et al., 2010; Kunene Nicolas, 2015; Kunene Nicolas, Guidetti & Colletta, 2017). The ability to generate narratives has been established as a prognosis for academic performance and literacy (Gutiérrez-Clellen, 2002). Thus, she states that children's oral narrative production may make known language-based aspects of academic readiness. Similarly, with monolingual children, "there is a substantial predictive relationship between oral narrative skills and reading outcomes in children learning a second language" (Miller et al., 2006, p.63).

Narratives assist in separating children that have language disorders from those that do not have, in many languages. They also have the possible effectiveness of detecting or identifying low language ability in bilingual children (Bedore et al., 2010). When assessing children from multicultural and bilingual backgrounds, the application of language sample analysis has been encouraged (Stockman, 1996). Language sample analysis is considered a standard, quantitative method that evaluates productive language at all levels of performance (Fiestas et al., 2005). Narrative sampling is recommended as a fair and more reliable method of language assessment (Lofranco et al., 2006). For narrative assessment to be considered an effective method for identifying language disorders, the narrative should be in a position to describe normal language presentations and also be able to figure out normal differences in diverse groups of children (Gutiérrez-Clellen & Iglesias, 1992). Moreover, to decrease partiality in the assessment of bilingual narrative production, typical language differences have to be clarified and described in detail in the bilingual's languages as they use them in their situations (Fiestas & Peña, 2004).

In order to understand how the bilingual narratives are assessed it is crucial to review studies that examined the bilingual narratives. In a study by Dam et al., (2020) of Vietnamese - English bilingual children they used language sample analysis to describe the children's first and second language development. To achieve this, Dam et al., (2020) "characterized typical language development in Vietnamese and English for bilingual children between the ages of 3 and 8 years. They used language sample analysis, an approach that is appropriate for children from a wide range of backgrounds. Specifically, they used GRAM and SI to describe grammatical development in each language and shared patterns across languages. GRAM and SI have been found to be sensitive to age/development in English, Spanish, and other languages, and this study examined their usefulness in Vietnamese and English" (p. 1219). Dam et al., (2020) "when using language sample analysis, such as GRAM and SI measures they provided detailed information on a child's grammar and sentence structure. As children in this sample were typically developing, most utterances produced were grammatically correct. When errors were produced, they included errors specific to Vietnamese and errors specific to English, as well as errors that were present in both languages. Consideration of these errors provides a window into typical language development in Vietnamese–English bilinguals. Most Vietnamese-only patterns included omission errors of classifiers, objects, or subjects. Most English-only patterns included errors with verb tense or verb omission. Because Vietnamese and English have highly distinct grammatical systems, it is not

surprising that there were different areas of difficulties within each language" (p. 1220). Therefore, by using the children's narrative language samples it was possible to obtain valuable and more accurate information on the sentence structure and grammar of Vietnamese bilinguals.

Despite much excellent work on themes such as bilingual children and oral narratives, scholars examining the spoken and written narrative genre have not yet fully explored the importance of narrative productions of bilinguals in their two languages; nonetheless, the cross-linguistic research is enlightening in detailing differences in narrative discourse production. Fiestas (2008) asserts that bilingual children may show different forms of performance, in keeping with the language of testing, in storytelling. However, the few studies that have paid attention to bilingual children have neglected the older children and young adults, even in dominant languages such as English, Spanish and French (Bedore et al., 2006; Dart, 1992; Fiestas et al., 2005; Fiestas & Peña, 2004; Miller et al., 2006).

Most studies have focused primarily on oral narratives and less attention is given to the written narratives, which could give a clearer picture than the current one on bilinguals. Still, clear accounts in research on the participant's experience, use and competence in each of these two languages are inadequate. Also, there is a lack of research on comparative evidence showing narrative discourse productions in the participant's two languages. Yet, without such an understanding, it would be challenging to construe or assess the capability of children coming from different languages and social experiences, so we remain with inaccurate information on bilinguals' evaluation of productive language and diagnosis of language deficiency. This study has offered a remedy to this gap in the literature by investigating the comparison of spoken and written narrative discourse productions of English-siSwati bilinguals.

2.1.5 Oral and Written Narrative Skills in Children, Adolescents and Young Adults

The narrative abilities are extremely significant, not only at an early age but also in later school years, because they are a reliable measure of future reading comprehension skills and literacy skills, (Uccelli & Páez, 2007). Oral narrative and literacy abilities are intertwined in their development, especially in typically developing children. Therefore, "children's understanding of narratives is important for their language and cognitive skills because narratives provide a conceptual framework for organizing written and oral information" (Paris & Paris, 2003, p. 42).

Moreover, a lot of studies (Terry, Connor, Petscher & Conlin 2012; Craig, Kolenic & Hensel 2014) have shown that there are connections between children's written and spoken language skills. However, the written narratives develop a bit later and are estimated at around 60% the length of their oral narratives (Gillam & Johnston, 1992). Furthermore, before formal instruction starts, pre-schoolers can differentiate between written language and drawing (Tolchinsky, 2007) which indicates their developing literacy skills and cognitive abilities. "To be able to produce a good oral narrative requires high-level linguistic and cognitive abilities" (Reilly, Losh, Bellugi & Wulfeck, 2004; Paul, Hernandez, Taylor & Johnson, 1997). "For children to produce good narratives, they need to sequence events, understand relationships between cause and effect, create a cohesive structure for the event, use precise vocabulary, and structure according to story schemata" (Paul et al., 1997). "As a result, the integration of linguistic and cognitive knowledge is crucial in order to produce narratives that demonstrate complete social cognitive skills" (Curenton, 2011, p 799; Hudson & Shapiro, 1991). "In producing a narrative, children use linguistic knowledge to express information about the characters, events, and the sequence of the events of narratives, and also to narrate according to the audience at hand. Simultaneously, children use cognitive knowledge to deduce the motivation and goals of characters' actions and reasonably construct and organise the relations between events to get to the intended theme of the narrative" (Holck, Sandberg & Nettelbladt, 2011, p. 264). Furthermore, it is in the course of schooling years that the abilities of children in narrative production advance and begin to show elements related to literate, decontextualised language (Squires, Lugo-Neris, Peña, Bedore, Bohman & Gillam, 2014). These elements include linguistic verbs and mental verbs (Westby, 1991) that provide information about utterances considered as actions (such as to whisper, to talk) and the states of the mind (such as to think, appreciate and wonder), adverbs, and expanded noun expressions that have possessives, articles, or quantifiers, (Eisenberg, Ukrainetz, Hsu, Kaderavek, Justice & Gillam, 2008).

Narrative proficiency is comprised of two important areas: macro-structure and micro-structure (Justice et al., 2006). Montanari (2004) states that macro-structure entails the ability to put into words a sequence of events or the structure of the entire story (Squires et al., 2014) and making inferences about characters' intentions. Macro-structure provides a window through which we could examine children's higher-order narrative abilities beyond the utterance level (Mendez et al., 2018). This could be evaluated by measuring children's capacity to organise a comprehensible narrative recount using "the setting, initiating event (problem), internal response

(feelings), plan/attempts to solve the problem, consequence, and resolution" (Justice et al., 2006, p.28). Furthermore, studies (Gutiérrez-Clellen, 2002; Pearson, 2002 Uccelli & Páez, 2007) state that measures of macro-structure, particularly in story recounts, indicates age-related changes and cross-linguistic changes in the narratives of bilinguals. On the other hand, microstructure denotes the ability to produce language complexity structures such as number of clauses/utterances, and the number of words called measures of productivity, sentence length called linguistic complexity and morphosyntactic quality (such as particular kinds of lexical units /words and phrases/sentences that form the story line) (Squires et al., 2014 Bedore et al., 2006; Hipfner-Boucher et al., 2015; Bedore et al., 2010; Fiestas & Peña, 2004). Examination of children's productions of narratives and literate skills offers a wealth of description of children's language skills (Heilmann et al., 2010).

Labov (1972) postulated that there are six stages that make up a complete structure of an oral narrative namely: the abstract, orientation, complicating action, evaluation, resolution and coda. Each of these stages addresses a hypothetical question about the narrative structure; therefore, each fulfils a different function in a story. To make a narrative that can be followed easily, there are numerous stages that one can follow, usually quickly and without thinking. With all narratives, there is an event that can be described. "This denotes the clause with a subject and a predicate of the narrative. From this main event, there are sequences of other events that led up to the main clause," (Ahmed, 2015, p. 39) with each linked to the other as in Table 2.1.

Table 2.1 Stages of a narrative structure (Labov & Waletzky, 1967, p. 70-73)

"Narrative category	**Narrative question**	**Narrative function**
Abstract	What was it about?	Signals that the story is about to begin and draws attention from the listener.
Orientation	Who or what is involved in the story, and when and where did it take place?	Helps the listener to identify the place, persons, activity and situation of the story.
Complicating action	Then what happened?	The core narrative category providing the 'what happened' element of the story.
Resolution	What finally happened?	Recapitulates the final key event of a story.
Evaluation	So what?	Functions to make the point of the story clear.
Coda	How does it all end?	Signals that the story has ended and brings the listener back to the point at which s/he entered the narrative"

Story grammar analysis is a method that is commonly used to analyse the organisation of an oral narrative. Stein and Glenn (1975; 1979) have developed Rumelhart's work further, by extending and developing the narrative schema into supposed story grammars. Narrative schemas support a wide range of narratives, which makes them less precise but very abstract. These schemas are recurrent and comprise of several categories and a system of episodes. Bamberg (2010) states that story grammars in a sense, show the sequence or organization of events in a story line

(macrostructure) and are helpful to the person listening in determining and getting to understand the events and information given in the story.

Stein and Glenn (1975) posit that a story grammar consists of six components: setting, initiating event, internal responses (goal), attempts, direct consequences (outcomes), and reactions.

“The structure of the story is comprised of a **system of episodes**, which consist of one or more episodes that are connected to each other in a variety of ways. Each episode consists of the following categories:

The role of the **setting** is to present the main figures and describe the social and physical context, the time and place, when and where the story occurs. Setting sentences usually appear at the beginning of the story, but may appear anywhere in the narrative schema, for example, when there is a need to introduce a new character or a new physical or social context.

The **initiating event** creates a response from the protagonist. The informative content of the initiating event includes changes in the state of the physical environment caused by the protagonist, an action taken by the protagonist or some other character, inner responses such as perceiving an external event, and changes in the protagonist's state.

The i**nternal response** and **internal plan** consist of the programme's continuum. The **internal response** pertains to the protagonist's psychological state after the initiating event and seeks to create an action plan continuum. The internal response also includes statements regarding the protagonist's feelings, goals and thoughts. This category is omitted in some parts of the narrative, as the protagonist's internal response can be inferred from the initiating event or his subsequent behaviour. Even when the written story does not include the protagonist's internal response, it is nevertheless included in the internal representation of the story. The **internal plan** consists of statements which define the protagonist's strategy in an endeavour to bring about a change in the situation and includes information regarding the goals and thoughts about it.

The **attempt** refers to the protagonist's external actions for reaching the goal.

The **result/direct consequences** contain information on whether the protagonist reaches or does not reach his/her goal.

The last category in a story's action structure is the **reaction**. It includes the protagonist's responses and thoughts while he strives to reach his/her goal. In contrast to the category of internal response, the reaction does not include a goal and does not lead to an action plan. If reaching the goal entails a response leading to an action plan, it marks the beginning of a new episode." (Stein & Glenn, 1975, p.9-11)

The story grammar analysis tries to identify these components in a narrative. These six components developed by Stein and Glenn (1975) have been found to indicate developmental growth. This study has referred closely to Labov's (1972), Labov & Waletzky (1967) macrostructure and Stein and Glenn's (1975) story grammar analysis.

With the above internal structure of the stories produced, narratives provide the best presentation of the children's skills of oral language ability. "The narrative structure is acknowledged as fundamental to the development of oral and written communication skills. Investigation of children's oral narratives provides a window into how children combine numerous systems of the language at the same time" (Miller et al., 2006, p.34). Research studies in language development have shown that learning language forms in children starts from being involved in interactive discourse (conversation). Then they employ these linguistic forms to master numerous discourse genres (Ervin-Tripp, 1989). It is worth noting that, for children to attain literacy skills much faster through the elementary school years, they need to have better oral language skills. This correlation between verbal or oral language skills and reading ability has been recorded in numerous research studies over the years (Gutiérrez-Clellen, 2002; Snow, 1983).

Berman (1988) and Bamberg and Damrad-Frye (1991) found considerable development in story length from pre-school years through to school-age years. Peterson & McCabe (1983) found that by age six, children can produce oral narratives that typically consist of complete episodes including initiating events, motivating states, attempts, and consequences in their narratives.

Rezzonico et al. (2016) conducted a study comparing 47 oral narratives produced by English-Cantonese bilinguals aged four and five. These children were using a picture book with no words written in it entitled '*One Frog Too Many*' by Mayer (1975) as a stimulus. The results indicated that in their two languages, the five-year-olds showed greater components of story

grammar, higher morphosyntactic quality scores and more mean length of utterance in words, than the 4-year-olds. Furthermore, the findings revealed that the five-year-olds kept on improving their English language skills while still advancing their Cantonese language proficiency.

Bamberg and Damrad-Frye (1991) contrasted productions from young children (five-year-olds) to those of older children (nine-year-olds) in an urban school, and adults (college undergraduates), in the analysis of oral narratives from a 24-picture storybook. The results indicate that the use of (abstract) higher-order language such as metacognitive and meta-linguistic verbs characterised the high-level language skills of older narrators and also helped experienced narrators to organise the categorised connections between episodes in the story. This abstract language can be seen in young children and again in the later school-age years, continuing to advance through adulthood.

Orsolini, Rossi and Pontecorvo (1996) conducted a study on the re-introduction of referents in Italian children's narratives. The children were between four and ten years of age. They found that older school-age children proved to be more proficient than pre-schoolers in oral language skills when making judgements when the null form or clitic were not giving adequate information, therefore, demanding a full noun to be used in its place. In the development of anaphoric resolution, Nippold (2004) found that the linguistic skills for articulating reference increases with age, consequently narrative development comes about in late childhood (12 to 15 years of age). Halliday and Hassan (1976) advanced that adult proficiency in narration requires the ability to handle advanced language skills to express spatial, temporal, and causal events in sequential order as well as being able to link sentences using cohesive devices.

Berman (1988) evaluated narratives generated by first language Hebrew speakers in pre-schoolers, school-age children, and adults who recounted stories that were the same to the pictures in Mayer's, *Frog Where Are You?* (Mayer, 1969). The study results indicate that pre-schoolers' stories were not well developed in terms of macro-structure and micro-structure. Their story re-tells had not grasped the higher and complicated forms of grammar and they were still developing expressions and the proper organisation abilities needed to tell complete stories with a higher complexity. In the early years of school, children had acquired the simple macro-structure (goal-focused actions, initiating the event, and a consequence) of stories, however, children's language did not utilise the specified lexicon and complex grammatical forms to create effective narratives.

On the other hand, adult re-tells incorporated various discourse structures in their first language such as the vocabulary that is abstract to create narratives that are high in complexity, clear and coherent. Children learnt the elements of macro-structure that describe a simple structure of events before they mastered the microstructure elements that are complex and connected to specific lexicon and complex syntactic forms in narrating their stories. In conclusion, typically developing children used more numbers of complete episodes as well as embedded episodes as their age increased.

From this discussion, it can be noted that the basic narrative schema forms early in a child's life and assists the child to comprehend the stories they encounter. The development of the schema continues through adolescence, in both the informal and formal environments through interactions with other children and adults.

For the purposes of this study which investigates an indigenous language like siSwati, it is important to review literature that comes from indigenous situations so as to understand the narrative abilities in oral and written narratives of children, adolescents and adults which are similar to this study. The detailed studies that are discussed below come from indigenous languages and are less studied languages which are similar to siSwati a less studied language investigated in this study and also structurally different from English which has been studied widely.

A study of an indigenous language was carried out by Pearce and Flanagan (2019) investigating the narrative skills of Indigenous Aboriginal children compared to non-Indigenous children in Australia. Pearce and Flanagan (2019) compared the two sets of children using three protocols. The children were in their first year of school and were recruited from government schools in the five Australian states. There were 49 children who took part in this study. Of the 49 children "25 were Indigenous participants who ranged in age from 4;11 to 6;5 with a mean age of 68.6 months and this included 12 boys and 13 girls, and comprised 16 Aboriginal, five Torres Strait Islanders and four children of both Aboriginal and Torres Strait Islander background. The 24 non-Indigenous participants ranged in age from 4;10 to 6;3; with a mean age of 65.5 months (SD 4.73) and included 9 boys and 15 girls. The Indigenous participants were significantly older than the non-Indigenous participants, but this was not of high concern as the focus was on abilities of narrative production of children in the same year of school. Three non-standardized Australasian

story-telling stimuli elicitation tools were selected for the study. All three tools included picture stimuli, comprehension questions and the full range of story grammar elements in the story script. Two tools required a re-tell: one with looking at the picture and retell the story called William's Baby Brother (WBB) and one retell without looking at the pictures called For Ana Gets Lost (AGL). One tool required a story generation called The Football Story (TFS). The WBB story stimulus comprised 11 pictures within 11 frames and a script of 270 words; and depicted three characters. The AGL story stimulus comprised nine pictures in six frames and a script of 194 words; and depicted five characters. While the TFS story stimulus comprised four pictures in four frames, with no exemplar script, and depicted 10 people plus a dog. The three tools were administered in one or two sessions of 20–40 minutes within three weeks of each other. All stories were audio-recorded," (Pearce & Flanagan 2019, p. 209) transcribed and analyzed.

The results of Pearce and Flanagan (2019) study show that "early developing macrostructure and quality elements were present in the stories of both Indigenous and non-Indigenous Australian children in their first year of school. That is, plot elements occurred most frequently in both groups, as demonstrated in three-story average scores. Internal States occurred least frequently, and the highest three-story average element score was for Initiating Event. The character, initiating event, attempt/action and consequence elements were in high use (>70%) and Internal plans, formulaic markers, causal adverbial markers and evaluations were used rarely (< 10%). Story complexity differed significantly across the three protocols. the WBB and AGL retells elicited more complex stories than TFS generation" (Pearce & Flanagan, 2019, p. 212-213) and this was no surprise since this is consistent with research that has shown that young children produce more complex stories in a retell than a generation task (e.g. Merritt & Liles, 1989, p. 431). The results in the study above is consistent with some studies in Europe that did not find any differences in language groups or cultures.

Similarly, a less studied population of children of an indigenous language with specific language impairment (SLI) which lately is called Developmental Language Disorder (DLD) Torng & Sah, 2020) was recently carried out. Torng and Sah (2020) investigated narrative abilities of Mandarin-speaking preschool children with and without developmental language disorder. "Two groups of Mandarin-speaking children participated in this study, including 18 children with SLI (ages 4;11–5;10) and 18 TD children (ages 4;11–5;10) matched on chronological age, with 13 boys

and 5 girls per group. All children attended the last year of regular kindergarten at the beginning of the study. The children with SLI were required to score lower than 1.25 SD below the mean for their chronological age on the language development index and the TD children scored 1SD above the age mean. A wordless picture book Frog, where are you? (Mayer, 1969) was used to elicit an oral narrative from each participant. The wordless picture book was used in order to control the content of narratives" (p. 461). The wordless picture book was selected in this study because it has been used widely to elicit narrative abilities of both typically developing children from different language backgrounds (Berman & Slobin, 1994) and a number of populations with developmental language disorder (such as, Pearce, James, & McCormack, 2010; Reilly et al., 2004; Norbury & Bishop, 2003). "A generation task that employed Frog, Where are You? was used to collect narrative data. The generation task was chosen here because it was found to be more challenging, as compared to other tasks like story-retelling, and thus would offer a better indication of differences between the SLI and comparison groups" (Pearce et al., 2010, p. 637).

The results of Torng and Sah (2020) study of Mandarin-speaking children with SLI and their TD agemates indicates that "the SLI children demonstrated poorer performances in all three macrostructural measures, while the only microstructural measure that the SLI group had difficulty with was lexical diversity. That is, the language-impaired children's abilities at macrostructural and microstructural levels seemed dissociable. For instance, they showed deficits in constructing causal networks of narratives but good performance in using conjunctions, story length and syntactic complexity. The processing difficulties in SLI, such as limitations in processing capacity and in verbal working memory suggested, children with SLI may have limited resources to cope with the "complexity of a narrative task hence they struggled with lexical diversity" (p. 471). On the whole, macrostructure and lexical diversity was effectively used in this study to demonstrate a separation of Mandarin-speaking typically developing preschoolers and those with SLI. Though these children in this study were preschoolers but information on their performance in the indigenous language was useful to inform my study.

In another study of the less studied indigenous languages was conducted by Abdalla, Mahfoudhi and Alhudhainah (2020) on Kuwaiti Arabic-speaking children at preschool, school going age and adult controls. "There were 97 typically developing, monolingual, Kuwaiti Arabic–speaking children aged 4;0 to 7;11 (years; months) and 25 Kuwaiti adults. The adults who served

as controls were between 19 and 60 years old. All the children attended Arabic preschool and elementary public school in four grade levels: Kindergarten 1, Kindergarten 2, Grade 1, and Grade 2. The public schools represented all six governorates of Kuwait. The children were subdivided into four groups according to age (4- Kindergarten 1, 5- Kindergarten 2, 6-Grade 1, and 7-year-olds Grade 2). There were 51 boys and 46 girls, whereas the opposite was true for the adult group with eight men and 17 women. Instruments used to elicit the narratives were from two sets of stories (A and B), each with varying levels of complexity in terms of number of episodes. Bothe stories were selected from set A. Story A1 was a one-episode simple story with two characters entitled "The Ball" and story A3 the second story entitled "The Airplane," was more complex, consisting of three episodes and four characters. Following the ENNI instructions as presented in the work of Schneider et al. (2005) the children's stories were audio recorded, independently transcribed and analyzed overall measure of story grammar elements that were included in story formulation" (p. 408). The results of the study are elaborated in the following discussion.

The results in Torng and Sah (2020) showed that "the quantity of story grammar elements included in the children's stories increased with age. That means there was a progression by age in the development of story macrostructure in Kuwaiti Arabic–speaking children. On the other hand, no effect of story complexity was found. Essentially, the children's mean story grammar scores for the simple A1 story were not statistically different from the multi-episode A3 story. This indicates that the children were probably still in the process of developing their story grammar. Across all age groups, the core macrostructure elements were mastered before the complementary units. A particularly interesting finding that seems to be specific to (Kuwaiti) Arabic, compared to the results found in elsewhere, is that the complementary units of "internal plan," "internal response," and "reactions" do not seem to be essential elements in the stories of the adults. However, the other two complementary elements of "character" and "setting" were included in all the adults' stories and, to a large extent, in the children's narratives. This could be a cultural difference that is specific to (Kuwaiti) Arabic speakers who tend to focus on actions and overlook the internal states of the characters. Another possible reason for this is that feelings and plans are less imageable and salient in a picture story and were less likely to be used by participants". Torng and Sah (2020) further make recommendations that can be helpful to future studies on indigenous languages (such as siSwati which was studied in this research) based on their study that "in the context of Arabic, it is important to use tasks that are not dependent on literacy (books) because in

early years and particularly in less advantaged families, access to literacy, including the use of books, is limited. Furthermore, they recommend that it is also crucial to study the storytelling practices at home, in nursery, and in school environments, in addition to the systematic use of dialect and the standard variety to facilitate more effective language assessment measures" (p. 412). Above all, they made an astounding recommendation that, since the concept of story grammar (SG) was far removed from the indigenous languages, given that it was constructed on Western European convention it was important to consider differences in cultures when investigating other languages. For instance, removing some of the components in the story grammar that were not relevant to that particular language so that the assessment is not biased against the participants of other cultures and traditions. This recommendation is important because it serves as a warning to other researchers in indigenous languages to be wary of how the task may be biased. Such information was important to inform this study as a result a short video with a local flare was used to elicit narrative productions in English and siSwati.

Still on the investigation of indigenous languages, a study was conducted to investigate the narrative skills at the macrostructural level amongst Croatian children with developmental language disorder (Kuvač Kraljević, Hržica & Vdović Gorup 2020). Kuvač Kraljević et al., (2020) in their investigation, 40 children were involved and 20 of them were children with DLD while the other 20 participants were typically developing children acting as a control group. There were 26 males and 14 females all at kindergarten and their mean age was 6.6 years, all monolingual speakers of Croatian.

The method of data elicitation was story retell and story generation tasks. "Test material consisted of four stories divided into four sets of pictures presented on a computer screen. The first two sets of stories, each consisting of six pictures, were used to examine story generation ("Baby Birds" and "Baby Goats"). The second two sets of stories, each consisting of six pictures, were used to examine retelling ("Dog" and "Cat"). Two narrative texts were also audio recorded for the purpose of examining retelling. Each of the four stories consisted of a situation and three episodes, where each episode consisted of five structural components: initiating event, goal, attempt, outcome and internal state as reaction. Controlling the structural complexity of the story enables the analysis of the story on a macrostructural level, regardless of the type of elicitation. Transcripts were used for evaluating story structure. All stories produced by children were analysed using the

scoring protocol for analysis at a macrolevel, which was developed and provided with the test materials" (p. 459-462).

The results of this study show that "there is a significant main effect of group [$F(1, 38) = 12.004$, $p = 0.001$] and a significant main effect of elicitation type ($F(1) = 9.209$, $p = 0.004$). However, the interaction between elicitation type and group ($F(1) = 0.403$, $p = 0.529$) is not significant. children with TLD outperformed children with DLD in the production of story structure components in both conditions. However, this analysis also indicated that the type of elicitation had an effect on the success of narrative performance. Both groups produced more story structure components in the retelling condition than in the story generation condition. With regard to elicitation type, both groups of participants marked the initiating event and outcome (i.e. the problem and problem solution in a story) more frequently in retelling than in story generation. On the other hand, retelling is a measure that not only reflects the fact that children with DLD are capable of organizing a story on a structural level despite their modest language knowledge, but also that this capability continues to gradually develop after the age of five, although not as quickly as for children with TLD" (Kuvač Kraljević et al., 2020, p. 465-467). This study was important in informing which elicitation method was effective for an indigenous population with or without language disorders.

Another study of indigenous study of Mandarin-speaking children with language impairment was carried out by Hao et al., (2018). Hao and colleagues investigated the oral narratives of school going children which is slightly different from the other study reviewed earlier on about Mandarin-speaking children by Torng and Sah (2020). This study is particularly important too because it reviews an indigenous group, which compares typically developing school going children and children with language impairment. Moreover, the two studies Torn and Sah (2020) and the present study Hao et al., (2018) use slightly different prompts to elicit data from the children which was considered important to inform this study. In their study, Hao et al., (2018) recruited their group of children from a larger pool previously recruited for another study. "For this study, 18 children (age range: 4;3–7;11) met all three criteria and were categorized as having LI. For each child in the group with LI, a TD child was selected who was within 5 months of age as a match (age range: 4;3–7;9). In addition to age, an effort was made to match the group with LI and the TD group on primary caregivers' education and children's nonverbal IQ scores. Once the

recruitment exercise was completed the elicitation process done on the children. Three stories were depicted on three wordless picture series. Each story had at least two characters, a complication in the events that encouraged talk of problems and resolutions, visual presentation of characters' emotions, and depiction of multiple actions. An examiner presented pictures to the children one by one in sequence. After viewing all pictures, the examiner asked the children to tell the story with pictorial support. That is, the children had to generate stories with the support of the pictures. If a child did not follow the sequence in which the pictures were presented, the examiner corrected the child and required the child to follow the sequence. All the stories were video-recorded and later transcribed into Chinese characters" (p.350). It should be noted that generating stories is a difficult process for typically developing children and even a harder task for the children with language development disorders, however, it is a true depiction of the children's language production abilities and more authentic than retelling a story.

The comparisons of the narrative abilities of the two groups of children in Hao et al., (2018) study were done. "Based on previous narrative studies in children with LI, comparisons were conducted in three components: macrostructure, general microstructure, and fine-grained microstructure. Macrostructure measures were sensitive to the presence of LI in Mandarin, as indicated by macrostructure total scores and performance on five of the seven individual macrostructure elements. The macrostructure element plan was rarely used by children, both with LI and TD which suggests that the plan is a higher level macrostructure element acquired late by children. Mandarin-speaking children with LI showed significant deficits in the production of internal responses but not statistically significant. Therefore, that means that macrostructure, differences between the two groups existed in the descriptions of characters, settings, internal responses, complete action series, and consequences. While Mandarin syntactic complexity (i.e., MLU and usage of complex sentences) and lexical diversity (i.e., NDW) were sensitive to the presence of LI, productivity measures (i.e., TNU and TNW) were not. Even though children with LI produced a similar number of sentences and words as their TD peers, their production included less-complex sentences and less-diverse vocabulary. Regarding general microstructure, the group with LI demonstrated shorter MLU, lower NDW, and lower usage of complex sentences than the TD group. Mandarin-speaking children with LI did not produce more ungrammatical sentences than their TD peers in a narrative setting. For the fine-grained microstructure, children with LI showed lower usage of passive "bei" structure, classifiers, and perfective aspect markers.

However, the lower usage of perfective aspect markers reflects true deficits in Mandarin speaking children with LI" (Hao et al. 2018, p. 355-356).

In sum, the study above showed similar performance in narrative production of the two groups (LI and TD Mandarin-speaking school going children) on the basis of grammatical and productivity measures. However, the children also demonstrated their inabilities in some narrative production such as syntactic complexity, macrostructural elements, lexical diversity and specific Mandarin microstructural elements. The findings from this study are very important in informing this study since it also used number of words, macrostructural elements in the analysis stage of the research.

It should be noted that "oral narratives are emerging as a naturalistic method for investigating children's linguistic and cognitive development due to the numerous advantages they offer. Story narration exposes children to a distinct form of language that is holistic, rich, complex, and omnipresent in everyday social, educational, and recreational contexts" (Bloch, 1999, p. 41). Clearly, there are many studies investigating oral narratives however, very few studies have investigated written narrative skills in children, adolescents and adults in both indigenous and non-indigenous languages. It is for this reason that this study has utilized both oral and written narratives to investigate the narrative skills of young children, adolescents and adults so that the dearth in narrative research in oral and written skills is closed.

2.1.6 Narrative Differences due to Contextual Support

Narrative performance can be greatly influenced by the differences in context and the procedures that are employed to draw out data for the study. Park (2014) argues that the form of the task can influence children's narrative performance. Park (2014) states that story generation tasks usually demand children to narrate a story about real personal life experiences or about a single picture. This kind of story recounts has been considered an excellent reflection of the natural form of discourse and representative of spontaneous communication ability at a discourse level due to the nature of the task. Conversely, story generation tasks are more challenging for children since there is no external assistance to give support when producing narratives. Furthermore, story generation tasks have the shortcoming in that a child can fail to produce a complete story due to lack of motivation. Hudson & Shapiro (1991) state that once the child lacks the motivation to

produce a narrative with various story components, this may reflect badly on the child's narrative skills.

Though there are many challenges in stimuli-based research, but the challenges do not outweigh the good that comes with the proper use of stimuli in research. Hellwig (2019) in his detailed report on the role of stimuli in research argues that there are a lot of good reasons for using stimuli in research. Hellwig (2019) state that "stimuli-based research allows for control (i.e., to delimit the field and to systematically manipulate the parameters of interest). But different from elicitation, it takes steps to minimize the linguistic self-awareness of the speaker by providing a context (in the form of the stimulus, often in visual form). That is, speakers give their response based on a specific context (which is known to both the speaker and the researcher), and they do not have to imagine a context. This procedure in turn reduces the risk of misunderstanding inherent to all forms of elicitation. At the same time, this focus on responding to a given context distracts attention away from the linguistic structure, thereby eliciting more spontaneous responses and less prescriptive language use. Stimuli furthermore generate a large number of relevant expressions – i.e., they generate enough data points to investigate even low frequency phenomena. And they usually allow room for follow-up discussions with speakers, including discussions about expressions that cannot be used in a given context" (p. 18). These strong points of using stimuli in this study were considered and adopted to help with the generalizability of this study as rightly pointed out by Hellwig (2019) in his conclusion on the advantages of stimuli-based research outcomes. "stimuli-based research is set to play a major role: at least for specific domains, it is possible to ensure generalizability – to collect comparable data from a larger sample of the population, detecting variation within a language, and, conversely, allowing for more robust generalizations of language-specific patterns. At the same time, results can be compared across dialects and languages, forming the basis for statements about cross-linguistic patterns" (p.19). It must be stressed that generalizability can only be achieved through using corpus of natural data. It is worth noting that this review on what stimuli is best to give authentic narratives that could be useful to inform a study has been very useful in helping to make a decision on what stimuli was best for this study and why, hence the use of a visual stimulus for this study.

Furthermore, in the analysis of narratives "the methods used to elicit stories for complexity analysis vary in the literature and variation in parameters such as the tasks and stimuli used, as

well as the inclusion of comprehension questions influence story complexity. Tasks from past studies of narrative complexity have included fictional story retell and generation tasks as well as personal/autobiographical story generation tasks. It is worth noting that children with and without a language disorder are more likely to tell more complex stories in story retell than story generation tasks" (Merritt & Liles, 1989, p. 432). On the same vein, Petersen and Spencer (2012, p. 123) submit "that story retells assess story comprehension as well as story production whilst story generations not only assess story production but the ability to create a story". Evidence indicates "that school-age children with language impairment may be more successful in producing personal stories than fictional which the authors attribute to a higher frequency of personal stories over fictional in spontaneous speech" (McCabe, Bliss, Barra, & Bennett, 2008, p.197).

Studies that show contextual support to a particular method of data elicitation have been scarce, yet such information could be helpful in explaining how the differences in children's performance are supported by the manner in which the data is elicited. For example, Gutiérrez-Clellen and Quinn (1993), in their comparison of data elicitation procedure, confirm the fact that the contextual support given by the method of eliciting data can bring about differences in the children's performances. However, this finding by Gutiérrez-Clellen and Quinn (1993) is not conclusive since a recent study by Makinen et al., (2020) has not shown significant differences in children's narrative performances when using a picture based story telling ability. In their study of "children from Finland, Italy, and Canada – all belonging to a Western storytelling tradition, their results suggest that the developmental trajectory is similar in the investigated languages with the only exception being Italian children's productivity: Italian children were quite talkative already at the age of four and therefore their narrative productivity did not increase, in contrast to what was observed with Finnish and Canadian children" (p. 407). However, this finding by Makinen et al., (2020) cannot be conclusive due to the fact that they did not have similar language abilities of the children across the languages. Moreover, they did not have the accurate information in economic status of the parents and level of education of the care givers. Therefore, such crucial variables might have had some influence on the outcomes. Nevertheless, in conclusion Makinen et al., (2020) warned therefore that, "when assessing children's narrative skills it should be kept in mind that in the earlier phase of development, different narrative characteristics may be seen in different languages, which should not be considered as a lack of competence" (p. 407) because this eventually evens out as the children develop. In the same vein Gutiérrez-Clellen and Quinn

(1993) warn researchers to be wary of the fact that the process of contextualising narratives is specific to a particular culture and this must be put into consideration when assessing the narratives. This is the reason why in this study the stimulus used was manipulated properly to balance out any cultural differences.

In another study carried out by Huh and Lee (2018) of 32 high school students who were Korean natives studying English as a foreign language in Seoul. The students were all females and, in the ages, ranging from 16 and 17 years in their second year of a three year programme of English as a foreign language High school. The students had been rated as above intermediate in English language proficiency and also confirmed by their end of first year results. The students were divided into two groups of sixteen students each. “Students constructed a story based on a series of sixteen pictures. The pictures were adopted from a tale of a peddler, Caps for Sale. The pictures served as writing prompt. Students were provided with writing tasks that had cognitive task complexity manipulated in the writing prompt, in other words, the format of writing prompts would impose different information processing demands on the students. Task A and Task B were randomly assigned to the students so that effects may be attributed to task complexity alone. As for Task A, only pictures were given what we call a bare prompt (Kroll and Reid, 1994). For Task B, were presented with pictures in the so-called framed prompt, in which there was a prescribed opening (Once there was a peddler who sold caps.) and closing statements (And slowly, slowly, he walked back to town calling, “Caps! Caps for sale! Fifty cents a cap!”)”. (p. 62). Task A was assumed to be cognitively demanding when compared to Task B because in Task A the student had to think on-line from stretch the kind of narrative to produce based on 16 pictures only while Task B had an opening and a closing that sort of gave the learners a frame on what to write about.

The results on the above study by Huh and Lee (2018) indicate that “the students in both groups revealed similar writing quality, regardless of the type of prompts. Furthermore, there were no statistical differences found between groups with regard to syntactic complexity, lexical diversity, lexical density, cohesion, and fluency. However, the results revealed only significant differences between the two groups in terms of lexical sophistication. The students in the bare prompt group used more words from the first 1000 word range (the most frequent 1000 words of English) than the students in the framed prompt group. Compared to the students in the framed prompt, the students in the bare prompt seemed to use more frequent vocabulary in their narratives.

The students in the framed prompt group included more words from the second 1000 most frequent words than those in the bare prompt group. On average, 15.03 percentage of their narrative consists of vocabulary from the wordlist 2 range (the 2nd 1000 most frequent words of English). Different from the students in the bare prompt group, the students in the framed prompt group included more words from the less frequent vocabulary range" (p. 66).This finding actually goes to say that using contextual support (a stimulus) can bring about a difference in the narrative performance from different stimuli and that this should not be a point of worry but instead it should be expected and not a sign of incompetence on the participants.

Another study that also discusses the differences based on the type of support in narrative production was conducted by Kuvač Kraljević, Hržica and Vdović Gorup (2020). In their study conducted "with the Croatian version of MAIN and compared the story structure in the narratives generated by 20 typically developing monolingual children with those of 20 monolingual children with developmental language disorder (DLD). Children, whose age ranged from 5;6 to 7;6, were asked to produce two narratives, one elicited by a sequence of six pictures ("telling" – either Baby Goats of Baby Birds) and the other elicited by an oral model of the story and the sequence of six pictures ("retelling" – either Cat or Dog). In their findings the typically-developing children performed significantly better than their counterparts with language disorder on the MAIN story structure in both narrative tasks. The typically-developing children performed similarly when telling and retelling, while those with developmental language disorder were significantly better at retelling than telling. The Croatian version of MAIN is not a direct translation of the English instrument but an adaptation in the true sense of the word, because it tries to take into consideration the linguistic properties of instructions, story scripts, questions, and answers" (p. 640). And by so doing MAIN has shown to be "effective and sensitive in distinguishing children with developmental language disorder form children with typical language development" (Tsimpli et al., 2016 p. 200). "It has also proven powerful for gaining linguistic and cognitive insights into narrative ability in English and in other languages by enabling analyses on microstructure and macrostructure (Lindgren 2019, p. 420). Therefore, the use of contextual support proves to be very helpful in many respects such as informing researchers of the varying performances in the narrative productions in different cultures and languages.

A study by Gazella and Stockman (2003) of twenty-nine Caucasian male pre-schoolers attempted to determine if the two contexts of story presentation by using only audio or by combining listening and visible presentation, had any differences in the quantity of talk, sentence complexity and lexical diversity as conveyed in the narrative productions by the children. The result was that there were no significant variances between the audio-only group and the audio-plus-visual group in the lexical diversity or syntactic complexity of sentences and amount of talk produced in the narratives. However, the audio-visual presentation of the narration task generated the utterances that were complete and grammatically correct, and the longest utterances compared to audio-only tasks. Therefore, this finding is in total agreement with the attribution of differing performances in children's narration as a result of contextual support during the data elicitation process.

Furthermore, in support of contextual support in narrative production one study conducted by Kormos and Trebits (2012) on Hungarian learners of English as a foreign language, points out that "the picture narration task in writing elicited syntactically more complex language, as assessed by clause length and the ratio of relative clauses, than the cartoon description task. Based on our results concerning syntactic complexity in different types of tasks in the two modes of performance, we can hypothesize that in writing, where the resource dispersing dimension of task complexity might play a different role, the picture narration task, which requires students to conceptualize their own stories, has the potential to direct students' attention to syntactic complexity. In the oral version of this task, however, the demand that students need to conceptualize and linguistically encode their narrative at the same time acts as a resource dispersion factor, and students do not seem to have sufficient attentional resources for producing syntactically complex language" (p. 469). However, Kormos and Trebits (2012) findings are contrary to the findings of Kuiken and Vedder (2008), whose results in their written narratives indicated that there was no influence of task complexity. However, it should be noted that Kuiken and Vedder (2008) in their assessment of syntactic complexity they used only a subordination ratio which might have led to this contrary finding.

Furthermore, the results of the study carried out by Kormos and Trebits (2012) indicate that "task type was also found to have an effect on one specific aspect of accuracy and on lexical variety in the oral mode. On the one hand, the cartoon description task seems to have pushed

students to use more varied vocabulary in order to be able to express the predetermined storyline depicted in the cartoon. At the same time students' accuracy in verb forms decreased in this task, which might seem to indicate a trade-off effect between lexical and grammatical encoding in the linguistic formulation phase of speech production. On the other hand, in the picture narration task, the students could conceptualize the story line taking their own linguistic resources into account and might have used vocabulary which was easily accessible from their mental lexicon. Consequently, they might have had more attention available for the accurate linguistic encoding of verbs". The findings "might also indicate that task type effects manifest themselves differently in speech than in writing. In speech not only do learners need to divide their attention between conceptualization and linguistic encoding, but they also need to carry out linguistic encoding processes under time-pressure, which requires that they share attentional resources during lexical and syntactic encoding. In the oral version of the cartoon description task students' attention might have been drawn to lexical encoding, and hence, they might have had less attention available for syntactic encoding. In writing, however, syntactic and lexical encoding do not need to be carried out in parallel, which might result in improved accuracy in general and in the use of verb forms in particular in the written cartoon description task." (p. 470). This result actually goes a long way to indicate that cartoon (short film) was not completely putting students in a disadvantage but it was also good on its own and can still be used in eliciting excellent data.

Gibbons, Anderson, Smith, Field and Fisher (1986) advanced that the use of a short film by both children and adults produced more utterances than a book recall. In the same vein, Iglesias, Gutiérrez-Clellen and Marcano (1986) posited that film retellings were capable of being longer and more complex compared to personal narratives. Furthermore, Gibbons et al. (1986) postulate that books or picture sequences generated more descriptive information and produced narrative stories that were progressively more complicated than personal narratives. However, static or single pictures were not ideal at drawing information since it was limiting to the listener (Griffith, Ripich & Dastoli, 1986).

Studies reveal that the quantity of assistance given by the method of collecting data and the previous familiarity with a particular topic will have an influence on the density of narratives generated by the children. As such, one kind of elicitation method may be the best context for a particular narration. Accordingly, this study will utilise an alternative form of narrative assessment

using story narrations elicited by using a short film/cartoon entitled "The Boy who Learned to Fly, Usain Bolt" (Limbert & Jake, 2016) instead of the story retelling task. There are several advantages of using story telling or recounts. The first is that it allows for creativity in the narration thereby encouraging complex language production. Moreover, in story narration, the content and structure of the story is familiar to the examiner, thus making it easier to recount and also more reliable to use.

In a concluding statement on the role of stimuli in research Hellwig (2019) states that "when we design our stimuli, we should keep this goal in mind: our collective aim as a discipline should be to develop stimuli that can be used in comparing languages, address the issue of generalizability, and provide a framework that helps individual researchers to collect data that feed into our typologies. This will enable us to harness the linguistic diversity of this world to advance our understanding of human language and cognition" (p. 24). This will in turn give a chance for the under studied languages such as siSwati to take the front stage in the research field by using stimuli that will effectively address this different typological language and not allow the western languages to dominate yet they are already well studied.

2.1.7 Cross-linguistic/Cross-cultural Variation in Narrative Production

Among different languages, stylistic and cultural differences have been found in the information children decide to include in their narratives. Usually, macro-structure elements that could possibly be included in stories are essentially the same across different languages and cultural groups (Berman & Slobin, 1994; McCabe & Bliss, 2003; Stromqvist & Verhoeven, 2004). Makinen et al., (2020) on the subject of cross-cultural narrative production states that "narrative tasks have been utilized in cross-cultural and cross-linguistic studies. Some studies have reported differences in narrative style across languages, which appear to be related to microstructural aspects of narratives. Cross-linguistic studies have found that language ability has an effect on narrative microstructure measures" (p. 396). Conversely, "microstructure may significantly be affected by the language in which the story is being told as a result of differences in the cross-linguistic use of literate language" (Berman & Slobin, 1994, p.35). The fact that microstructure can be affected by the narrator's language is shared by numerous studies. For instance the effects on narrative microstructure is noted on referencing (Hickmann & Hendriks, 1999; Kang, 2004), use of connectives and conjunctions (Colletta et al., 2015; Squires et al., 2014), clausal structures

(Berman & Slobin, 1994) and tense marking (Berman & Slobin, 1994; Minami, 2011). Makinen et al., (2020) further argue that studies conducted on bilingual children indicates that indeed macrostructure is similar in their two languages save for microstructure level. Makinen et al., (2020) give relevant studies that have investigated bilingual narratives such as (Bohnacker, 2016; Kunnari, Välimaa, & Laukkanen-Nevala, 2016; Minami, 2008) of which these studies came to the same conclusion that their bilinguals had similar narrative macroanalysis save for the microanalysis. Furthermore, "bilingual children can transfer their knowledge from one language to the other, because the macrostructure is similar across languages" (Squires et al., 2014, p. 64). It should be noted that there are studies postulated that had contrary findings to those mentioned above in relation to macrostructure being similar in all languages. Lindgren (2018) in the study of Swedish-German speaking bilingual children found that they had advanced macrostructure skills in Swedish when compared to German. These findings are also shared by Rezzonico et al. (2016) in his study of Cantonese English-speaking bilingual children. Rezzonico et al., (2016) found that the children's English macrostructural abilities were more developed than their Cantonese macrostructure skills. This better abilities in their macrostructure was attested to by their slightly elevated story grammar scores in English compared to Cantonese. However, Makinen et al., (2020) states that "the cultural background might influence overall storytelling and communication styles and that people use communicative and expressive means that are typical to their culture" (p.297).

Another interesting study on cross-linguistic variation in narratives was conducted by Kunene Nicolas, Guidetti and Colletta (2017) on the development of gesture and speech in Zulu and French oral narratives. However, for the purposes of this study the focus will be on the speech aspect and not gesture. Kunene et al., (2017) in their study "seventy-two mother-tongue Zulu- and French-speaking children aged five and ten years old and adults participated: thirty-six Zulu and thirty-six French speakers. There was an equal gender split. The child participants were selected from the school grades corresponding to their age, and all the adults were university students who volunteered to participate in the study. The participants watched a video extract (2 minutes and 47 seconds) of a wordless cartoon taken from the series Tom & Jerry. They individually watched this same video twice and were then instructed to tell the story to the interviewer and were recorded on video. To determine the informational quantity of the narrative, the speech stream was segmented into different linguistic units, such as speech turns, clauses, words, syntactic structures, and macro-structural episodes of the narrative event, to measure discursive ability" (p. 43-45).

Kunene Nicolas, Guidetti, and Colletta (2017, p. 47-52) in their results found that "adult Zulu speakers tended to narrate longer stories compared to the French-speaking counterparts whose narrative productions were shorter and more synthesized. The simple explanation for the longer narratives for the Zulu-speakers is the influence coming from a culture with a strong oral storytelling tradition than French-speaking adults." However, it should be noted that the non-narrative pragmatic clauses (which encompasses the speech acts of explanation, interpretation and commentary) of the French-speaking adults were higher than those of the Zulu-speaking participants, which might also be thought to have a strong bearing on the expressive culture of the French. These results go a long way in explaining that there are cross-linguistic variations in narrative macrostructure depending on the influence of the culture the participants were coming from.

Therefore, in order to evaluate narratives in bilingual children effectively, assessments have to take into consideration cross-linguistic differences between the L1 and L2 (Gutiérrez-Clellen, 2002). Cross-linguistic studies have shown similar findings in the narrative production. This is evident in the studies that have looked at elicitations of narratives by Hebrew, English, Spanish, German, and Turkish speaking adults and young children, using a similar picture book without any words (Berman & Slobin, 1994). The comparisons in the work of Berman and Slobin (1994) indicate that the main dissimilarities in the structure of narratives was age-related and not cross-linguistic, while the cross-linguistic variances were connected to linguistic form differences. This, therefore, entails that the story-tellers told similar stories across languages but the difference rested in the linguistic route they took (in their respective languages) to achieve the same goal. As a result, the language of storytelling may have an effect on the microstructure of a story while the narrative macro-structure can be significantly influenced by culture (Fiestas, 2008). Since language is the mode through which a story is told, linguistic differences and language-specific rhetoric will play a major part to influence the way a story is narrated.

A clear instance of cross-linguistic variances is observed in Berman and Slobin's (1994) analysis of Spanish and English narratives. The cross-linguistic difference is shown in the way that the English and Spanish children narrators articulate the morphological formation of verbs and handling of tenses, morphological formation of verbs and tense, and determining information that is temporal, abstract and to the way they rely on the ellipsis of the subject. It is worth mentioning

that although children's global narrative structure appeared similar in all languages (Berman & Slobin, 1994; Stromqvist & Verhoeven, 2004), children's use of linguistic structures and rhetorical forms may differ across languages, which reveals the role of language and culture on narrative structure. Similar development of narratives in all languages is proof of a universal structure of discourse that may develop in children for narrating stories that are not influenced or dependent on a language. Furthermore, the variances in narrative structure models might impact on the organisational structure of the narrative production of the children. In an analysis of Cantonese and English narratives of four and five-year-old pre-schoolers by Rezonnica et al. (2016), results indicated greater scores in story grammar in English compared to Cantonese for the older pre-schoolers. This connection of resources amongst the two languages validates the notion that transfer effects or influences in macro-structure are very high. Furthermore, in this study, there was an indication that narrative discourse performance improved with age.

In a newer study conducted by Lucero (2018) on Spanish-English dual Language Learners longitudinally, starting from kindergarten to second grade in Spanish and English shows a contrary finding to the usual norm of macrostructure being similar across languages save for microstructure. "In this study, exploratory analyses of bilingual oral narrative development were conducted with a group of Spanish-speaking children over the first 3 years of participation in a dual language immersion (DLI) school. The participants were 12 children who spoke Spanish at home and attended a Spanish–English DLI program. Literacy instruction was conducted in both Spanish and English at all grades. At both time points, assessments were conducted in both languages, first in Spanish and then in English approximately a week later. Children heard one wordless picture book in each language—Frog, where are you? (Mayer, 1969) and Frog goes to dinner (Mayer, 1974). Each child heard the same book in the same language at both time points to allow for longitudinal comparison. After listening to the story read by the assessor the children were asked to begin the retell. Narratives were transcribed and coded" (Lucero, 2018, p. 612)

Disfluencies such as fillers, reformulation etc., were not counted as forming part of the narrative measures. According to Lucero (2018), at the microstructural level "transcripts were segmented into C-units which includes a main clause and any subordinate clauses. Vocabulary was measured in two ways: TNW and NDW (Miller et al., 2006). Grammatical complexity was also measured in two ways: mean length of utterance at the word level (MLUw) and subordination

index (SI). Macrostructure was assessed using the narrative scoring scheme (NSS; Heilmann, Miller, Nockerts, et al., 2010), a tool that provides an overall assessment of a child's ability to produce a coherent, sequential, and detailed narrative. It consists of seven elements (introduction, character development, mental states, referencing, conflict resolution, cohesion, conclusion). The results for the study were that children did not perform significantly better in either language at either time point on any of the microstructure components (TNW & NDW). In terms of grammar, there were no significant differences between performance at kindergarten and second grade in either measure (MLUw or SI) in either language, suggesting that children produced utterances of comparable length and grammatical complexity at the two assessment time points. In Spanish, participants showed no significant improvement on overall NSS and only scored significantly higher on the element of conclusion. At the macrolevel, overall NSS scores improved significantly between kindergarten and second grade in English. Specifically, English performance on character development, referencing, conflict resolution, and cohesion was significantly higher at second grade than at kindergarten, whereas in Spanish 'conclusion' was the only element on which children scored significantly higher at second grade" (p. 613-617). This study indeed shows a different result in macrostructure between the two languages Spanish and English and this necessitated for this study to undertake an investigation into the macrostructure of English and siSwati as yet another study conducted by Kunene Nicolas et al., (2017) had indicated the macrostructural difference.

Mandler, Scribner, Cole and DeForest (1980) conducted a study on recall tasks in Liberia. Children and adults of different levels of education were compared to similar groups of American children and adults. The results indicated that there was a considerable degree of similarity in the recall patterns. All groups recalled settings, beginnings, attempts, and outcomes better than reactions and endings. Liberian and American children displayed a lower level of recall, but the patterns were the same. Also, there was an improvement in performance from childhood to adulthood. This, therefore, means that certain similar forms of storytelling often occur in different cultures around the world.

Stein (2004) conducted a study on 7-year old children using fictional narratives from two separate cultures, one from Bhutan and the other one from the United States of America. In her findings she reported that "the frequency of story grammar elements and the story structure level

were similar between the groups, even though the Bhutanese and American storytelling cultures are remarkably different in terms of style and content. However, there were some qualitative differences that could not be measured through story grammar analysis. For example, Bhutanese children included more characters in their stories and these secondary characters had important role in the story, whereas American children's stories were more centered on a main character" (p. 384). It is clear that this was a small sample however, from these findings it shows that cultural influences had a great role to play in the organization of the family and society traditions of the two samples. Kunene Nicolas et al., (2017) in their developmental and cross-linguistic study of oral narratives produced by speakers of Zulu (a Bantu language) and French primary school children and adults, found that there was a strong effect of age on discourse performance, validating that narrative ability improves with age, regardless of language.

However, in a study by Hipfner-Boucher et al. (2015), a discrepancy was noted, which has brought a change in the manner bilingual typically developing children are viewed. It has been discussed in various studies (Berman & Slobin, 1994; Fiestas & Peña, 2004; Pearson, 2002; Uccelli & Páez, 2007) that the narrative macro-structure produced by bilingual typically developing children is the same across their two languages and similar to the narrative information produced by their monolingual peers. However, bilinguals scored lower than monolingual peers in terms of narrative microstructure measures. Hipfner-Boucher et al.'s (2015) findings did not observe differences between monolingual and bilingual children in both macro-structure and microstructure measures. This inconsistency shows that there is still extensive research to be done with bilingual narrative development and the interaction of the two languages of the child in order to have a complete understanding.

Not long ago, researchers (such as Miller et al., 2006; Miller, Iglesias & Nockerts 2008; Uccelli & Páez, 2007) started to create standards for the development of normal narrative patterns for the bilingual young children. However, there is inadequate information to satisfactorily describe the development of bilingual narrative productions of a less-studied population, such as the English-Swazi bilingual (children and adults) in a second language setting with variant exposures to the second language.

2.1.8 Oral and Written Narratives of Bilingual Learners

Research on narrative productions of bilinguals show that the language that is used to narrate a story with has a major influence on what is made prominent in a story, and also how that story is narrated (Bedore et al., 2006; Fiestas & Peña, 2004). In the same vein, Gutiérrez-Clellen (2002) posits that bilinguals' narrative production may highlight different components in a story depending on the language of proficiency. Narrative productions of bilingual children offer the researcher a chance to study the many systems of language production involved in story narration (Fiestas, 2008). Research on typically developing bilingual children has been conducted in which researchers would elicit oral and written narratives from bilingual learners using both of their languages.

Uccelli and Páez (2007) conducted a study of oral narrative discourse skills and the development of vocabulary of 24 Spanish/English children in preschool and grade 1 longitudinally. The outcome of the study was that there was no difference in the number of different words and the number of words (productivity) or linguistic and story structure measures in either language. However, the results presented slightly higher story structure scores in English as opposed to Spanish. It should be noted that all children as part of their school curriculum were taught English language and literacy and only a few were instructed in Spanish, since they were in an English-Spanish programme.

Fiestas and Peña (2004) compared bilingual oral narrative productions of 12 Spanish/English children aged between four and six years. The results of the study revealed that on the whole there were differences in the story grammar scores of the two narratives. Furthermore, there were no differences found between Spanish and English narratives in the total number of words, the total number of utterance units, the length of utterance units, or the number of well-formed utterances (Fiestas & Peña 2004).

Fiestas et al. (2005) conducted a study on narrative maze production. Mazes are words which do not add meaning to what is being communicated such as *um, uh, I see*, that are commonly used by individuals in their speech, especially if the idea is abstract or the language used is not fully developed. They investigated a bilingual situation consisting of 30 Spanish-English bilingual children, aged between four and seven years, and chosen from a pool of 72 children. Using a

wordless picture book, the results revealed that there was no statistically significant difference as a whole on the corrections and repairs of the bilingual and the monolingual children's narratives. However, there was a higher frequency of repetitions in bilinguals and more grammatical revisions in Spanish than when telling the story in English.

In another study Gutiérrez-Clellen (2002) looked at the narrative performance of 33 bilinguals children developing normally between seven and eight-years-old in both Spanish (L1) and English (L2), using story recall and story comprehension tasks. The bilingual children produced oral narratives with well-formed utterances in both languages when narrating spontaneous stories using picture books without any written words. Conversely, the analysis of the story re-telling task and story comprehension task exhibited higher ratings in English compared to Spanish.

Pearson (2002) investigated the narrative skills of monolingual and bilingual language learners using a comparative study of 240 children taken from a large study of 952 English monolingual and Spanish-English bilingual language learners in grade 2 and grade 5 (Pearson, 2002). A wordless picture book was used to elicit oral narratives and the results indicated that the monolingual (English) grade 2 children received higher scores, for complex syntax, morphosyntactic accuracy (language scores), but these differences wane by grade 5. Moreover, English narratives of bilinguals received higher language scores than the Spanish ones (Pearson, 2002).

From the studies recounted it is apparent that there is much research conducted on bilingual children predominantly in English/Spanish languages, in both home and school environments. The results generally indicate that bilingual language learning does not inhibit the development of narrative skills in both languages.

As discussed earlier there have been very few studies of written narratives let alone of bilingual written narratives, consequently this study will draw from research done on dual language learners (Genesee et al., 2006), second language learners and foreign language learners.

There was a study done by Kormos and Trebits (2012) on student in a second language context in the ages between 15 and 18 in Budapest, Hungary at a Hungarian-English bilingual secondary school on oral and written narrative production. There were 44 participants of this study

consisting of 27 girls and 17 boys in the second year of the four-year secondary programme. The participants had to do four narrative tasks in all. In the first instance they produced two narratives orally describing the cartoon and also the picture task. A month later the students were required to narrate in writing the cartoon description and the picture story. The findings reveal that "in writing the participants were more accurate and used more varied vocabulary than in speech, but their performance was similar in terms of syntactic complexity. The effect of task type on performance differed in the two modes. In speech students used fewer correct verb forms and more varied vocabulary in the cartoon description task than in the picture narration task. In writing, however, the picture narration task elicited syntactically more complex language than the cartoon description task. The results seem to lend support to Robinson's (2001, 2003, 2005) Cognition Hypothesis because in writing, where the resource-dispersing demands of tasks are reduced, the task that required complex cognitive planning at the level of conceptualization had the potential to direct learners' attention to syntactically more complex language" (p. 469).

In another study conducted by Sun and Yang (2011) on the discourse patterns in Chinese EFL learners' oral and written narratives, 30 written narrative compositions were analysed. These written narratives were produced by 30 second year students ranging from 20 to 22 years of age at Yangzhou University. These students had all majored in English and had all, on average, studied English for ten years. The results of the study indicate that in spite of the schematic similarities in discourse structures, a significant occurrence of differences exists in structural constructs of EFL learners' discourse between oral and written narratives. There is a difference in the micro-structural components (this entails productivity measures such as words, number of utterances, lexical diversity etc.) of topic manifestation and ending with the oral narrative which differs from the written narratives.

Bel et al. (2010) investigated the referential properties of null and overt subject pronouns (pronominal anaphora) in Catalan of 30 spoken and 30 written narratives. The texts were produced by 30 Catalan (L1) - Spanish (L2) bilingual subjects, who were divided into three groups of speakers/writers (9–10, 12–13, and 15–16-year-olds). The texts were elicited using a three-minute wordless film showing scenes of interpersonal conflicts at school. The results revealed that there were no significant differences between written and spoken texts in the features under study. However, the part played by modality becomes significant when put together with age, hence

writing (particularly in the case of overt pronouns) is cognitively demanding for young children since writing requires spelling that needs a considerable load of cognitive resources (Bel et al.' 2010).

Tanno (2010) investigated how characters' mental states and speech are represented in personal stories narrated by English-speaking college students taking 2nd, 3rd and 4th year Japanese. The corpus consisted of 32 written narratives collected from learners and native speakers of Japanese and 40 hours of oral interviews from 32 learners and native speakers. The results indicate that the amount of mental representation increased considerably from the 2nd to 4th-year level (Tanno, 2010). The production rates of speech tasks of the 3rd and 4th-year students were similar to the written narrative production of the native speakers. Conversely, the learners' production rates in oral narratives was very low compared to the rate of the native speakers, emphasising the significance of the use of reported speech in oral personal narratives in Japanese and the challenge of producing reported speech in oral narrative discourse for English-speaking learners (Tanno, 2010).

Children developing normally and learning two languages seems to have moderately little effect on the production of narrative skills. It is reported in some studies that there were similarities in the children's productive narrative skills in their two languages (Fiestas & Peña, 2004; Gutiérrez-Clellen, 2002). However, findings are sometimes contradictory when one compares narrative skills of monolingual and dual language learners. While Lofranco et al. (2006) discovered that the narrative abilities of dual language learners were similar to those of monolinguals, Pearson (2002) found that the dual language learners were weak in language form skills compared to monolinguals, but this improved as the age advanced.

Language learners may show variances in their production of narrative tasks in the two languages because they are still in the process of improving the development of the two languages (Gutiérrez-Clellen, 2002; Miller, 2014). Nonetheless, the narrative is the most favoured form of human communication and a vital skill in storytelling thus necessary in second language acquisition (Tanno, 2010). Yet, regardless of the usefulness of narrative production samples, there continues to be a dearth of research information considering the capabilities in the production of narratives by the bilingual populations (Fiestas & Peña, 2004) in both the oral and written modes. Moreover, there is an acute need for more research information on other less popular language

combinations such as English and siSwati, especially because of the growing cultural and linguistic diversity in the world and also on information concerning narrative skills of bilinguals in both their languages. Hence this study has made an effort to compare the written and oral productions of narratives of the two less-studied languages, English and siSwati.

2.1.9 Bilingual Cognitive Load

It is important to note that language learning is a difficult task and that this task becomes even more challenging if the language learning is done beyond one language, in which case the language is learnt in bilingual or multilingual situations. Children in bilingual situations are confronted by many challenges than when learning a language in situations where there is a single language (Costa & Sebastian-Galles, 2014; Byers-Heinlein & Fennell, 2014). Children learning languages in bilingual environments battle with the challenge of learning the language in a situation that could have corresponding or contradictory equivalences that they would have to straighten out before learning that language (Antovich & Graf Estes, 2018). Furthermore, Antovich & Graf Estes (2018) argue that children in bilingual situations have insufficient chances of learning both languages well and even more concerning, they are sometimes compelled to comprehend the use of the two languages within the same utterance, compared to those in monolingual situations (Potter, Fourakis, Morin-Lessard, Byers-Heinlein & Lew-Williams, 2019). Having to comprehend the use of two languages in one utterance results in too much load on working memory which gets in the way of language learning or capability of individuals (Pravin, Kavitha, Geethanjali & Mahesh, 2014).

Pravin et al. (2014) on the Cognitive Load Theory (CLT) assert that "human memory comprises a very limited working memory and effectively an unlimited long – term memory. Organization of information processed plays an important role in learning and memory. Unorganized information needs high cognitive load while learning. Knowledge is perceived as schemas representing relationships among facts and concepts. The schemas define the load of the working memory since they allow many elements of knowledge to be treated as a single element in working memory compared to controlled, conscious processing that requires higher cognitive loads. For a learner to have a low cognitive load, the learning material must have been organized into structured schemas" (Pravin et al. 2014, p. 19). Pravin et al. (2014) and Greitzer (2002) further state that if the elements of knowledge in the material to be learned are not connected or function

separately this would induce a high cognitive load to the individual learning whatever concept. “Cognitive Informatics explains the importance of helping learners develop well connected knowledge structures. When the knowledge structure for a topic is large and well-connected, new information is more readily acquired and the richness of the connections facilitates information retrieval” (Pravin et al., 2014, p. 19).

It is worth noting that knowledge of the second language is built on the knowledge of the first language. “Human brain organizes and categorizes new information in terms of what it already knows. Cognitive load is the amount of load induced on the working memory by a cognitive process. A better understanding of the nature of human working memory helps in comprehending the differences in cognitive abilities of individuals and their success rate in their efforts to accomplish their objectives. People vary widely in their working memory capacity and the amount of information that can be accessed. The same task can affect different users in different ways, and can induce levels of perceived cognitive load that vary from one user to another. This is due to a number of reasons- level of domain or interface expertise of the user, their age, mental or physical impediments being some of them. The cognitive load experienced by users in completing a task has a major impact on their ability to learn from the task, and can severely impact their performance, high load detracting them from learning” (Pravin et al. (2014, p. 20). An individual’s cognitive capacity plays a very important part in the individual’s academic skills as it is the one that determines the individual’s cognitive load. It is therefore, “crucial to maintain the load experienced by people within an optimal range to achieve the highest productivity. When people are overloaded, their ability to learn and performance of completing the task will be negatively affected” (Pravin et al. (2014, p. 31) resulting in many negative outcomes. Pravin et al., (2014) further emphasize that for the working memory capacity not to be overloaded learning should shed some light and be clearly comprehended by the individual involved. “Effective learning demands proper understanding and interpretation without overloading the working memory capacity. This should be facilitated by suitable instructional measures to ensure optimal loading of working memory. Working memory is the process by which the brain sustains the neuronal activities, whose firing represents information derived either from brief sensory input or readout from long-term memory. Working memory is assumed to be a limited capacity system, which temporarily maintains and stores information, supports human thought processes by providing an interface between perception, long-term memory and action” (Pravin 2014, p. 31; Baddeley, 2003).

However, it is remarkable to note that the children from bilingual situations are able to be at the same level of language acquisition over time as the monolingual children in spite of the heavy cognitive load that they are sometimes subjected to, especially in the use of vocabulary (De Houwer, Bornstein & Putnick, 2014). Antovich and Graf Estes (2018) and Singh et al., (2015) on the other hand, assert that the children's early exposure to two languages cuts down the challenge placed on the cognitive load to handle more than one language thereby enhancing the ability of interpreting the information with ease. This is in agreement with what Bialystok, Craik, Klein, & Viswanathan (2004) say, that bilinguals have the advantage of cognitive executive functioning (which entails, cognitive processes that allow for the achievement of envisioned goals) .

However, in previous research, it was not clear what exactly brought about the ability of bilinguals to lower the cognitive load when processing two languages. It is interesting to note that Byers-Heinlein, Morin-Lessarda and Lew-Williams (2017) found part of the answer to how bilinguals managed to decrease the cognitive load when processing their two languages. They postulate that both bilingual infants and adults used language-control mechanisms in their cognitive ability to select specifically the language that they hear in real-time, hence the bilingual cognitive advantage across the lifespan (Bialystok et al., 2007; Moreno et al., 2010). Byers-Heinlein et al., (2017, p. 9032) argue that "bilingual infants have twice as much language to learn as monolinguals, yet their languages do not develop half as fast". The bilingual infants "learn words and sounds" (Byers-Heinlein, Fennell, 2014; De Houwer, Bornstein, De Coster, 2006) with remarkable ease in their two languages, and they reach the same level of language acquisition as the children learning one language (Werker, Byers-Heinlein, 2008). It is important to note that for the bilingual infants to learn their two languages they need to be able to control language acquisition (Byers-Heinlein, Burns, Werker, 2010; Genesee 1989). In the same note, Heinlein et al., (2017) states that "in adults, language-control mechanisms enable bilinguals to produce the intended language, as a result they tend to be slower when they move from speaking one language to the other language. The double-edged sword of language control helps speakers produce words in the intended language but results in processing cost when switching between languages" (p. 9032).

Byers-Heinlein e al., (2017) in their investigation of "the nature of bilinguals' language monitoring and control abilities across the lifespan. They designed an auditory language-switching

task that simulates real-world language comprehension and places minimal additional cognitive demands on infants and adults. In a simplified visual world paradigm, bilingual infants (Experiment 1) and adults (Experiment 2) saw pairs of familiar pictures (e.g., a dog and a book), and heard either a same-language ("Look! Find the dog!") or a switched-language sentence ("Look! Find the chien!") naming one of the objects. Whereas Experiments 1 and 2 used intrasentential language switches (switches that occurred within a single sentence), Exp. 3 used intersentential language switches (language switches that crossed a sentence boundary; "That one looks fun! Le chien!"). Both codeswitching is often heard by adults and children in a normal bilingual society. The experimental paradigm was identical for both infants and adults; both groups looked at two pictures and listened to simple sentences, which ensured that the task was comparably natural for both groups. They used two eye-tracking measures to assess real-time processing and cognitive load. First, we examined participants' fixation to the target object in the moments after they heard the object label. A processing cost would be evidenced by less looking to the target object on switched-language trials than on same-language trials. Second, we measured pupil dilation concurrently with eye gaze. Pupil diameter is an involuntary response that varies not only with changes in luminance, but also with processing effort, making it a marker of cognitive load" (Hepach, & Westermann, 2016; Byers-Heinlein et al., 2017, p. 9023; Beatty, 1982). In their hypotheses, "they expected that language switches would increase cognitive load, such that participants would have larger pupils after hearing a switched-language word than a same-language word" (Byers-Heinlein et al., 2017, p. 9033). The results validate that the bilinguals (both infant and adults) can simultaneously listen and also have the ability to control and watch over their two languages. Furthermore, the findings also confirmed that switching the languages does not always result in language difficulties for the bilingual.

On another note, now that a review on bilingual cognitive load has been examined there is a need to also discuss the subject of language and cognition. Once children have been able to monitor and control their language processing mechanisms, they are then able to display their language and cognitive skills in the production of narratives. Research (Whitehurst & Lonigan, 1998; Paris & Paris, 2003; Peterson, Jesso, & McCabe, 1999) states that the production of children's narratives is important in demonstrating their language and cognitive abilities since it is known that narratives have the schema for both oral and written productions. It is therefore important that in this study a review of studies on language and cognition be done so as to inform

this study. “The creation and comprehension of narratives involves the synchrony of several skills and knowledge bases, such as receptive language skills, meta-representational skills, perspective-taking skills, as well as the general knowledge of story structure” (Paris & Paris, 2003, p 21). Bruner (1986) state that for the children to display their knowledge satisfactorily of being able to listen to a stories and also be able to tell stories they should be able not only to narrate the story events but also be able to explain why a certain event happened. For a simultaneous experience of these skills it is important to discuss Bruner’s (1986) theory. With reference to Bruner’s (1986) theory, “the action landscape describes what has happened; the consciousness landscape offers explanation, justification or speculation as to why something happened. The action landscape only includes information about the events of the story, but the consciousness landscape includes information not only about events but also the interpretation of the protagonist’s thoughts, motives, internal states and social perspective. It is this psychological perspective that sheds light into the consciousness of the character. Theoretically, grasping the consciousness landscape is more difficult than the action landscape because it asks children to engage in social cognitive reasoning in which they must predict and/or explain the protagonist’s behaviour.” (p. 27). In the same vein on the issue of narratives and cognitive abilities, Smith et al., (2018, p. 41) state that “narratives are a pervasive form of discourse and a rich source for exploring a range of language and cognitive skills”. Smith et al., (2018) further argue that “constructing a narrative about an event removed in time involves complex decisions about elements to prioritize, how events should be ordered, what information to include, and how to linguistically encode that information so that a partner can understand how the characters relate to each other and participate in the events. Creating an interesting story rather than a report of facts involves inferences about the characters and consideration of audience needs. Pulling these threads together draws on cognitive and linguistic resources” (p. 42). In sum, Bruner’s (1986) theory of two landscapes emphasizes on the ability to use linguistic and cognitive perception to explain a character’s action in a story. This theory by Bruner (1986) is important for my study because it was able to inform the study since the participants in the study had to elicit the use of language in narrative production as well as the mental representational skills when producing the narratives.

Similarly, a study was conducted by Curenton (2011) on preschool children to investigate their ability to use social cognitive thinking in the production and comprehension of narratives using the stimulus of a picture book without words. “First, children were asked to produce an oral

story. The goal was to determine if there were age-related changes in children's ability to produce a grammatically complex narrative and make references to the protagonist's beliefs, emotions, motives and intentions (i.e. whether children created stories that addressed the consciousness landscape). Secondly, children's narrative comprehension was investigated by asking them follow-up comprehension questions after hearing a story based on the same book. In terms of narrative comprehension, the goal was to assess if children would demonstrate age-related changes in their ability to comprehend questions about the landscape of consciousness, which requires children to understand a character's motives and intentions. Thirdly, and final objective, was to assess whether children's narrative skills were related to their cognitive skills. In carrying out the study, seventy-two children (36 African American, 36 European American) from Head Start and other preschools serving low-income children took part in the study. Children were evenly divided into age groups: three-year-olds (M = 3 years 7 months, n = 24), four-year olds (M = 4 years 5 months, n = 24) and five-year-olds (M = 6 years 3 months, n = 24). There were equal numbers of African American and European American children in each age group, and there were 40 girls and 32 boys in the sample. Children were shown the wordless picture book, Frog, Where Are You?, by Mercer Mayer (1994). This book was chosen for the study because it has been used frequently in research to elicit children's fictional narratives, examining children's understanding of motives and goal-based behavior" (Bamberg, 1997; Curenton, 2004; Curenton, 2011, p. 795).

Once the transcriptions had been cleaned and all unnecessary materials had been removed and "only children's coherent, spontaneous remarks that were relevant to the story remained. Children's remaining utterances were divided into syntactic clauses called C-units (Loban, 1976). A C-unit is defined as an independent clause (i.e. a subject–verb proposition) and all of its modifiers. The final transcripts were analysed by CLAN (MacWhinney, 2000) to calculate the mean length of C-unit (MLCU) and number of C-units. The MLCU is the average number of words per C-unit, indicating the linguistic density of children's clauses. The number of C-units is the total number of clauses (viz., subject–verb propositions) produced by the child. After the children produced their story, the experimenter told them a story using the same book. The story included information about the protagonist's actions, desires and emotions. At the end of the story, the experimenter turned back to the corresponding page and asked questions assessing children's memory of what had happened in the story (the action landscape) and their knowledge of the character's belief i.e., the consciousness landscape" (Curenton 2011, p. 797).

The results of the study on the assessment of the children's narrative and comprehension skills in relation to their cognitive skills are interesting. According to Curenton (2011), "there were developmental changes in children's narrative production as well as their comprehension. In terms of narrative production, as expected, five-year-olds told stories that were grammatically more complex (e.g. having longer MLCUs) and more coherent (e.g. having more subject–verb propositions), and this demonstrates that older children are successful at creating these 'basic' story pyramids (Curenton & Lucas, 2007). Similarly, five-year-olds were more successful at creating what Curenton and Lucas (2007) refer to as 'complex' pyramids, meaning they told stories that included talk about the character's intentions and motivations as well as what had happened in the story. As with production, similar age trends were evident in terms of preschoolers' comprehension. Overall, five-year-old children understood the story better than three-year-olds, as evidenced by their higher scores on all the questions and their higher scores on the questions about the character's consciousness specifically. Nevertheless, all children were better at understanding the story plot than at inferring what the character was thinking as evidenced by the fact that they answered more action questions correctly than consciousness questions. Interestingly, African American children were better than European Americans on the story comprehension questions. Post-hoc analyses revealed that this was because the African American children had higher scores on the consciousness questions specifically. Based on African American children's performance on the consciousness questions, it appears as if they were better at inferring the character's motives and internal states" (Curenton, 2011, p. 803). Most importantly, this study has contributed immensely on showing how children's narrative production is closely connected to their cognitive skills. That is, the children's ability to produce a story with the relevant events and also giving information on the intentions and motives of the character were a prediction of the children's language cognitive abilities. Curenton (2011) study has a lot of connections to my study in that it sought to find out the students' abilities to produce a story as well as display the students' internal states (pragmatic acts) in the narrative productions in both English and siSwati. Moreover, this study also used some narrative measures that have been applied in this study such as number of clauses and number of words.

Similarly, a more recent study that investigated young children's cognitive abilities was carried out by Bohnacker and Lindgren (2020). This study was slightly different from the study done by Curenton (2011) in many respects but highly informative in its own right and therefore

also needs to be reviewed in detail in order to show the kind of children that were studied, the manner in which the data was elicited and how the results came out. Unlike the study done by Curenton (2011) this study by Bohnacker and Lindgren (2020) studied children from middle SES, from another culture different from the American culture studied, used story generation from a less commonly used picture book (Cat, Dog, Baby Birds, Baby Goats) and involved preschool and primary school children. This study by Bohnacker and Lindgren (2020) brought out more information on the issue of cognitive skills beyond preschool where this study's focus is. Bohnacker and Lindgren (2020) investigated "72 monolingual Swedish children aged 4;0–6;11 and 52 Swedish–English bilinguals aged 4;11–7;8, all growing up in Sweden. The monolinguals were recruited from 10 (pre)schools and the bilinguals from 20 (pre)schools in urban areas in central Sweden. The older children were attending preparatory class or had just started first grade in primary school. All children came from mid- to high-SES backgrounds. The material used was the Multilingual Assessment Instrument for Narratives (MAIN). The MAIN consists of four picture sequences depicting a story with different characters and events but identical overall story and episodic structure. In the current study, all four stories (Cat, Dog, Baby Birds, Baby Goats) were used. In addition to standardized procedures for administering the storytelling tasks and a scoring protocol for macrostructure in narrative production, the MAIN contains ten inferential why and how questions targeting characters' goals and internal states. All children first looked at the pictures and told the story, after which the comprehension questions were administered. Children told every story in the telling mode (i.e. there was no model story that the children listened to beforehand, and no retelling). During the storytelling, the experimenter could not see the pictures, but when the comprehension questions were asked, the pictures were visible to both child and experimenter" (p. 8-9). It is important at this stage to note that the comprehension questions were meant to draw out the children's abilities to infer feelings and thoughts of the characters in the story. Both the sessions of story generation were video recorded.

Once stories were gathered, the process of transcribing and coding them was done. Statistical analysis was done on the comprehension scores and interestingly further analysis was done qualitatively which makes this study even more unique compared to the study conducted by Curenton (2011). "The results have shown that the overall comprehension scores are relatively high for participants already at age 4, and certainly at age 6, indicating a good general understanding of the stories. The 4–6-year-olds were able to answer the majority of the MAIN

comprehension questions correctly. An interesting and new finding was the significant differences between the overall scores for Cat/Dog vs. for Baby Birds/Baby Goats, despite the fact that all stories had been administered in exactly the same mode (i.e. telling). At age 6, there was still a significant difference between the story pairs. This suggests that comprehension on Cat/Dog is in fact easier than on Baby Birds/Baby Goats. The children 5-6 years possess the necessary cognitive skills to make appropriate goal inferences, i.e. to fill in nonexplicit information, as well as the linguistic skills to verbalize them. Comprehension of goals at age 5 and 6 can be expected to be very high, both at group level but also for individual children since both monolingual and bilingual 5- and 6-year-olds performed close to ceiling. Response accuracies on D8/D9, which target the internal state as reaction of the protagonist in episode 3, cannot be expected to be high for Baby Birds/Baby Goats at age 4–6. In fact, the average 4- or 5-year-old cannot be expected to be able to answer D8/D9 correctly at all" (Bohnacker & Lindgren, 2020, p. 19-22). In sum, the use of MAIN to assess children's comprehension has been very informative and has shown the development of comprehension going with age even though at times it may also depend on the question favouring a certain age. Overall, this study had a very clear and easy to follow steps through which they reached their conclusions and in that way helped in giving direction to the present research.

However, bilinguals of all ages, competent adults inclusive, demonstrated challenges when processing mixed language input (Byers-Heinlein et al., 2017; Potter et al., 2019). Overall, the findings in the different studies share important evidence between monolingual and bilingual learning which points to the fact that children's knowledge about a language develops strongly in the language heard more often in their everyday lives (Singh et al., 2014). Moreover, cognitive abilities in narratives can be revealed in both monolingual and bilingual children. Therefore, it is imperative for this study to find out if differences in cognitive information processing systems occur in the narrative skills of early sequential Swazi bilingual children and adults.

2.2 Theoretical Framework

With bilingualism on the increase in Eswatini and the world at large, the influence of bilingual experience on cognition becomes ever more relevant. Therefore, the ideal theoretical framework for this study is discourse analysis (DA hereafter). This investigation takes the view

that communication has many components in it. It incorporates several linguistic and meta-linguistic dimensions, which is why DA was employed to guide this investigation.

A review of the different scholars on the definition of discourse analysis was helpful to guide this study on the analysis of oral and written narrative discourse production of Swazi bilinguals. The term 'discourse' has numerous meanings. Brown et al., (1983, p.32) refer to discourse as any form of 'language in use' or naturally occurring language, while Stubbs (1983) refers more specifically to spoken language, as "language above the sentence or above the clause" (Stubbs, 1983, p.1). In the same vein, Schiffrin, Tannen and Hamilton (2001) refer to discourse as anything "beyond the sentence" (Shiffrin et al., 2001, p.15).

In the same note, Fairclough (1995) used the sociocultural practice perspective and defined discourse analysis as the analysis of different texts. This analysis in fact, "requires attention to textual form, structure and organization at all levels; phonological, grammatical, lexical (vocabulary) and higher levels of textual organization in terms of exchange systems (the distribution of speaking turns), structures of argumentation, and generic (activity type) structures" (p. 7). Though this study used a psycholinguistic analysis of discourse Fairclough's (1995) definition had valid aspects that informed this study. Some researchers have tried to provide a definition of discourse analysis by linking it to communication. Bavelas, Kenwood & Phillips (2000) have defined discourse analysis as "the systematic study of naturally occurring (not hypothetical) communication in the broadest sense, at the level of meaning (rather than as physical acts or features" (p. 102). Wennerstrom (2003) has provided a definition of discourse analysis through concentrating on the context in which it is used. This definition can be represented in "the study of naturally occurring language in the context in which it is used" (p. 6). Consistent with the definition mentioned above, Rymes (2008) has defined discourse analysis as "the study of how language-in-use is affected by the context of its use. In the classroom, context can range from the talk within a lesson, to a student's entire lifetime of socialization, to the history of the institution of schooling" (p. 12). Also, Gee (2011) has provided a definition like the definitions mentioned above, he has defined discourse analysis as "the study of language-in-use. Better put, it is the study of language at use in the world, not just to say things, but to do things" (p. ix). Furthermore, Hai (2004) has defined discourse analysis as "the analysis of language beyond the sentence. This

however, contrasts with types of analysis which are mainly concerned with grammar, word meanings, sounds, and rules for making meanings" (p. 37).

Noteworthy, Mit'ib (2010) has defined discourse analysis as the "methodological tool, which easily lends itself to the investigation of the functional properties of talk, developmental process as well as discrimination by identifying social attitudes and ideologies responsible for observed linguistic patterns" (p. 39). Mit'ib's (2010) definition is connected to Rashidi and Rafieerad's (2010) definition in which they linked discourse analysis to the language in use. They further defined it as "the examination of language use by members of a speech community. It involves looking at both language form and language functions and includes the study of both spoken interaction and written texts. It identifies linguistic features that characterize different genres as well as social and cultural factors that aid us in our interpretation and understanding of different texts and types of talk" (p. 95). It should be noted that other researchers have tried to make a connection between discourse analysis and language functions and forms. Jiang (2012) defined discourse analysis as the study of the relationship between language and its context through shedding the light on language form and functions, spoken interaction and written texts. According to this definition, discourse analysis "identifies linguistic features that characterize different genres as well as social and cultural factors that aid in our interpretation and understanding of different texts and types of talk" (p. 2146). This is an interesting definition and has a very close relation to what this study sought to do. Most importantly, Alsaawi (2016, p.244) has defined discourse analysis as "the study of language in either spoken or written form" which is to a greater extent in line with the perspective adopted by this study" (pp.81-82). It should be noted however, that there is no single fitting definition of discourse analysis because of its nature being a cross disciplinary methodological approach.

The basic idea underlying the term 'discourse' is the common notion of language being structured according to different patterns that people's utterances follow when they take part in different domains of social life (Jorgensen & Phillips, 2002, p. 13). Many areas of research in the social sciences use this methodological approach (DA) since it is characterised by its interdisciplinary nature. Consequently, scholars in different fields develop various definitions and approaches (Schiffrin et al., 2001). As a result, DA can be used in almost any text, exploring the text in different domains, in any situation or problem (Jorgensen & Phillips, 2002).

DA is mainly concerned with the investigation of how spoken or written language production is used in communication for a "particular situation in a given setting" (Azzouz, 2009, p. 42). In essence, this means that DA's main concern is the relationship between language and the contexts in which it is used (Brenes, 2005). It is in DA that we grasp "how people construct their ideas in a cohesive and coherent way in order to communicate their message" (Brenes, 2005, p.45). As a result, it is in DA that theory and method are intertwined. Schiffrin et al. (2001) assert that the narrative has been a major area of research in DA which has led to numerous discussions ranging from the relation of discourse with the morphological and syntactic structure of narratives to the formal structure of narratives, and the use of narratives in interactions.

In psycholinguistic research, the notion of the narrative is related to macrostructure, the underlying structure or story grammar (Sun & Yang, 2011). Story grammar refers to the mental representations of the elements of a story and how it is organised. It is accepted that the basic components of a story are the sequentially related categories (Berman & Slobin, 1994; Carroll, 2008). Since the narrative is significant for developing an individuals' language skills in the community, narrative studies have as a result touched a number of disciplines, most notably the literary and linguistic areas of research. In using the narrative to elicit oral and written language, Halliday and Hasan (1976) point out that the two multi-modalities are interrelated in their characteristics (Berman & Nir, 2010; Cleland & Pickering, 2006; Sun & Yang, 2011). These characteristics concern the medium, function and formal display.

Discourse analysis focuses on language functions and forms in social communications to aid in the acquisition of language, by analysing how the foreign and locals make use of language in communal settings. By virtue of this, discourse analysis has "the tendency to rely predominantly on speech to make sense of social meaning, by utilising constituents of language in the form of phonology, syntax, morphology and phonetics" (Berrocal, Villegas, & Barquero 2015, p. 219). In the same vein Chambers, (2007) and Qomi, (2019) assert that discourse analysis has become important and was being utilized even in different research fields such as, sociolinguistics, sociology, applied linguistics, sociolinguistics, and psychology. Alsoraihi (2019) postulated that the newest move from focusing on a sentence and its constituents into a wider focus of language and the context in which it is used has seen the coming into the forefront the discourse analysis approach. Furthermore, Alsoraihi (2019) states that "discourse has structural and functional nature.

One can depend on these two perspectives to show how language is used within the scope of social context" (p. 79-80). Therefore, it was important for this study to adopt the structural and functional approaches to discourse analysis of texts as the best approaches to guide this study of written and oral narrative discourse productions of Swazi bilinguals as the following section elucidate.

The studies and approaches described in this section provide a number of important insights that have shaped my analysis of oral and written narratives in English and siSwati. Hence for the purpose of this study two approaches were relevant: the structural approach and the pragmatic and functional approach to text-linguistic (discourse) analysis. Attention and importance were placed on both spoken and written discourse, particularly oral and written narratives in English and siSwati. On the structural approach, the most influential contribution to narrative analysis is the Labov (1972) model of macrostructure and Stein and Glenn (1979) components of story grammar. The first part of this review focused on the Labov (1972) model and the last part focused on Stein and Glenn's (1979) story grammar. The Labov (1972) model is an extended version of what was initially developed by Labov and Waletzky (1967). Labov and Waletzky (1967) in their research, focused on oral narratives of personal experiences based on an emotionally significant event in their subjects' lives. These oral narratives which were collected from ordinary people presented authentic and spontaneous oral narratives. A narrative was defined as "one method of recapitulating past experience by matching a verbal sequence of clauses to the sequence of events which actually occurred" (Labov and Waletzky 1967, p. 359). In simpler words thus "a narrative is defined by the temporal sequence, in which the structure of narrative discourse clauses is equivalent to the systematic occurrence of events".

According to Labov and Waletzky (1967), only independent clauses (main clauses) are relevant to temporal sequence, while the subordinate clauses are not considered for the temporal sequence of events. This is especially true for English. It should be noted that independent clauses that form a temporal sequence are called narrative clauses and their order of sequence should remain fixed and match the order of how the events unfolded. narrative clauses indicate "action moving forward", which is synonymous with 'foreground' in other approaches (Labov and Waletzky 1967, p. 387). The clauses that change their positions without changing the interpretation of the sequence of events are called free clauses. These free clauses indicate "action not moving forward" and are called 'background' in other methods (Labov and Waletzky 1967, p. 387).

Moreover, the Labov (1972) approach further categorises two types of clauses. There is the coordinate clause and the restricted clause. The coordinate clause is a "narrative clause" that appears at the same time with another "narrative clause" in the sequence, while the restricted clause is a type of clause similar to a free clause and is only part of a narrative. Labov (1972) elaborated on the overall frame structure of narratives (the macro-structure level) and came up with six important components: abstract, orientation, complicating action, resolution, evaluation and coda.

To enhance the understanding of Labov (1972) six important structures of narrative episodes it is important to first review literature on samples of language analysis such as macrostructure as outlined by various researchers in order to justify the analysis that was adopted by this study. Justice, Bowles, Kaderavek, Ukrainetz, Eisenberg and Gillam (2006) state clearly that narrative discourse that has been produced through retelling or generating oral narratives always contains characters, episodes of the story, and the point of view of the narrator and can be defined as forming part of macrostructure and microstructure. In fact, Justice, Bowles, Pence and Gosse (2010, p.219) state that narratives can be easily described as "the macrostructure (the global organisation of a story) and microstructure (usage of complex syntactic structures and specific types of words)" of the story. Justice et al., (2006) postulate that "macrostructure relates to the overarching structure of the story and its organizational schemas including the following narrative elements: setting, initiating event (problem), internal response (feelings), plan/attempts to solve the problem, consequence, and resolution" (p. 152). Similarly, Torng and Sah (2020) argue that "macrostructure draws upon temporal or causal relations to build the global structure of the plot line that integrates information about characters, events, and activities into a coherent whole. The microstructure concerns a more local level of language measures such as lexical diversity, syntactic complexity and inter-sentential cohesion" (p. 454). Furthermore, Hipfner-Boucher, Milburn, Weitzman, Greenberg, Pelletier and Girolametto, (2015) contended that microstructure was mostly focused on telling a story by using language such as word or sentence. Hipfner-Boucher et al. (2015) further elucidate that "microstructure makes use of linguistic knowledge to convey meaning and is described by measures such as lexical diversity (i.e., number of different words (NDW), number of total words (NTW), and grammatical complexity, including measures of mean length of utterance (MLU) and degree of sentence subordination" (p. 153). Similarly, Brooks and Kempe (2014) in their study assert that "macrostructure is described as the overall organization of the discourse and the way concepts and ideas relate to each other while

microstructure refers to the lexical, syntactical, and morphological features of a language". Furthermore, they argue that "typical narrative development is characterized by microstructural and macrostructural changes as the child's oral language skills mature and become more sophisticated" (p. 76). Rezzonico, Chen, Cleave, Greenberg, Johnson and Girolametto (2015) in their study stated that "macrostructure was measured by the amount of information in the retell based on the inclusion of key events and key words while microstructure measures included lexical diversity, sentence length (average of the five longest sentences), verb accuracy, and the use of first mentions" (p. 837).

Furthermore, in the same vein Wood, Wofford, Gabas and Petscher (2018) in their measure of macrostructural components involved "an index of the quantity of elements which is referred to as number of total story elements regardless of the type of element (e.g., plot, setting, characters). The narrative transcriptions were analyzed and coded for eight storytelling components: character, setting, plot, initiating event/problem, reactions/emotions, attempt, consequences, and ending. While the microstructural measures included number of different words (NDW), number of total words (NTW), verb accuracy, and words per minute (WPM)" (pp. 32-33). While Mendez, Perry, Holt, Bian and Fafulas (2018) in their study of bilingual Latino children at kindergarten used both macrostructure and microstructure to determine the children's narrative quality. For macrostructure, they argued that "this measure incorporates seven components of a narrative, including three story grammar elements: introduction (setting information and introduction of main characters), conflict resolution (between character conflicts and their respective resolutions), and conclusion (story ends with concluding statements); two literate language elements: mental states (characters' thoughts and emotions that advance the plot) and character development (describes and distinguishes main and supporting characters throughout the story); and two elements of cohesion: referencing (provides antecedents to pronouns) and cohesion (events follow a logical sequence with appropriate transitions)"(p. 157). On the other hand, "microstructure was measured by computing the Mean Length of Utterance in words (MLU-w), the Number of Different words (NDW), and the Subordination Index (SI) of the children's retell transcriptions" (p. 157). It is important to note that the definitions by Mendez et al., (2018) and Wood et al., (2018) of macrostructure and microstructure are in line with what this study intends to use.

In a study conducted by Hao, Bedore, Sheng and Pena (2019) on the narrative skills of Mandarin-English bilingual children they utilized the adapted version of macrostructure analysis of the Monitoring Indicators of Scholarly Language (MISL) (Gillam, Gillam, Fargo, Olszewski, & Segura, 2016). Hao et al., (2019) used a scoring rubric containing seven components of a story: "character, setting, initiating event, internal response, plan, action and consequence" and four general microstructure measures such as: "total number of C-units, total number of words (TNW) (indicating story length), (NDW) (indicating lexical diversity) and MLU (indicating stages of language development)" (p. 329). In a summary, Hao et al., (2019, p. 333) state that "macrostructure reflects the global story organization, and children may apply macrostructure skills to both languages once they learn these skills. However, microstructure is about the usage of language-specific features, and children need to practice different features in each language." In a short and simpler description of what macrostructure skills entail in a story according to Berman and Slobin (1994, p. 17) is that, it "reflects story processing ability which has to do with plotting the beginning, development and outcome of a story" and this concise description sums up the approach that this study engaged having been informed by the numerous studies discussed.

In a much recent study conducted by Orizaba et al., (2020) on Spanish-speaking preschooler's narrative language, the macrostructural analysis focused mainly on "seven narrative characteristics: (a) introduction (i.e., the quality of the narrator's establishment and description of the setting and main characters), (b) character development (i.e., differentiation of main and supporting characters and their significance throughout the narrative), (c) mental states (i.e., reference to and description of the character's thoughts and feelings), (d) referencing (i.e., use of names, pronouns, and other antecedents and words for clarification), (e) conflict/resolution (i.e., establishment and description of conflicts and their resolutions throughout the story), (f) cohesion (i.e., the presence and quality of sequencing and transitions), and (g) conclusion (i.e., the clarity and quality of statements to wrap up the narrative)" (p. 432). It is noteworthy, that the NAP-S (Gorman et al., 2016) assessment component favoured the microstructural analysis level while the NSS (Hielmann et al., 2010) assessment component favoured the macrostructural level which is reflected in their study. Orizaba et al., (2020) analysis closely followed on both Labov's (1972) macrostructural elements and Stein and Glenn (1979) story grammar components which is what this study sought to do by adapting and combining both models for a thorough analysis of the written and spoken narrative productions.

A newer and more encompassing definition of narrative macrostructure was postulated by Bowles, Justice, Khan, Piasta, Skibbe and Foster (2020, p. 391) in their tool developed to assess children's narrative skills. They argued that "macrostructure involves analysis of the child's use or understanding of causal networks, event representations (i.e., scripts), and story grammar elements within narratives". Bowles et al., (2020) further state that "macrostructural analysis is based on the perspective that children's narrative abilities are influenced by their "mental representations of events and the verbalizations of such scripts" (Berman, 1995, p. 287). "The macrostructural approach to analysis examines global characteristics of the narrative, such as adherence to traditional story grammar rules (i.e., if the story contains a series of episodes, comprising an initiating event, goal, plot, and resolution" (Bowles et al., 2020, p. 392). Furthermore, Bowles et al., (2020) postulated yet another embodying definition of microstructure worth noting. "Narrative microstructure involves the more granular aspects of a narrative, such as the specific sentences, phrases, clauses, and words. Analysis of narrative microstructure often examines, for instance, the total number of T-units within a narrative (a T-unit is one independent clause and any dependent phrases and clauses) and the percentage of these T-units that contain complex syntax. This can also include examining how the narrator builds cohesion across the narrative, through the use of pronominal references, coordinating and subordinating conjunctions, and other morphosyntactic devices" (p. 392).

The Labovian (1972) macrostructural components of a story are pertinent for my study because they are well suited for the written narrative analysis that were done in this study. It is important to note that this study is analyzing both the written and oral narratives in English and siSwati. Research (Ozyildirim, 2009; Tannen 1982) has shown that in the written narratives the beginning (abstract), the evaluation and ending (coda) were the most used structural components of the six components while this was not the case with the oral narratives. It is for this reason that this study adopted the Labov (1972) macrostructural components in order to ensure that the analysis was fairly done and covered all aspects of the written narratives.

The other structural model adopted for this study was Stein and Glenn (1979) Story Grammar (SG) approach. It should be noted that narrative macrostructure is analyzed by means of Story Grammar elements (Stein & Glenn, 1979) and causal relations that connect these elements into a coherent structure (Fichman, Altman, Voloskovich, Armon-Lotem, Walters, 2017). Since

most analysis on macrostructure is founded on Story Grammar categories (Stein & Glenn, 1979) it is worthwhile to discuss briefly what this approach entails.

There are six components of Story Grammar. The six components are: setting, initiating event, internal responses (goal), attempts, direct consequences (outcomes), and reactions. "According to the story grammar approach, narratives begin with a Setting which provides background information on the characters and their environment. A setting is followed by one or more episodes which are temporally and causally related and are centered around a protagonist. Key elements in every story are: Initiating Event (the problem that generates/prompts the narrative), a Goal (G)reflecting the character's motivation to solve the problem, an Attempt (A) to achieve the Goal, and an Outcome (O) which may or may not be successful and Ending" (Fichman et al., 2017, p. 73). Similarly, Makinen et al., (2020) state that "according to the Story Grammar model, story grammar categories Initiating Event, Attempt and Outcome are considered to be core units of story" (p. 400) leaving out the goal (G) which may or may not be accomplished. According to Orizaba et al., (2020), "macrostructure is linked to mental schemas (Stein & Glenn, 1979) for the organization of the story and is formed according to the narrator's exposure to story models. Macrostructure is most often measured by story grammar components including, for example, plot elements (problem, attempt, and consequence) and setting" Orizaba et al., (2020). Furthermore, "microstructure exists at sentence and word levels and microstructural elements generally include language forms such as syntactic and morphological structures, vocabulary types and tokens, and cohesive devices" (p. 428). Furthermore, Orizaba et al., (2020) argue that "narrators must utilize specific vocabulary, including mental state verbs and descriptive adjectives, to produce macrostructural elements such as setting and character descriptions in their stories" (p.429).

The definition of story grammar above is not far too different from the definition given by some researchers using story grammar approach in their analysis. However, the slight difference observed with these researchers (Roth & Spekman, 1986; Mozeiko Le, Coelho, Krueger & Grafman, 2011; Stein & Glenn, 1979) is the fact that they blend both the Labovian (1972) story components and Stein and Glenn (1979) story grammar episodes. According to Mozeiko et al., (2011); Richardson & Hudspeth, (2014) and Stein & Glenn (1979) "story grammar refers to an organizational framework used in Western narratives that facilitates comprehension by conveying logical relationships between characters/agents and events" (p. 2). In addition, Roth & Spekman,

(1986, p. 9) and Stein & Glenn, (1979) explained that "story grammar categories include a setting introducing characters, location, and timing; one or more episodes conveying the story's middle scenes; and a conclusion/ coda drawing story events to a close" which also takes into account the Labovian (1972) macrostructural components. Apart from the tiered structure of the story, story grammar analysis (Stein & Glenn, 1978) "additionally provides information about the quality of the story, since it not only takes into account the description of the chains of actions, but also provides information about the interpretation of the described situation. Moreover, the use of mental state terms is considered important for comprehensible narrative, since perspective-taking is an essential element of narration" (Makinen et al., 2020, p. 396; Bruner, 1986). Bruner (1986) further describes the quality of the story as consisting of two levels. Bruner (1986) says that "narrative has two levels: landscape of action and landscape of consciousness, of which the latter consists of information about what those involved in the action know, think, or feel, or do not know, think, or feel" (p. 14).

Stein and Glenn, (1979); Greenslade, Stuart, Richardson, Dalton and Ramage (2020, p. 2) assert that in story grammar " a complete episode minimally includes three components: (a) an "initiating event" that prompts the character to engage in a goal-directed behavior, (b) an "attempt" or action intended to attain the goal, and (c) a "direct consequence" or outcome of the attempt relative to the goal ". Greenslade et al., (2020) goes further to discuss the episodes that were relevant to their study by adding that "initiating events, attempts, and direct consequences may extend over more than one utterance, and a single utterance may include more than one component" (p.3).

The division of episodes into a different number of propositions as stated by Stein and Glenn (1979) and Greenslade et al., (2020) was adopted to inform this study. There are five episodes (marked A-E) that make up the story entitled "The boy who learned to fly, Usain Bolt" and each of the five episodes contains between one to eight propositions each. The episodes are: "Coming out of the house, Boy runs with dog, Running through the field, Collision with man and Running up the steps". Each of these episodes have Stein and Glenn (1979) schemas which have several propositions under each schema. However, the setting and concluding/coda schema may not have recurring schemas while the "initiating events, attempts, and direct consequences" schema recur in episodes B-D. Using the blend of macrostructure and story grammar framework

made the analysis of the macrostructure and microstructure practical and informative for this study on English-siSwati bilinguals.

Furthermore, the use of Stein and Glenn (1979) story grammar is relevant for my study of written and oral narratives of bilinguals. Stein and Glenn (1979) story grammar model is more relevant for the oral narratives while the written narratives had been catered for by the Labov (1972) macrostructure model. Studies (Ozyildirim 2009) confirm the fact that oral narratives predominantly focus on the three components; goal (G), attempt (A) and outcomes (O) of story schemas. That is, the oral narratives largely started with orientation and ended with resolution when referring to Labov (1972) model. Therefore, the analysis using both the Labov (1972) macrostructural components and Stein and Glenn story grammar added value to the narrative analysis and mostly also captured the pragmatics (which are the mental states) (Reilly, Losh, Bellugi, & Wulfeck, 2004) which is understudied in narrative productions of bilinguals.

From the studies reviewed above, different measures of macrostructural components were used but they all demonstrated a similar development in terms of macrostructural measures across school years.

There are a few studies that have compared oral and written narratives by examining the evaluation component in the structure of narratives. A study conducted by Tannen (1982) on the differences between oral and written narratives when examining the evaluation component, found that the oral narrative version was able to capture the speaker's attitude through paralinguistic cues and repetition. However, when it came to the written narrative version the speaker lost the chance to portray the attitude or evaluation. Therefore Tannen (1982) gives alternatives for substituting paralinguistic cues into writing by evaluating using lexicalisation or diacritics and therefore sometimes the evaluation is abandoned. Furthermore, a study by Ozyildirim (2009), which compared oral and written narratives of Turkish personal experiences, found that in both modalities there was evidence of all categories or components of Labov's model. However, there were variations shown in the study between the written as well as the oral narratives in terms of the abstract and the coda. There was more use of the beginning and ending categories in the written narratives compared to the oral narratives. The oral narratives predominantly started with orientation and ended with resolution. In a further analysis of the evaluative category in the written and oral narratives, Ozyildirim (2009) found that there were more evaluative clauses in the written

form compared to the oral form. However, it should be noted that the approach used did not fully comprehend the differences in evaluation in oral and written form.

The pragmatic and functional approach to text-linguistic (discourse) analysis is also relevant to this study and was developed by Colletta, Kunene, Venouil, Kaufmann and Simon (2009) and further elaborated by Kunene (2010) to fit the Nguni languages. The main aim of their approach was to discuss the basic concepts and orientation in the area of DA for field linguists. In their work they provided instructions on how to arrange texts for analysis. The manual and study explained transcription conventions, linguistic annotation (which entailed segmentation of child speech turns, segmentation of the child words in clauses), the narrative annotation, which entails categorisation of the clauses into macro-episodes and micro-episodes, and categorisation of the clauses as expressing speech acts or pragmatics (Colletta et al., 2009; Kunene, 2010).

Narratives are multidimensional and known to include both linguistic and pragmatic elements (Makinen, Gabbatore, Loukusa, Kunnari & Schneider, 2020) that can be studied from different linguistic angles. Makinen et al., (2020, p. 396) note that by virtue of the nature of narratives their "analyses are seen as consisting of global or local perspectives". "The local or microlevel analysis allows the investigation not only of sentence-level organization and syntactic complexity but also the analysis of overall linguistic productivity (e.g., the number of words or clauses) and the use of vocabulary. In contrast, the global or macro level focuses on the hierarchical structure of the narrative, and its event content, which can be represented by utilizing, for example, story grammars, which are cognitive schemas that guide the interpretation of the discourse" (Hickmann, 2003, p. 32).

It is therefore highly likely that the mental states in story telling differ across cultures as microstructures too considering the fact that people have a tendency to express different thoughts and feelings in different communication situations. It should be noted that very few studies have conducted research on the mental states (thoughts and feelings) in story telling which was definitely an important component of this study. It is then important to discuss studies that investigated the mental states, number of words and number of clauses so as to bring out the functional (linguistic productivity) and pragmatic elements in the studies. In a study conducted by Berman and Slobin (1994) of Hebrew and English children, the findings show that the English children had a tendency to use a varied range of vocabulary when referring to mental states while

the Hebrew children use minimal words to refer to mental states. In another study, the findings of Fusté-Herrmann, Sillimann, Bahr, Fasnacht, and Federico (2006) indicate that Spanish-speaking Costa Rican children produced less mental state verbs when compared to the English-speaking American children. Minami (2008, 2011) found that "English-speaking adults valued the use of mental state language more than did Japanese adults – the more evaluative comments in a story, the higher the English-speaking adults rated the story. This trend was not detected among Japanese adults. According to Minami, this difference might be explained by cultural differences, as explicit expression of emotions is not as common in Japanese as it is in American cultures" (p. 86) Lai, Lee, and Lee (2010) conducted a study on the "personal narratives of Asian children coming from South Korea or Taiwan. Even though coming from Asian cultures, there were differences in the use of mental state terms, as Taiwanese children produced these more" (p. 449). On similar findings, Kang (2003) found that "Korean adults tended to include less evaluative language in their narratives than did English-speaking adults. These findings might suggest that people coming from different countries or cultures might have somewhat different storytelling styles in terms of mental state reporting" (p. 132). Therefore, it was important for this study to investigate the Swazi bilingual narrative productions to ascertain if the mental state reporting was indeed cultural or not.

Studies that have considered productivity measures (such as, number of words, number of clauses, lexical diversity) are not so many, perhaps due to the fact that linguistic structures are varied. A few studies conducted in different languages found differences in narrative length. Colletta et al. (2015, p.137) in their study of American, Italian, and French children's narratives found that "the American children produced shorter stories, measured by the number of clauses, than French or Italian children did". On a similar study of personal narratives, Gonzáles (2009, p. 561) "analyzed the number of clauses and documented that adult English speakers' personal narratives were shorter than those of Catalans". In contrast, Kang (2003) discovered that English adults produced more clauses in picture-based stories than did Koreans. The same results were observed by Han et al. (1998), in their study of American, Korean and Chinese children. However, Lai et al. (2010) did not find differences in the length of Korean and Taiwanese children's personal narratives, even though the Korean children's narratives were more developed in terms of structure" (p. 397).

In summary, it should be noted that from the studies reviewed macrostructure is common amongst languages however, microstructure is usually restricted to a particular language as discussed in the numerous studies above. In the following section the language structures of both English and siSwati are discussed, and some linguistic data used to clarify more on the two language structures.

2.2.1 English and siSwati Language Structures

This study's aim was to increase the understanding of information on the processing demands presented by the English and siSwati from the 9-year-olds, 13-year-olds and young university adults as the epitome representatives of the acquisition of both languages. From the oral and written transcriptions in both languages there was a selection of language structures that were relevant to the study from a cross-linguistic perspective. It is worth mentioning that English is an analytic language and siSwati is an agglutinative language, therefore it was important that the linguistic coding was adapted to consider the language being analysed. The two languages are structurally different, "siSwati is an agglutinative language that has a wide range of word inflection and employs many suffixes to convey grammatical relations. On the other hand, English has very limited verb morphology, and instead has a tendency to convey grammatical relations in words more than in morphemes" (Makinen et al., 2020, p. 401). Therefore, as a result of the differences in the linguistic structures of the two languages the linguistic analysis was done using clauses and not morphemes which was more similar across the languages. This is attested to by Berman and Verhoeven (2002) that "using clauses as a measure of narrative production comprises a valid source for cross-linguistic studies" (p. 22).

The oral and written transcription were categorised into clauses. The total number of clauses encompassed in a narration is the story's informational quantity, and likely to increase with age (Colletta, Kunene, Venouil, Kaufmann & Simon 2009; Kunene, 2010). Employing Colletta et al., (2009) and Kunene, (2010) grammatical approach, the clause was defined as "a predicate matched by one, two or three arguments (logical approach), or a continuation of words including a verb matched by its satellites as subject and complement(s) (grammatical approach)" (p. 56).

The following examples from English and siSwati illustrate how I coded for a clause:

a) The boy plays the ball on the soccer field (English Oral)

This was coded as one clause as it had one verb predicate ‘plays’ in it.

b) Umfana uyagijima ubalekela inja (siSwati Oral)

The boy is running, he’s fleeing away from the dog.

This sentence was coded as having two clauses as it has two verb predicates ‘gijima’ (root for runs) and ‘baleka’ (verb root for ‘flee’) in it

a) The boy is jumping over the chairs in a restaurant (English written)

This was coded as one clause as it had one verb predicate ‘jump’ in it

b) Make wakhe uvela emnyango uphetse sikafuthina salomfana (siSwati written)

The mother appears at the door carrying the boy’s lunch box

This sentence was coded as having two clauses as it has two verb predicates ‘vela’ (root for appears) and ‘phetse’ (verb root for ‘carrying’) in it

2.2.2.Word-Annotating

The next phase was to segment words from the clauses to allow for finer syntactic analysis (Kunene, 2010). As mentioned earlier on English verb morphology is limited hence the tendency of this language to get across grammatical relations in words than in morphemes. Therefore, due to these differences in the language structures of English and siSwati the analysis was done using words. The definition of a word had to be described as a unit to allow for the syntactic coding of siSwati. The following examples illustrate:

a) I saw the boy climbing up stairs. (Written English)

Word segmentation = 7 words/units in written English.

b) Ngibone lomfana anyuka titebhisi. (Written siSwati)

I saw the boy climbing up stairs.

Word segmentation = 4 words/units in siSwati

c) The boy collided with a man carrying papers (Oral English)

Word segmentation = 8 words/units in oral English.

d) Lomfana waphazamisa indvodza lephetse emafayela (Oral siSwati)

The boy disturbed a man carrying files

Word segmentation = 5 words/units in oral siSwati.

Kunene (2010) in her findings on isiZulu that the use of affixes had no major influence on the Zulu children's narratives they analysed. Therefore, this finding is relevant to the siSwati language which also comes from the Nguni family language in which Zulu belongs. The affixes in siSwati functioned the same way as the word blocks in English an analytical language, therefore there would be no direct influence on the pragmatic level. Then the word or unit segmentation analyses was used for both English and siSwati. More samples of written and oral narrative extracts in English and siSwati are shown in Appendix N-Q.

Once the clauses were identified then there was a categorization of the clauses into macro-episodes and micro-episodes. Numerous clauses were allocated to macro-episodes and micro-episode and those clauses that did not evoke any corresponding events of the story were further classified as part of the pragmatic speech acts of narration, interpretation, commentary and explanation which were used to measure narrative complexity.

The following are examples of macro-episodes and micro-episodes of the cartoon entitled "The boy who learned to fly, Usain Bolt" (Limbert & Jake, 2016). The macro-episodes have been listed for example, as macro-episode A. Furthermore, the micro-episodes have been listed for example, as micro-episode A1-A4 and the rest of the other micro-episodes in both English and siSwati are attached as appendix K.

Table 2.2 List of macro-episodes and micro-episodes

Episode code	Episode description
Macro-episode A	Coming out of the house

Micro-episode	**A1-A4**
Macro-episode B Micro-episode	Boy runs with dog **B1-B6**
Macro-episode C Micro-episode	Running through the field **C1-C8**
Macro-episode D Micro-episode	Collision with man **D1-D5**
Macro-episode E Micro-episode	Running up the steps **E1**

After the categorization of the clauses into macro-episodes and micro-episodes were completed then the pragmatics units of language were analysed as measures of complexity as already mentioned. The pragmatics speech acts are of importance when studying bilingual narrative production because "pragmatics adds vibrancy and additional meaning to the language being used and the content being discussed" (Kersting, Anderson, Newkirk-Turner, & Nelson, 2015, p. 95). Furthermore, speech acts in a normal classroom determine "intents such as inquiring, predicting, interacting/relating, responding commenting, reporting, clarifying, interpreting, and directing/regulating" (Ninio, Snow, & Rollins, 1994, p. 170). It is important to note that even in the written narratives, the pragmatic speech acts portray "the speaker's [writer's/author's] use of utterances with certain intentions in mind and the effect the utterance has on a listener [reader] in a given context" (Rivers, Hyter, & DeJarnette, 2012, p. 15). Furthermore, "Speech act oral traditions (which is popular amongst the AAE community) contribute to literacy in at least two important ways in that they (speech acts) (a) highlight background cultural knowledge students bring to the literacy task (comparative experiences that the children brought to the discussion" (Hyter, DeJarnette Rivers, 2018, p. 137).

Therefore, the pragmatics units of language in this study were also analysed (for complexity measures) based on four categories of clauses expressing speech acts namely:

interpretation, explanation, narration and commentary (Colletta et al., 2009). According to Colletta et al., (2009, p. 136) the four categories of speech acts are:

"< narrates > when the clause takes the description of a micro-episode or states the explicit dimension of this micro-episode: the child tells the event such as it appears in the cartoon.

> **Thus:** any clause having been identified as corresponding with a micro-episode is to be annotated with < narrates >

< explains > when the clause imports a precision of a causal nature: the child/adult includes a supplementary explanation to the narrated event such as it appears in the cartoon.

E.g.:
(the boy's mother appears at the door) because the boy forgot his lunch box
>>>2 clauses to be annotated with <explain>

(Lomfana uyagijima) ngoba ushiywa sikhatsi
(the boy is running) because he is late
>>>2 clauses to be annotated with <explain>

< interprets > when the clause presents an inference or an interpretation concerning the situation or the intentions of the characters: the child invents from the event, makes some hypothesis…

E.g.:
(the tall boy runs slow) so the boy takes the ball and scores a goal
>>> 3 clauses to be annotated with < interpret>
(the boy ran)and then came to his home
>>>2 clauses to be annotated with <interpret>
lomfana ulihlongandlebe uhamba acala bantfu)
the boy is naughty (he provokes people around)
>>>2 clauses to be annotated with <interpret>
Umfana lomncane ugcoke inyufomu uya esikolweni
The young boy is wearing a uniform he is going to school
>>>2 clauses to be annotated with <interpret>

< comments > when the clause deals with neither the explicit aspects, nor the implicit aspects of the course of the events but presents a "meta-narrative comment" relating to a character, an action or any aspect of the story, or a "para-narrative comment" relating to the action of telling the history (judgement, personal appreciation…)

E.g.:

then the story comes to an end
>>>1 clause to be annotated with <comment>

it is surprising that the boy keeps running and (the boy) does not get tired
>>> 2 clauses to be annotated with <comment>”

It is important for this study to completely compare the narrative productions of both English and siSwati just as Makinen et al., (2020) argue that “narratives bring out not only the linguistic and cultural aspects but also the pragmatic elements ” (p. 395) which are very important when studying bilinguals and more especially those of less studied languages like siSwati.

In concluding the adoption of discourse analysis approach of this study Alsoraihi (2019) sums up the origins of discourse analysis, the main focus of discourse analysis and how it can be helpful in the language classroom. Alsoraihi argues that “the communicative approach has led to the emergence of discourse analysis that has its roots in many disciplines. The main theme in discourse analysis is the study of the unique relationship between language and the context in which it is used. It concentrates on spoken language and written texts through shedding the light on the relationship between the linguistic form and its functions. Classroom discourse analysis is a crucial element of classroom practice; it enables us to understand the complex relationship between students and teachers and provides us with valuable information related to language analysis” (p. 86).

The DA of oral and written narratives in this study focuses on the structure of language and how it is used in the narrative tasks to highlight any similarities and differences present concerning English and siSwati languages and the relationships that exist. The nature of input on language learning is of great importance for children in bilingual settings learning a second language, either after a first language or simultaneously. This is because children may show different productions in each language in tasks such as storytelling, due to the varying amounts of experience they have in the two languages (Fiestas, 2008, 49).

2.3 Summary

This chapter discussed the body of research on bilingual oral and written productions in narrative discourse in children and adults in order to explore the nature of input on the different

narrative productions in each language. The discussion also highlighted on the theoretical framework that helped inform this study on the methods used to analyse the data. The topics discussed shed light on the current study and the reason why the study has chosen to investigate the productions in narrative discourse of bilinguals from a multimodal perspective.

CHAPTER 3 METHODOLOGY

3.1 Introduction

The aim of this study was to provide empirical evidence on the comparison of the written and oral productions in narrative discourse of English-siSwati bilingual children and young adults. In doing so, the research considered the following research questions:

1. What is the effect of age when children and young adults produce narratives?
2. What is the effect of language when English-siSwati bilinguals produce narratives?

To address the above research questions, this chapter will discuss the research method employed when carrying out this study, which draws from numerous researchers such as, (Alsoraihi 2019; Orizaba et al., 2020; Bowles et al., 2020; Makinen et al., 2020; Alamillo et al., 2013; Colletta, 2009; Colletta et al., 2015; Colletta et al., 2009; Colletta et al., 2010; Kunene, 2010; Kunene Nicolas, 2015; Kunene Nicolas, 2017; Labov & Waletzky, 1967; Labov, 1972; Stein & Glenn, 1975), the research design selected, the location and sample of participants, the data collection tools, together with the process used, how the data was analysed, the ethical standards that were observed, and finally, the chapter synopsis.

3.2 Research Method

This study used a quantitative method. The quantitative method is one of the more practical ways used to investigate the extent and comparisons among the variables of this study and make valid predictions about them.

Quantitative methods are more useful in hypothesis-testing research. Therefore, it was for this reason that this study adopted the quantitative approach in investigating the dimensions and changes of the influences among the variables (modalities, age, languages) of this research.

Furthermore, the quantitative research paradigm has the advantage of using descriptions that are similar to real life. A quantitative research method explains phenomena by ‘collecting numerical data that are analysed using mathematically based methods, in particular, statistics' (Creswell, 2009, p. 153). In addition, a quantitative investigation allows for an empirical investigation that enables the researcher to evaluate the comparisons between the two languages

and modalities. The sensitivity of the quantitative method has been clearly demonstrated in Cohen (1980). He says that quantitative research is social research that employs empirical methods and practical statements. He further argues that an empirical statement is defined as a descriptive statement about what "is the case in the real world rather than what ought to be the case", and these empirical statements are expressed in numerical terms (Cohen, 1980, p 56). Furthermore, Leedy and Ormrod (2018) assert that quantitative research methods use numbers and anything that is measurable in a systematic way of investigation of phenomena and their relations. Moreover, Leedy and Ormrod (2018) say that quantitative research methods can be used to answer questions on relationships within measurable variables, with an intention to explain, predict and control phenomena. In addition, Creswell (2009, p. 18) postulates that the quantitative approach is the best to use in the case of "identifying factors that affect an outcome, the effectiveness of an intervention or understanding the best predictors of outcomes". This research sought to understand the factors that influence the production of narratives by English-siSwati bilinguals. Furthermore, it is through this method that I was able to identify the variables to study and use the proper standards of validity and reliability so that there were no biases when conducting the research. Therefore, the quantitative method was the best approach found suitable to adopt for the purposes of this study.

Quantitative research is made up of three research types, namely the experimental research, quasi-experimental research and non-experimental research. It was considered that the non-experimental measures would usefully supplement and extend the comprehension of this study. The non-experimental quantitative research paradigm was used in order to gain insights into the comparisons between the written and spoken productions in narrative discourse of Swazi bilinguals.

3.3 Research Design

The non-experimental quantitative research strategy is further divided into between-subjects and within-subjects designs. The present study was designed to compare the studied variables and also make predictions about them; hence the most fitting research design was the cross-sectional developmental design which falls into the between-subjects group design. The cross-sectional developmental design was most suitable for my study because it compared pre-existing groups of different ages without random assignment (Creswell et al., 2009). These were the young (9-year-olds) and older children (13-year-olds) and adults (university students). The

advantages of using the cross-sectional design were that it was time efficient since it did not require long-term cooperation amongst the participants and had fewer attrition problems such as participants dropping out due to tiredness. Furthermore, the advantage of using non-random sampling in this study was that it was natural and did not manipulate any variable and had external validity, hence easily be generalised to the larger population. When conducting my study, I gathered information about the multiple variables involved (such as language, modalities, age) and their influence on the narrative productions of the English-siSwati bilingual young and older children, and young adults in their natural settings.

3.4 Sampling of Population

The research was carried out in Eswatini amongst primary, secondary and university students. The eligibility criteria required individuals to have siSwati as their first language (L1) and English as their second language (L2), in a school/university setting. The eligible research participants were all based in one region called Manzini which is located in the middle of the country. The objective of choosing the Manzini region was because it is in the middle of the country and has a high population of students coming from various regions of the country, hence it is ideal as representative of the entire student population of Eswatini. Moreover, the central region or district was accessible to me since I work within the same region. It should be noted that the population for this study was purposively selected. This is because I was acting on the basis of my previous research recommendation of a similar population as the one selected for my Master's degree. Figure 3.1 depicts the location of the population studied (Google Maps, n.d.).

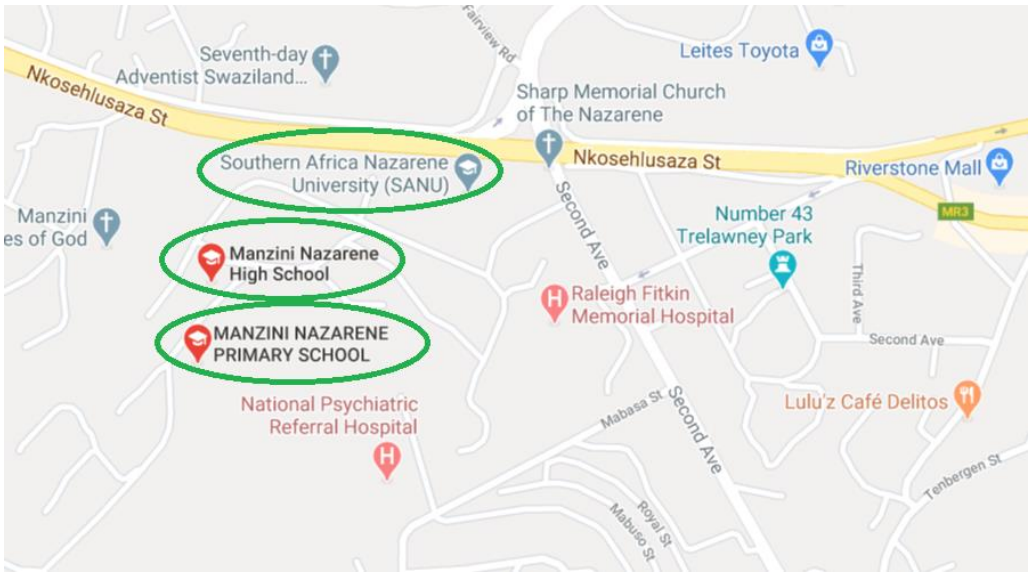

Figure 3.1 Location of SANU, Manzini Nazarene High school and Manzini Nazarene Primary school (Google Maps, n.d.).

3.4.1 Sampling Technique

Once the population of the study had been identified, a stratified random sampling technique was used further. This is because the study wanted to get a perfectly identifiable subpopulation of participants that was more homogenous than the population at large. Christensen, Johnson and Turner (2019) state that in stratified random sampling the population elements are divided into mutually exclusive groups and then a selection of a random sample from each group is performed. This entails that participants were divided into special equal groups from which there was a random selection. This ultimately led to this study using 45 homogenous participants.

3.4.2 Selection Criteria

The project used a purposively selected sample of 45 students. As noted earlier the eligible participants were attending school and the adults were enrolled at the university. The focus of the research was on three types of participants, those in their third grade of primary school, eighth grade of high school and final year at the university. Three age groups were selected for this

research project, as illustrated in Table 3.1. Group 1 consisted of school learners aged between 8 and 9 years (3rd graders). Group 2 consisted of school learners aged between 13 and 14 years (8th graders). Group 3 consisted of young adults between the ages of 22-27 years who are at their tertiary level of education, in their third year of study, majoring in languages. Only 15 participants were chosen from each age group. In each group, these 15 participants consisted of seven females and eight males for the young children, eight females and seven males for the older children with the exception of university students who consisted of 13 females and three males thus resulting in a total of 27 females and 18 males and a corpus of 45 participants.

The exclusion criteria from this study included hearing, behavioural and or learning disorders, neurological impairments, and reading or spelling problems. All participants in this study displayed typical language abilities, mental behaviour and had developed positive attitudes and relations so they completely qualified as developing normally as young children, adolescents and adults.

3.4.3 Age and Educational Level of Participants

According to the educational system in Eswatini, children begin formal primary education when they turn seven years of age. However, this group of 3rd graders were between 8.1-8.10 years old in the course of data collection. These children were in the third year of the four year foundation phase where the language of instruction is supposedly siSwati as stipulated in the Language Policy of the Ministry of Education and Training, (2011). All the participants were in the final school term of grade 3 at the time of testing to ensure that all participants had experienced at least three years of formal schooling and had been exposed to speaking and writing in a school setting. This criterion was consistent with the broad aim of the study which was to compare how the English-siSwati bilingual children produce both oral and written narratives.

Group 2 consisted of 8th graders between 13.2-13.9 years old when the data was collected. This group was doing their first year of high school and in their last term of grade 8, which was sufficient to pass on to them the whole culture of secondary school preparedness and its different demands to primary school in terms of language expectations. The eighth-graders' syllabus thoroughly prepares them for the second external examination in the next two years. In addition to

the written examination, the 8th graders are also prepared to take their first oral examination which is congruent to the aim of this study.

The third group of participants was made up of adults between the ages of 22.8-27.11 years old and were doing their last year of a diploma programme majoring in languages (English and siSwati) at the time of data collection. This group has vast language experience, having studied in both English and siSwati for fifteen years. This last group acts as an epitome of language development as research argues that language develops with age (Ahmed, 2015; Alamillo et al., 2013; Colletta et al., 2015; Colletta et al., 2010; Kunene Nicolas, 2015; Kunene Nicolas et al., 2017; Park, 2014; Reilly and Polse, 2016). Group three was an important part of this study because it was in keeping with the major aim of the study, to explore how the bilinguals constructed narratives in written and oral form.

The participants for English were the same as the ones used in the siSwati narrative productions. I selected 15 participants from each age group. Table 3.1 presents the totality of the analysed corpus. The standard deviation for the 9-year-olds was 3.36 months, for the 13-year-olds was 2.67 months and 16.55 months for the adult group.

Table 3.1 Distribution of sample participants by age and gender

Age group	**Average age in months**		**English**		**SiSwati**	
	English	**SiSwati**	**Females**	**Males**	**Females**	**Males**
9 years	102.6	102.6	8	7	8	7
13 years	162.1	162.1	7	8	7	8
Adults	304.1	304.1	12	3	12	3
Total	**189.6**		**45**		**45**	

The subjects were selected on the basis of a degree of homogeneity of their backgrounds, with the first language being siSwati and English as a second language. The bilingual children were all sequential bilinguals, and had learned siSwati first in the home environment and were then exposed to English in the school setting, which is typical for Swazi bilinguals. Consequently,

in this study, the participants were referred to as English-siSwati bilingual speakers. The use of the term 'English-siSwati' bilinguals was coined on alphabetical considerations. Since the first letter in English comes before the first letter in siSwati it was agreed that it would be best to start with the word English followed by the word siSwati and refer to the bilingual speakers from Eswatini as 'English-siSwati' bilingual speakers.

This study adhered closely to Heilmann's et al. (2010) properties of the Narrative Scoring Scheme (NSS). According to their narrative scoring scheme "academic data were used as inclusionary criteria for the participants, test scores and descriptions of performance. Macrostructure was assessed using the narrative scoring scheme, a tool that provides an overall assessment of a child's ability to produce a coherent, sequential, and detailed narrative. It consists of seven elements (introduction, character development, mental states, referencing, conflict resolution, cohesion, conclusion), each of which is scored holistically on a scale of 1–5 for a possible 35 points total. The NSS prescribes that scores of 1 reflected minimal presence/immature performance, scores of 3 reflected emerging skills, and scores of 5 reflected proficient performance" (pp. 157-158). Heilmann's et al. (2010) version was adapted to suit my participants' performance in each class. Hence each group of participants was divided into three categories based on their performance or achievement levels in each class. The three broad categories used were: the higher/outstanding students, middle/substantial students and the lower/below-average performance group, as is depicted in Table 3.2. The high category comprised of students who had an aggregate of 65% and above, while the middle category consisted of students who had an aggregate between 50-64%, and the lower category obtained below a 50% aggregate. The performance categories were based on the scores obtained for the end of term summative assessments. This process was done in consultation with classroom teachers and subject lecturers on each of the participants' academic records so that there was a fair representation of the calibre of the participants of this study.

Table 3.2 Participant's age group, gender and performance

		Performance			
		Higher	**Middle**	**Lower**	**Total**
Age group	**9 years**	5	5	5	**15**
	13 years	5	5	5	**15**
	Adults	5	5	5	**15**
Gender	**Female**	9	8	10	**27**
	Male	6	7	5	**18**
Total		**15**	**15**	**15**	**45**

In addition, the study classified the participants according to the ages that were needed for the investigation as stated previously. I further classified the participants according to a gender stratum and the level of education that was part of the investigation. The language that the students had as a first and second language was also considered as another stratum to be considered. The stratified random sampling technique had the advantage of ensuring that the sample was representative of all strata that had been specified in the study.

3.5 Data Collection

The procedures for the test development, data collection and recording are described in this section. To collect data for this study, I used a short film/cartoon entitled "The Boy who Learned to Fly, Usain Bolt" (Limbert and Jake, 2016). Parke (2001), Kunene (2010) and Kunene Nicolas (2015) have used a similar method for data collection and it is one of the main reasons this study implemented the usage of a short film/cartoon. This method was successfully implemented in previous studies to study the phenomenon of language production. Moreover, research has shown that films/videos are known to provide more descriptive information (Gibbons et al., 1986) and yield narratives that have higher complexity levels in development when compared to narrative production that recounts a person's experiences (Iglesias et al., 1986).

3.5.1 Procedure

Task 1: Spoken Task

The participant was familiarised ahead of the actual data collection. Getting acquainted with the participant before data collection helps to calm the nerves, fears or shyness that may affect the participant in the situation and the interview. Therefore, I used a research protocol (Appendix J) that has guidelines that help set the interviewee at ease before the interview. The participants watched a wordless film/cartoon from a laptop. They were shown scenes of "The Boy who Learned to Fly, Usain Bolt" (Limbert & Jake, 2016). The participant had to watch the film two times and then they were told to narrate the story to the researcher in both L1 (siSwati) and L2 (English) at different intervals. The participant was asked to recount the story from memory as shown in the wordless short film/cartoon. This performance is thus called storytelling (McNeill, 1992).

Recording of the children was conducted at school in a quiet room that I was allocated to in order to limit the noises from the surroundings. Recording of the adults was conducted in the university classrooms. If during the narration, the participant seemed to have difficulty in remembering the narrative, the interviewer asked certain questions such as 'and then what happened?' or 'what else do you remember?' or the interviewer would repeat the last phrase that the participant used. These specific prompts were given in order not to provide clues to the participant and not to influence the experiment. The researcher collected the L1 and L2 data within similar time frames being cautious of maturational effects.

After I gave the participants task instructions, the study was conducted in each language (English and siSwati) in two sessions of one and a half hours each over a 2 to 4-week period each participant narrated the short film in both L1 and L2 using the oral and the written mode. The first time the participant had to recount the story orally and in writing in L1 in another two weeks later in L2. Research (Miller et al., 2006) has shown that it is best to start in the L1 which is the learner's familiar language and then move on to the L2 which is less familiar.

Each interview was recorded with a camcorder that was placed adjacent to the interviewer and participant. The cameras were placed strategically to focus on capturing the participant's body from the knees to the head and the cameras built-in microphones were used to record the speech during the exchange.

The story starts with a boy running out of a house into the street where he comes across a little dog that chases after him. He runs through two men seated playing a game and he passes into the forest. The boy runs across the field disturbing men playing football. He runs off the field and along the way collides with a man carrying papers. The papers scatter away, and the boy continues to run up some steps.

Table 3.3 Story Structure of "The Boy who Learned to Fly, Usain Bolt" (Limbert and Jake, 2016)

Episode code	Episode description	Narrative schema
A	Coming out of the house	Setting
B	Boy runs with dog	Initiating event
C	Running through the field	Internal response and attempts
D	Collision with man	Consequences
E	Running up the steps	Ending/Reaction

Adapted from Stein & Glenn, (1975; 1979)

The structure of the story "The Boy who Learned to Fly, Usain Bolt" is adapted to the version of Stein and Glenn's (1975) story grammar. The narrative schemas are recurrent, consisting of the narrative schema and a structure of episodes as shown in Table 3.3. The story "The Boy who Learned to Fly, Usain Bolt" was chunked into a story grammar framework (Stein & Glenn (1975; 1979), consisting of five episodes (A-E) with one to eight propositions each. However, the structure episode B-D each has the three schemas (Initiating event, Internal response / Attempts and Consequences) recurring and a setting and a conclusion/coda

Task: 2 Written Task

Once the participants had finished narrating the story verbally to the interviewer based on the short film/cartoon entitled "The Boy who Learned to Fly, Usain Bolt" (Limbert and Jake, 2016), they had to do the writing task in the L1 first. The participants were given a sheet of paper and a pencil/pen immediately after finishing the first task to write down all that they could see in the short/film. It should be noted that each participant narrated the story in both L1 and L2 written

mode. However, at the second visit, there was an attempt to counterbalance the narration of the story by starting first, with the writing task in L2 and then moved on to the oral task in the L2 later.

The oral and written data elicited from the short film in both languages were compared to illustrate the effect of age and the effect of language on English-siSwati bilinguals' production of narratives. Studies have shown that the elicitation method which provides sufficient amount of contextual support and the understanding and familiarity with the narrative topic from previous encounter influences the level of complexity of the narrative production (McCabe & Bliss, 2003).

In summary, the participants were tested in their L1 before the use of their L2 in the production of the narratives as already mentioned. Miller et al., (2006) posits that participants should be tested first in their hypothetically stronger language, so as to increase acquaintance with tasks when they are tested in their second language. This offers participants with ideal support to recount the story. I alternated the sequence of narrating the film in both modes to control the memory effect between testing sessions.

3.5.2 Timesheets

When conducting the study, timesheets were used to record the time taken by participants when narrating the writing tasks in both languages (Appendix L). The timesheets recorded the time the student settled down to write, to the time the student handed in her written task. The timesheets helped keep track of the time the participant used in narrating the story in the written mode. A maximum of 15 minutes was allocated for the written narratives in each language and none of the participants exceeded the time allocated. The shortest time recorded was four and a half minutes in writing, taken by an adult university participant when narrating in siSwati. The longest time used for the written narration was 15 minutes taken when narrating in English by a 9-year-old participant. The time taken by each participant in the spoken mode was automatically recorded by the cam-coder, so there was no timesheets for camera recordings. The longest video recording was in siSwati. It took three minutes and ten seconds, narrated by a university adult. The shortest video recording was in English. It was narrated in 58 seconds, also by a university participant.

3.5.3 Instruments

Video/Short Film

Taking a leaf from Kunene (2010) who used a video as a stimulus for data collection, this study used a different short video/cartoon as a stimulus entitled "The Boy who Learned to Fly, Usain Bolt" (Limbert & Jake, 2016). The use of a contemporary version of a cartoon/film, depicting the story of a black boy, Usain Bolt, who learned to run very fast, has been used successfully in this research to elicit narrative discourse productions which resulted in findings similar to most research findings in this area.

This video/cartoon will help future researchers in the African context with a tool that black children would relate to, instead of the commonly used cartoons/films (such as *Tom and Jerry, Frog where are you?*) which have a western feel and have been over-used around the world. This new tool is an ideal stimulus for the elicitation of narrative productions and was used for the first time to conduct research in Eswatini among Swazi participants ranging from primary school to high school, to university students. This tool is consistent with current literature on the developmental model of multimodal narrative discourse production, even for other languages where reliable tools in this significant field are lacking. The wordless film/cartoon was one minute long after it was cut using editing software from the original cartoon and adapted to suit the elicitation tasks.

The short film is ideal as a data collection tool because both parties (researcher and participant) have access to the wordless short film/cartoon at the time of the narration; hence the participant had seen the cartoon/film and could recount the story (Parke, 2001). There are numerous advantages that come with using recounts of a cartoon or video method for data collection. First and foremost, this method is helpful when studying individuals speaking different languages, of different ages and even to investigate speakers with certain language impairments. Second, this method provides a common denominator due to the cartoon-imagery, semantic content, the sequence of events and more importantly, narrative structure. Last, when researchers are comparing two languages, this specific method allows them to identify trends in the distribution of semantic features across modalities (Mittelberg, 2007).

Research by Jordan (2005) found that television is a medium common in most homes. Children spend much time viewing this medium, hence using this medium to solicit data is ideal especially for children. Moreover, the researchers concluded that children in the USA from low SES homes, assign more time to watch television and video than children from high SES homes. Linebarger and Piotrowski (2010) state the television medium has the distinctive ability to reach young children from all sections of society and is also an important motivating tool for oral and writing skills. For these reasons, the method of using a film/cartoon task is well suited because television is entertaining and naturally captures children's attention and information is presented in visual mode leading to preservative effects on memory. Gibbons et al. (1986) advanced that the use of a short film produced more utterances than book recall and that narrating a film can be more intricate and longer than narratives based on personal experiences (Iglesias et al., 1986). Hence this study used the short film/cartoon as a stimulus for data elicitation.

3.5.4 Data Collection Tools

Apart from the video/short film used as a stimulus, there were also some tools that I used to ensure that the investigation was carried out successfully. These tools included the cam-coder which was placed on a tripod adjacent to the interviewee and the interviewer. I also provided the participants with a pen and piece of paper to write on. The lower grades were provided with pencils.

3.6 Data Analysis

3.6.1 Narratives

This study used four narratives that were elicited from the participants using one elicitation task, a short film/cartoon entitled "The Boy who Learned to Fly, Usain Bolt" (Limbert & Jake, 2016). Tanno (2010) defines referential tasks as narratives where the content of the story is controlled by the researcher by using, for instance, a picture book or a short film to generate a story as opposed to personal narratives where the content is controlled by the narrator. The narrative tasks were all timed, the oral narratives were automatically recorded by the cam-coder while the written ones were recorded manually by the researcher on timesheets. As mentioned previously,

timesheets reflected the times when a participant started writing the narrative up to the time when he/she finished writing.

Narratives are a part of a discourse and they were used as a method tool to elicit written and oral language in order to examine the production of narratives by English-siSwati bilinguals. The instrument used to elicit the narratives was the short film entitled “The Boy who Learned to Fly, Usain Bolt” (Limbert & Jake, 2016). The short film (cartoon) was manipulated to fit the activity of generating sufficient narrative discourse. The film, which was 3 minutes and 15 seconds long originally, was cut down using a snipping tool to fit into a one minute narrative production. The film was cut after the first minute had elapsed so that there was no other further manipulation of other events in the film. Therefore, the short film shows the beginning of the character’s actions and at least five different events that unfold as the character comes into contact with different characters in the film. The film was cut at a very strategic point when the main character climbed the steps all by himself. There was a lot of other action that continued immediately after the character climbed the steps, but the film had to be cut. This was done so that it was not too overwhelming to the young learners and again careful to make a complete sense for the participants while viewing.

To analyse the texts, I used both the descriptive and inferential statistics. Christensen et al. (2019) posit that these are the two broad categories of statistics. They further state that descriptive statistics focus on describing, summarising or explaining a set of data to make it easier to understand the key characteristics. On the other hand, inferential statistics go beyond being descriptive to draw inferences about the populations based on sample data. Therefore, this study analysed the data by exporting it from Excel to SPSS, then used the statistical devices therein.

3.6.2 Written Text and Speech Coding

The written texts and speech productions given by the participant were exact replications of what the participant had said and written in their narrations in both languages. The written texts were transcribed to include all the repetitions and grammatical mistakes written by the participant. The speech was also orthographically transcribed using the transcription conventions for speech (Kunene, 2010) in Appendix M. The verbal transcriptions included all the mazes or disfluencies such as pauses, voice lengthening, repetition, hesitations etc. performed by the participants during

the narration. First and foremost, the examples below were coded into clauses ("a verb matched by its satellites as subject and complement/s", Colletta, et al., 2009, p. 59; Kunene, 2010, p. 37) and then later classified every single clause to represent either a part of a speech act or the entire speech act (such as to narrate, explain, interpret or comment (Colletta et al., 2009, p. 59; Kunene 2010, p. 37).

The following examples have been drawn from all the age groups, from the youngest 9-year olds through the 13-year olds to the university adult age group. The following is an English oral narrative of a learner in the 9-year old group in the top performing category. The student code number is E09F02WN. The first paragraph is the transcription with all the disfluencies / mazes intact just as the learner narrated the story. However, it should be noted that all the disfluencies (repetitions, retractions, fillers, false-starts etc.) were later deleted and not analysed in the final data as per the recommendations by researchers (Curenton & Justice (2004; Curenton & Lucas 2007; Kunene Nicolas 2015, Kunene Nicolas et al., 2017) reporting on this phenomenon. The transcriptions below the paragraph is the narrative broken down into clauses.

3.6.3 Examples of English Verbal Narratives

Example 1: E09F02VN

I saw a child running away xx in her his home he forgot his paper and he // he ran away // a dog chased him and then the dog // get hurt then the boy ran awa:y and he he saw some boys playing soccer and he he kicked the ball and he saw a man reading a paper and he // and ehh fell the papers down and he ran.

Coded example using clauses:

1. I saw a child
2. running away in his home
3. he forgot his paper
4. and he ran away //
5. a dog chased him
6. and then the dog get hurt

7. then the boy ran away
8. and he saw some boys
9. playing soccer
10. and he kicked the ball
11. and he saw a man
12. reading a paper
13. and he fell the papers down
14. and he ran.

Learner E09F02VN produced 14 clauses altogether in this English oral narrative production. What is noteworthy about the narration is that, the narration was filled with many pauses, but covered substantial events in the process, which could be interpreted as a sign that there were mental processes going on in the learner's mind to help in recalling events.

The following narrative production was presented by a learner in the 13-year old group during the English spoken narrative generation. Learner E13M22VN belonged to the middle performing category of the 13-year olds. The first paragraph shows the learner's narrative transcription with all its disfluencies as they were present in the spoken narration, before it was broken down into clauses.

Example 2: E13M22VN

ok, I think a boy was rushing to school (be)cause ahh, at first at the first place, ahh, her, his mother was lifting up his lunch bag ahh, which means he was rushing and when, he was still going around the , the, the, the road ahh, there was a dog trying to attack him i think so, he distracted the dog by going ahh, on top of the table where people were playing ahh, cards, so when he, he was very fast he was very fast and ahh. secondly when he was in the football field he, there was, i think it was a teenager because they were playing soccer and adults don't so, so he, he even left a 16 year old while he's still young and ahh, after that he scored a goal and then he left. i think with my thoughts that, that, that guy like what a fast, fast young man // the end.

Coded example using clauses:

1. I think a boy was rushing to school
2. (be)cause at the first place,
3. her his mother was lifting up his lunch bag
4. which means he was rushing
5. and when he was still going around the road
6. there was a dog trying to attack him
7. i think so
8. he distracted the dog
9. by going on top of the table
10. where people were playing cards
11. he was very fast
12. secondly when he was in the football field
13. I think it was a teenager
14. because they were playing soccer
15. and adults don't
16. so he even left a 16 year old
17. he's still young
18. and after that he scored a goal
19. and then he left.
20. i think that guy like what a fast young man
21. the end.

Learner E13M22VN had 21 narrative clauses in the whole English oral narrative production as shown in the example above. Furthermore, there were many disfluencies in this production such as fillers, repetitions and a pause.

The following example is taken from narrative production of the adult university students' group. Student EAF43VN belonged to the low performing category of the university students. The student EAF43VN presented the English oral narrative production as shown in the first paragraph with all the mazes contained in an oral narration.

Example 3: EAF43VN

ok, first thing the boy was out of the house running which I don’t understand why. Ok, first I thought maybe he was late for school but then the mother calls him back to come get his lunch he doesn’t care he continue running, running x and he finds adults sitting he pounce on them with the table he's chased by a dog and he's entertained that the dog is in fact chasing him instead of saying "go away dog" he's entertaining the dog and then he runs again into the pitch where he finds players playing he joins the pitch and plays the ball instead of // of going away, you see he, he wasn't supposed to go inside the pitch because they were playing, he didn't respect the rules and then he, he played the ball and he scored which was a good thing because maybe he has a skill in that thing. yeah, then he runs he doesn't know why he is running until he passed on an adult and he threw away the papers and he even {laughs} even after throwing the papers he doesn't care he continues to run

Coded example using clauses:

1. first thing the boy was out of the house running
2. which I don’t understand why
3. first I thought maybe he was late for school
4. but then the mother calls him back
5. to come get his lunch
6. he doesn’t care
7. he continue running
8. and he finds adults sitting
9. he pounce on them with the table
10. he's chased by a dog
11. and he's entertained
12. that the dog is in fact chasing him
13. instead of saying "go away dog"
14. he's entertaining the dog
15. and then he runs again into the pitch
16. where he finds players playing
17. he joins the pitch and plays the ball
18. instead of going away,
19. he wasn't supposed to go inside the pitch
20. because they were playing,
21. he didn't respect the rules

22. and then he played the ball
23. and he scored
24. which was a good thing because maybe he has a skill in that thing
25. then he runs
26. he doesn't know why he is running
27. until he passed on an adult
28. and he threw away the papers
29. and after throwing the papers
30. he doesn't care

The oral narrative production above was done by EAF43VN a university student in the adult age group. The oral narrative production yielded 30 clauses. Worth noting, is that there were less hesitations and pauses in the student's oral narration and yet the student was in the low performing category of students in her group.

3.6.4 Examples of siSwati Written Narratives

The following examples below show the written narrative productions in siSwati starting from the 9-year olds, 13-year olds and the university students who were classified as adults. The classification of clauses followed the same description used in the oral narratives above by Colletta, et al., (2009) and Knunene (2010). The siSwati written narrative productions were captured word for word as written by the students, with all the spelling errors and direct translation in English.

Example four below shows a siSwati written narration of learner S09F01WN who belongs to the first group of 9-year olds. This written narrative was taken from the high performing category of students in this group. The written transcription as mentioned earlier on was written exactly as written by the 9-year old. The paragraph that follows in italics is a direct translation in English of the 9-year old's written narration.

Example 4: S09F01WN

Ngibone umfana lebekagijima lomfana bekalandzelwa ngumakwakhe. Lomakwakhe bekungatsi nomake bekabetse kudla lebekutodliwa ngulomfana. Wachubeka wagijima asa gijima wabese ugijimiswa yinja. Lomfana wagijima kakhulu asagijima bekunabo babe lababili bebadlala. Labobabe bebahleli etitulweni badla tukwe litafula. Lomfana wafika wagijimela tukwalelitafula lalabo babe lomdlalo walabobabe wabese akasachubeki. Lomfana wagijima wate wafike kulomunye babe lebe abuke phansi afundze emaphepha lomfana asagijima wangcuzula lobabe ate lamaphepha awa lobabe wamubuka kuphela lomfana wagijima asagijima bekunetitebhisi letiningi lomfana watihamba asahamba kwabese kuyaphela.

*I saw a boy running the boy was followed by his mother. The mother was like or she was carrying food which was to be eaten by the boy. He continued running while running he was chased by a dog. The boy ran very fast while running there were two men eating. The men were sitting on the chairs eating on the table. The boy ran over the table that the men were eating on and the men stop playing their game. The boy run until he came to another man who was reading papers the boy while running he knocked the man and the man's papers fell and the man just only looked at the boy while running while running there was a flight of stairs and the boy walked up and the story came to an end.**(translation)***

Coded example using clauses:

1. Ngibone umfana
2. lebekagijima
3. lomfana bekalandzelwa ngumakwakhe
4. Lomakwakhe bekabetse kudla
5. lebekutodliwa ngulomfana.
6. Wachubeka wagijima
7. asa gijima
8. wabese ugijimiswa yinja.
9. Lomfana wagijima kakhulu
10. asagijima
11. bekunabo babe lababili bebadlala.
12. Labobabe bebahleli etitulweni
13. badla tukwe litafula.
14. Lomfana wafika
15. wagijimela tukwalelitafula lalabo babe
16. lomdlalo walabobabe wabese akasachubeki.
17. Lomfana wagijima

18. wate wafike kulomunye babe
19. lebe abuke phansi
20. afundze emaphepha
21. lomfana asagijima
22. wangcuzula lobabe
23. ate lamaphepha awa
24. lobabe wamubuka kuphela lomfana
25. wagijima
26. asagijima
27. bekunetitebhisi letiningi lomfana watihamba
28. asahamba kwabese kuyaphela.

The siSwati written narrative had 28 clauses altogether. What is worth noting about this 9-year old's narration above is that it is quite long and covers most of the events shown in the video. However, the learner's last sentence was a run on sentence as if they were talking in their written narrative production.

The following example is a written narrative text of learner S13F23WN from the group of 13-year olds, in the middle performing category. The first paragraph is the word for word written narrative of the 13-year old and the paragraph in italics is a direct translation in English of the siSwati version.

Example 5: S13F23WN

Ngibone umfana lophume ekhaya agijima washiya kudla kwakhe make wakhe wazama kumnika lokudla kopha wangakutsatsi. Watsi asagijima wahlangana nenja leyozama kumluma **wachupheka** (selling error) wabaleka yona yamlandzela ngemuva solo izama kumluma lenja yagcine **ingcuze** (spelling error) ematafuleni. Lomfana uchubekile wagijima wagcina afike *in a ground* labekudlala bantfu ibhola, wagijima nabo wagcine ashaye lebhola wakora ligoli. Wachubeka lomfana wagijima wagcina wendlula lomunye babe lobekaphetse emaphepha, watsi makengca waphephukisa lamaphepha lobabe *wa smiler.*

I saw a boy who is coming out home running he leaves his food and his mother tries to give him the food but he did not take it. When he was running he came across a dog that tried to bite him he continued (spelling error) running and it followed after him still the dog trying to bite until it knocked (spelling error) on the tables. The boy continued running and came to a playground

where people were playing football. He ran with them until he kicked the ball and scored a goal. The boy continued running past another man who was carrying papers. When he passed the man he blew the papers and the man just smiled. ***(translation)***

Coded example using clauses:

1. Ngibone umfana
2. lophume ekhaya agijima
3. washiya kudla kwakhe
4. make wakhe wazama kumnika lokudla
5. kopha wangakutsatsi.
6. Watsi asagijima
7. wahlangana nenja
8. leyozama kumluma,
9. wachupheka wabaleka
10. yona yamlandzela ngemuva
11. solo izama kumluma lenja
12. yagcine ingcuze ematafuleni.
13. Lomfana uchubekile wagijima
14. wagcina afike *in a ground*
15. labekudlala bantfu ibhola,
16. wagijima nabo
17. wagcine ashaye lebhola
18. wakora ligoli.
19. Wachubeka lomfana wagijima
20. wagcina wendlula lomunye babe
21. lobekaphetse emaphepha,
22. watsi makengca
23. waphephukisa lamaphepha
24. lobabe wa *smiler.*

What can be noted about S13F23WN written narration is the minimal use of punctuation marks especially the comma to avoid the run-on sentences. At this level (grade 8) they are familiar with how to punctuate written language. Furthermore, the written narrative is fraught with spelling mistakes, interestingly in her first language. Another interesting thing about this narrative is the use of English words in writing that is, *code switching* even in writing.

The following example was taken from the adult age group with university students. The student SAF45WN belongs to the lowest performing category of the adult group. The siSwati written narrative was copied exactly as it is in the example below.

Example 6: SAF45WN

Ngibone ivedeo (spelling error) lemayelana nemntfwana lomcane loluhlobo lolutsandza kudlala nekwenta tonkhe tintfo kanye kanye.
Ekucaleni lomfana ngimbone avalelisa unina wakhe wase uyaphuma endlini ngalesikhulu sivinini.

Ugijima efike lapho kunebantfu labahleli etafuleni angabavuseli, avele azube etulu ematafuleni. Ugijima, agijime efike lapho khona akhandza labadlala ibhola, abamuke ibhola emvakwesikhatsi achubeke agijime.

Lomfana ubabela njalo ngelitubane aze **aciné** (spelling error) lapho khona atfola lomunye umnakabo atiphatsele tincwadzi atihlutfule kuye bese tisakaka emgcwacweni yena achubeke adlala nalabanye bangani bakhe.

I saw a video (spelling error) about a young child who is the type that likes to play and doing all things at the same time. At first I saw the boy waving goodbye to his mother and he came out of the house at a very high speed.

He ran up to where there were people sitting on a table and he did not greet them,but jumped on top of the tables. He continued to run until he comes across people playing soccer, he takes their ball and after a while continued running.

They boy continued to run until (spelling error) he finds a brother carrying books and he snatched them from him and they scatter on the road and he continued playing with his friends. ***(translation)***

Coded example using clauses:

1. Ngibone ivedeo lemayelana
2. nemntfwana lomcane loluhlobo lolutsandza kudlala
3. nekwenta tonkhe tintfo kanye kanye.
4. Ekucaleni lomfana ngimbone

5. avalelisa unina wakhe
6. wase uyaphuma endlini ngalesikhulu sivinini.
7. Ugijima efike lapho kunebantfu
8. labahleli etafuleni
9. angabavuseli,
10. avele azube etulu ematafuleni.
11. Ugijima,
12. agijime
13. efike lapho khona akhandza labadlala ibhola,
14. abamuke ibhola
15. emvakwesikhatsi achubeke agijime.
16. Lomfana ubabela njalo ngelitubane
17. aze agcine lapho khona atfola lomunye umnakabo
18. atiphatsele tincwadzi
19. atihlutfule kuye
20. bese tisakaka emgcwacweni
21. yena achubeke adlala nalabanye bangani bakhe.

This narration is made up of 21 written siSwati clauses. What is interesting about this siSwati written narration of student SAF45WN is the fact that, the student followed the writing conventions and wrote the story in paragraphs making sure there was sufficient punctuation to make the story easy to follow. However, there were two spelling mistakes in the written text, one was the spelling error of video and the other one was the failure to spell correctly a siSwati word.

In summary, what can be noted in the examples used here, is that the longest oral narrative in English was produced by the adult age group while the longest written narrative was written by a 9-year old. This is not surprising because the 9-year olds are more comfortable in writing in their first language to an extent that they did not have any spelling errors in their writing compared to the 13-year olds and the adult university group. More examples of written and oral English and siSwati transcriptions have been attached in Appendix N-Q.

Once this phase was completed, I then classified the written transcriptions and oral utterances into clauses, which in this case are defined as "predicate matched by one, two or three arguments, or a continuation of words including a verb matched by its satellites as subject and complement" (Wittenburg et al., 2006, p.38; Colletta, et al., 2009; Kunene, 2010). In simpler terms, clauses are regarded as units of meaning that are bound to a verb. The oral tasks administered to the subjects were coded on *ELAN,* a linguistic annotation tool created by the Max Planck Institute (Max Planck Institute for Psycholinguistics, 2019) as shown in Figure 3.2.

Classifying the written and oral utterances into clauses aids the researcher(s) in verifying the developmental change towards complex syntax. A coding grid for studies of this nature was used having been adapted from Colletta's (2009) coding manual and also as used in the work of Kunene (2010). The coding grid states specifically materials that cover discourse structures, words and pragmatics. Furthermore, other utterances such as fillers, hesitations, repetitions and other non-verb governed phrases were coded, but not counted as clauses. Coding for this study included the annotation of speech and writing only. Participant background data and their scores were transported from ELAN into Microsoft Excel and then exported into a SPSS 16 statistical package for data analysis. The descriptive statistics provided information about the means and standard deviations.

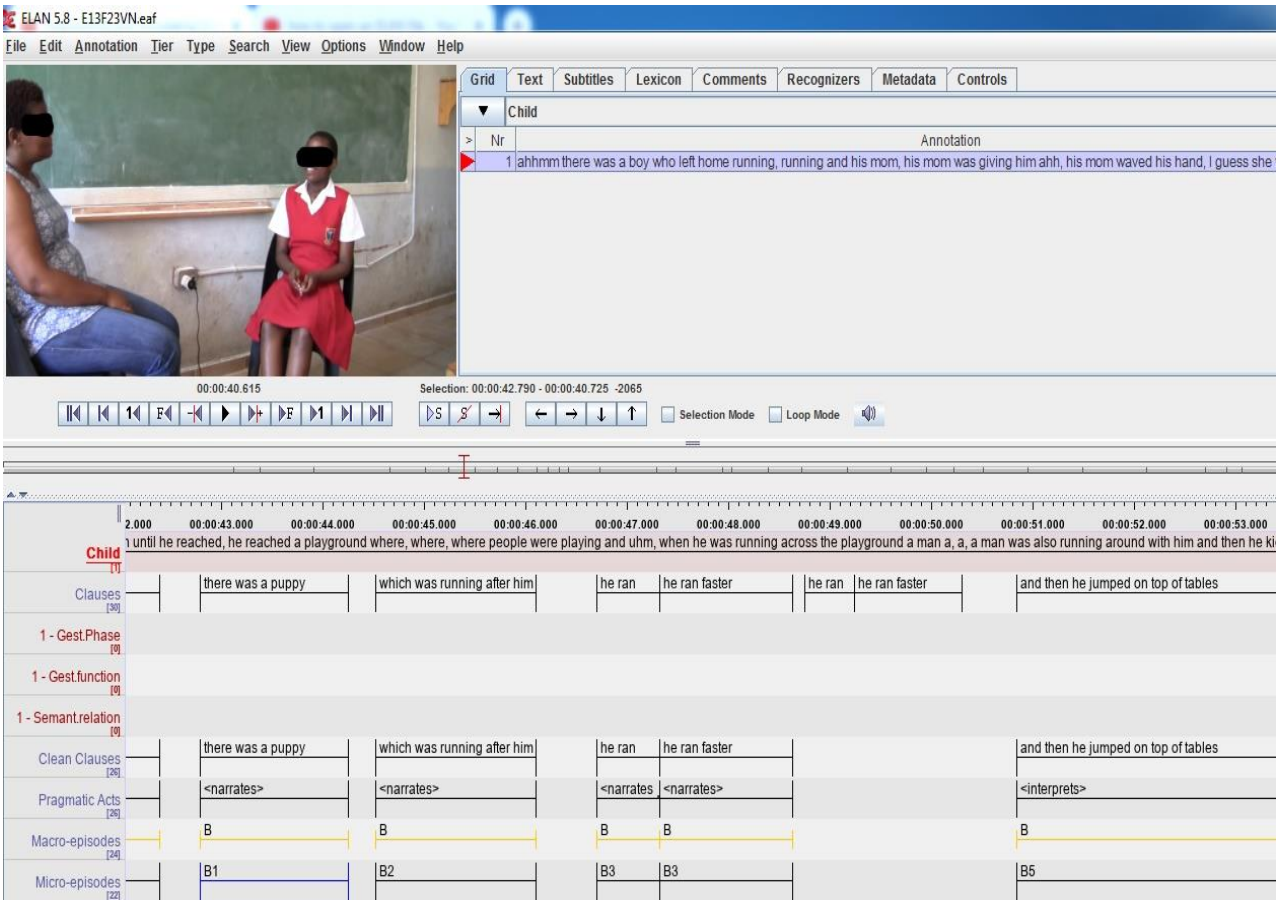

Figure 3.2 Extract of ELAN windows file

3.6.5 Annotation of Language Structures

The aim of this work was to enhance understanding of information on the processing demands presented by the two languages across school-age into adulthood. Once the written and oral transcriptions had been accomplished, the next step was selecting relevant linguistic variables, since I was working from a cross-linguistic perspective. SiSwati is an agglutinative language and English is an analytic language, therefore the linguistic coding was adapted to the language considered.

a. Clauses Glossing

The next phase was to categorise the oral and written transcription into clauses to substantiate the developmental change in the direction of complex syntax. The number of clauses contained in a story provide a clear indication of its informational quantity, which is most likely to grow with age (Colletta et al., 2009; Kunene, 2010). Employing their grammatical approach, I defined a clause as a continuation of words, including a verb matched by its satellites as subject and complement/s.

The following examples from English and siSwati illustrate how I coded for a clause:

a) (i) The boy runs out of the house. (English Oral)

This was coded as one clause as it had one verb predicate ‘runs’ in it.

(ii) The boy slips and (the boy) falls down by the corner. (English Written)

This was coded as two clauses as it had two verb predicates ‘slips’ and ‘falls’ in it.

b) (i) Umfana uphuma endlini uyagijima. (siSwati Oral)

(The boy leaves the house he’s running.)

The boy leaves the house running.

This sentence was coded as having two clauses as it has two verb predicates ‘phuma’ (root for ‘leaves’) and ‘gijima’ (verb root for run) in it.

(ii) Lomfana uwisa phasi emaphepha alomunye bhuti.

(The boy throws down papers for another man.)

The boy throws down another man's papers.

The sentence was coded as having one clause as it has one verb predicate 'wisa' (root for 'throw')

b. Word-Glossing

The next phase was to segment words from the clauses to allow for finer syntactic analysis (Kunene, 2010). The definition of a word had to be described as a unit to allow for the syntactic coding of siSwati. The following examples illustrate:

c) I saw a boy kicking a ball. (English Written)

Word segmentation = 7 words in English.

d) Ngibone umfana akhahlela ibhola. (siSwati Written)

I saw a boy kicking a ball.

Word or unit segmentation = 4 words/units in siSwati

Kunene (2010) found that isiZulu is an agglutinating language coming from the Nguni language family and the use of affixes had no major effect on the discourse capabilities of the children they analysed. The results show that the affixes in siSwati had a similar function as word blocks in analytical languages such as English and would not have a direct impact on the pragmatic level because siSwati also belonged to the Nguni language family. Therefore, prefixes and suffixes in siSwati had no effect on the narrative, hence the analyses proceeded with the word or unit segmentation which corresponded to the word unit in English. More samples of written and oral narrative extracts appear in Appendix N-Q

3.6.6 Discourse Narrative Level

To study the effect of language and age on pragmatic and discourse dimensions of the narrative action, as shown by some researchers (Berman & Slobin, 1994; Hickmann, 2003), I then classified every single clause to represent either a part of a speech act or the entire speech act (such as to narrate, explain, interpret or comment (Colletta et al., 2009, p.59; Kunene 2010, p.37). The pragmatic type of clauses are as follows:

a) “Narrating: when the speaker tells the event such as it happens in the cartoon (e.g. ‘There was a mother bird in the nest’);
b) Explaining: when the speaker adds precision of a causal nature to the narrated event (e.g. ‘The mother bird left the nest because it was hungry’);
c) Interpreting: when the speaker presents an inference or an interpretation concerning the situation or the intentions of the characters (e.g. ‘It looked at the time and realises it time to fetch food’);
d) Commenting: when the speaker presents information that is neither explicit nor implicit of the course of the events but presents a ‘meta-narrative’ comment relating to a character, an action or any aspect of the story, or a ‘para-narrative’ comment relating to the action of telling the story-judgement, personal appreciation (e.g. ‘It is a crazy bird’ or ‘It made me laugh when the little bird destroyed everything in the house’)”.

3.6.7 Examples of English Oral Pragmatic Clauses

The following tables present how the clauses were categorised under pragmatic acts. The examples used here were drawn from examples 1-6 in section 3.6.2. Example 7 shows some examples of pragmatic clauses extracted from the English oral narrative production of 9-year old, 13-year olds and university adults.

Example 7: English Oral Pragmatic Clauses

Age Group	Clause	Pragmatic clause
9 years	1. I saw a child	Narrates
	5. a dog chased him	Narrates
13 years	13. I think it was a teenager	Interprets
	14. because they were playing soccer	Explains
Adults	19. he wasn't supposed to go inside the pitch	Comments
	20 because they were playing	Explains

The pragmatic clauses in example 7 range from pragmatic act clause of narration, interpretation, explanation and commentary. What can be gathered from their distribution is that

the 9-year olds predominantly use the pragmatic act clause of narration while the 13-year olds and the adult age group use a mixture of pragmatic act clause of interpretation, explanation and commentary in their English oral narrative production.

3.6.8 Examples of siSwati Oral Pragmatic Clauses

Example 8 below presents the pragmatic clauses taken from the siSwati written narratives of the 9-year olds, 13-year olds and adult age group.

Example 8: SiSwati Written Pragmatic Clauses

Age Group	**Clause**	**Pragmatic clause**
9 years	8. wabese ugijimiswa yinja.	Narrates
	9. Lomfana wagijima kakhulu	Narrates
13 years	10. yona yamlandzela ngemuva	Narrates
	11. solo izama kumluma lenja	Interprets
Adults	5. avalelisa unina wakhe	Interprets
	6. wase uyaphuma endlini ngalesikhulu sivinini.	Narrates

The type of pragmatic clauses that were common in the siSwati written narratives were the pragmatic clause of narration, commentary and interpretation. Again, the 9-year olds predominantly used the pragmatic clause of narration while the older groups had a tendency of using both the pragmatic clause of narration and interpretation.

a. Discourse Macro-structural and Micro-structural Level

The short film/cartoon "The Boy who Learned to Fly, Usain Bolt" was segmented into macro-episodes and micro-episodes. Narrative proficiency is comprised of two important areas: macro-structure and micro-structure. Montanari (2004) states that macro-structure entails the ability to put into words a structure of events (the structure of the whole storyline), story grammar

(reflecting the cognitive schema) and making inferences about characters' intentions (Kunene Nicolas, 2015; Peristeri, Andreou & Tsimpli, 2017). Similarly, other researchers (Heilmann et al., 2010; Stein & Glenn, 1975) postulate that macro-episodes are the higher-order hierarchical organisation of the narrative as well as story grammar. On the other hand, micro-structure provides a measure of narrative discourse skills and language capacity. This denotes cohesive ties, the ability to produce language complexity structures such as productivity measures (such as number of clauses, the number of words), diversity in lexicon, complexity in language (such as sentence length), and morphosyntactic quality (which entails certain kinds of words and sentences) that make up the narrative (Fiestas & Peña, 2004; Bedore et al., 2010; Squires et al., 2014; Hipfner-Boucher et al., 2015). Most of these studies paid more attention to structural features. In this study, the analytic scheme was designed to capture the learner's knowledge about the narrative requirements for both written and oral contexts.

The narrative content is further categorised as macro-episodes, as shown in Table 3.4, while micro-episodes are attached in Appendix K. During the annotation process, each clause with narrative content was categorised as processing one of these macro- and micro-episodes to indicate to us what participants are able to recall from the narrative and also assist in approximating the extent of the degree of accuracy of retelling the story by each subject, as well as to study their processing of the event frame (Fayol, 1997). These macro-episodes indicate what participants are able to recall from the narrative and also assist in approximating the extent of accuracy. It should be noted that several clauses may be assigned to a single macro-episodes. Similarly, several clauses may also be assigned to a single micro-episode. On the other hand, a clause may be assigned neither a macro-episodes nor a micro-episode (Colletta et al., 2009; Kunene, 2010). There are five episodes in the story, defined and identified independently from linguistic material. Each episode involves some changes (for instance, location, event, character) in the scene from the previous episode. The macro-episodes are summarised in Table 3.4.

Table 3.4 List of macro-episodes

Episode code	Episode description
A	Coming out of the house
B	Boy runs with dog

C	Running through the field
D	Collision with man
E	Running up the steps

3.6.9 Variables to Analyse

a. Independent Variables

The independent variables for this study were modality, language and age. These are the oral and written modalities to be considered for analysis from two languages, English and siSwati, from three age groups, 9-year-olds, sometimes referred to younger children, 13-year-olds, sometimes called older children, and adults.

b. Dependent Variables

The dependent variables were categorised into three: the narrative length, pragmatics and macro-structural analysis. The narrative length was measured in terms of the number of clauses and the number of words. Pragmatics was measured in terms of the pragmatic acts of narration, commentary, interpretation and explanation types of clauses. Macro-structural analysis was measured in terms of the number of clauses in macro- and micro-episodes. So, there was an analysis of narrative clauses in different dimensions which were analysed in order to assist the researcher in drawing conclusions about the relationships and predictions amongst the variables.

3.7 Inter-rater Reliability and Validity

The importance of any research comes from the strength of its results and the extent of its contribution to the body of knowledge (Schiavetti & Metz, 2014). Population validity defines how well an answer provided by research is able to be generalised to the entire population (Christensen et al., 2019). In order to reach informed conclusions from the collected data, I guarded against all possible elements that could potentially account for the results. So, internal validity was taken care of by matching all the participants on performance, geographical area and using well-established measures, using culturally appropriate tests, and using the quantitative method to describe how the bilinguals produce narratives. Furthermore, I described the selection of participants in detail and also conducted the research in a real-life public-school setting and university.

Reliability is the ability of the research instrument to come up with the same result (Christensen et al., 2019). To safeguard reliability in this study, three raters were involved to measure the degree of consistency. Testing for all participants was carried out by the researcher and three coders who have specialised in linguistics and have been involved in numerous studies as coders, in similar commotion-free classrooms. The three coders all reached an inter-rater reliability agreement of 97% on the data transcribed. This result indicates that there was strong reliability implying that the set of data rated represented a similar phenomenon and that our consistency was appropriate. Once the video transcriptions and written transcriptions were discussed and agreed upon by the different coders they were then broken down into macro- and micro-structures, after Kunene's (2010) method of analysis.

3.8 Ethical Consideration

Ethical issues are a crucial and integral part of research, particularly where human beings are the main focus of the investigation, and more especially, research conducted with children in educational settings (Santrock, 2010). All ethical procedures, in accordance with the Witwatersrand University's Ethics Committee, were met (Ethics protocol number: H17-09-18 in Appendix A). Permission to conduct the present study in public school settings was obtained from the Ministry of Education and Training (Appendix B). Permission was also sought from the university in order to be able to conduct research with students within the university premises (Appendix C). Furthermore, research consent from the parents/guardian was obtained (Appendix I). Additionally, the information sheet explained to the participants as to why the research was conducted and the processes to be followed and used were explained and that the assent and consent forms from the participants' parents were received by the researcher (Appendix D, F, and H) and the consent forms for the adult participants appear in Appendix E. For the minor participants, assent to participate was obtained from them after the purpose of the research was explained orally. A letter written in simple language for children explaining the purpose and procedures to be followed during the research was obtained and attached in Appendix G.

These documents informed the participants so that they fully understood the objective of the study and what they were asked to do. Furthermore, they were informed of any potentially negative or positive consequences. This allowed them to take part in the study as willing participants. Also, taking part in the study was not forced upon the participants and the participants

were allowed to stop at any time they so wished. So, the participants were not compelled to give the cause for refusing to take part in the investigation or even suffer any prejudice. Participants' identities were kept anonymous by using a file name extension which blurred any identifying information in the study report. The file structure was created to differentiate between the two languages tested, to differentiate between children and adults and also the gender of the participants. Only the researcher and the researcher's supervisor were privy to the original names of the participants. Most importantly, results, as well as suggestions of the study, were made available for discussion with the respective schools and parents following the arrangements agreed upon.

3.9 Statistical Analysis

The statistical significance of age was evaluated using a repeated-measures ANOVA. The repeated-measures ANOVA, or mixed ANOVA, was used to test for the main effect of age for each measure of narrative production and whether there was an interaction between age and language; it also tested for similarity between subjects. The interaction between age and language was also explored. In the second hypothesis, the two languages were compared on each of the measures of narrative production using a dependent samples t-test for both modalities. The significance level was set at $p < 0.05$. All statistical analyses were conducted with SPSS.

3.10 Summary

In this chapter, there was an introduction which sought to explain the main aim of the study together with the hypotheses to be tested during the investigation. The research method of this study was discussed and the most fitting method to carry out this research was identified as the quantitative method. Once the quantitative method was identified, I opted to use the correlational research design which falls under the umbrella of the quantitative methods because this study's main aim was to describe, explain and make predictions about the relationships among its variables. Furthermore, this chapter discussed the sampling criteria and technique used to obtain the relevant population suitable for this study. The study took place in Eswatini and the participants met all the criteria designed for the study such as age, gender and languages considered in the research. A stratified random sampling technique was used to obtain the three different performance categories that were also of prime importance in carrying out the study. The data for

this study was collected by using a short wordless film/video and two narratives (written and spoken) were elicited for the purposes of this study. Various tools were used to assist in gathering the data for the research such as the use of a cam-coder, writing sheets and pens. The data was analysed using different types of statistical measures and the narratives were analysed using macro-structural and micro-structural levels. Inter-rater reliability and validity of the study were considered. The data was validated by three coders to make it possible for the results of this study to be generalised to a larger population. Finally, the ethical considerations of the participants were taken into account and the participants completely understood the objectives of the study and fully consented to it. Their identities were obscured, as agreed upon. The chapter that follows discusses the results of the investigation.

CHAPTER 4 QUANTITATIVE ANALYSIS OF RESULTS

4.1 Introduction

This chapter provides quantitative data regarding measures of narrative production by age and language, produced through narrating stories orally and in writing. The hypotheses were tested using a paired/dependent samples t-test and a mixed analysis of variance (ANOVA). The independent variables were modality, age and language. The dependent variables were analysed through the number of clauses, the number of words, types of pragmatic acts, and macro-episodes as measures of narrative ability (Table 4.2). The significance level was set at $p < .05$. For the purposes of this chapter, the terms oral and spoken will be used interchangeably.

This chapter presents the findings related to each research question.

Research Questions

What affects the cognitive processes of sequential bilinguals when producing narratives?

1. What is the effect of age when children and young adults produce narratives?
2. What is the effect of language when English-siSwati bilinguals produce narratives?

From the initial 60 participants that took part in this study, 15 were discarded on the basis of poor audio quality and not completing all the tasks given. The following analysis is based on the results of the 45 participants who produced a total of 180 oral and written narrative tasks in both languages. Table 4.1 demonstrates the total number and the mean age of the participants for the English and siSwati data.

Table 4.1: List of English-siSwati participants

Age group	**Number of participants**	**Gender**	**Age range in years**	**Average age in years**
Group 1	15	8 males 7 females	9	8,5
Group 2	15	7 males 8 females	13	12,6
Group 3	15	3 males 12 females	Adult	24,5

Age was defined as ‘group’ and I will thus use the terms ‘group’ and ‘age’ interchangeably throughout this study. The terms females and males will be used to refer to all our participants.

4.2 Variables

4.2.1 Independent Variables

The independent variables were age, modality and language. Participants were grouped into three groups (Group 1 for 9-year-olds; Group 2 for 13-year-olds; Group 3 for adults).

4.2.2 Dependent Variables

The dependent variables together with the individual items analysed are listed in Table 4.2.

Table 4.2 List of dependent variables

Variable	Item analysed
Narrative length	- Number of clauses - Number of words
Pragmatics	- Types of pragmatic acts - Narrative pragmatics acts - Non-narrative pragmatics acts
Semantics	- Episodes - Macro- and micro-episodes

The narrative production of English and siSwati languages are explored and the effect of age examined for several measures of narrative ability.

1) What is the effect of age when children and young adults produce narratives?

This is the following hypothesis that is tested:

Hypothesis 1

- There will be no effect of age when children and young adults produce narratives. (H0)
- There will be an effect of age when children and young adults produce narratives. (H1)

I checked all modalities in all languages of these bilingual speakers but there was no statistical significance and so the following analyses will look at individual languages. I will start first with English (oral and written) narratives. The second section will explore siSwati (oral and written) narratives and the third section will look at the comparison between English and siSwati.

In this section, English language narrative production is explored, and the effect of age studied for several measures of narrative production.

4.3 Effect of Age on Oral English Narratives

This section presents the effect of age on oral English narrative discourse production.

4.3.1 Length of Narratives

The length of the narratives was measured by studying the utterance length of discourse, which are the clauses and words of all the participants who spoke in English.

Table 4.3 Mean number of English oral clauses and words

Age	**Mean (sd) clauses**	**Mean (sd) words**
9 years	11.2(4.81)	90.93(38.29)
13 years	14.13(4.32)	123.67(38.88)
Adults	12.47(4.75)	119.6(40.01)

Using the measure of number of clauses and number of words, I calculated the length of oral narratives per age group (Table 4.3). I observed that the 9-year-old's narratives had the lowest means in both the number of clauses and number of words while the older children, 13-year-olds, had the highest mean in both measures of narrative production. Both the means for the adults' narrative productions were moderate. The descriptive statistics mean that there is an increase of number of clauses between the 9-year-old age group and the 13-year-old age group, but there seems to be a drop in the average between the 13-year-old age group and the adults. Furthermore, a comparison of the means by age was also significant, showing that the number of words differed by age after accounting for language and modality. Adults presented more words compared to the 9-year-olds but there were no significant differences in any other pairwise comparison.

An ANOVA was performed and I observed that there was no statistical significance on the number of clauses ($F(44) = 1.512$), $p < 0.232$) and words ($F(44) = 3.129$), $p < 0.054$). This means that age did not have a great influence on the number of clauses and number of words in the English oral narratives, hence there was no significant effect of age on the number of clauses and number of words.

4.3.2 Pragmatic Structure of Narratives

In analysing the discourse structure of the narratives of this study I used the pragmatic acts of the clauses as the measure of narrative production. The pragmatic acts are classified into four types: the pragmatic acts of narration, commenting, interpreting and explaining. In the analysis of

the English oral pragmatic speech acts, it was noted that the highest pragmatic act was the narrative pragmatic clause at 60.8% of the total number of pragmatic act clauses in all age groups (Table 4.4).

Table 4.4 English oral pragmatic acts per age

Age	**Narrates**		**Comments**		**Interpret**		**Explain**		**Total**
	#	**%**	**#**	**%**	**#**	**%**	**#**	**%**	
9 years	107	75.4	15	10.6	19	13.4	1	0.7	142
13 years	124	62.9	24	12.2	41	20.8	8	4.1	197
Adults	84	46.9	36	20.1	52	29.1	7	3.9	179
Total	315	60.8	75	14.5	112	21.6	16	3.1	518

It can be observed from the descriptive statistics that complexity in terms of discourse structure shows an increase of the use of the "non-narrative pragmatic clause" and a decrease of the narrative pragmatic clause as the age increases. The adults had a total of 46.9% narrative pragmatic act type of clause and the remaining 53.1% was made up of the non-narrative pragmatic act type of clause while the contrary can be observed from the children's data. A higher percentage (75.4%) of the younger children's production was the narrative pragmatic clauses and 24.6% were the non-narrative pragmatic clauses. Indeed, in the data, there is a reduction in the narrative level and a growth in the non-narrative level by means of age.

To enhance understanding of the development of pragmatic heterogeneity, some statistical analysis was conducted. A summary of the mean numbers of pragmatic act clauses per age group is indicated in Table 4.5.

Table 4.5 Mean number (SD) of oral pragmatic type of clauses per age group

Age	**Narrates**	**Comments**	**Interprets**	**Explains**
9 years	7.13(4.02)	1.00(0.85)	1.27(1.22)	0.07(0.26)
13 years	8.27(3.92)	1.60(1.24)	2.73(1.03)	0.53(0.64)
Adults	5.60(3.68)	2.40(2.13)	3.47(1.60)	0.47(0.52)

I performed an ANOVA, with age as a between-subjects factor. Results showed that there was no significant effect of age on the number of narrative pragmatic clauses ($F(2,42) = 1.790$, $p < 0.179$). A comparison of the means by age was not significant, showing that the number of narrative pragmatic clauses did not differ by age after accounting for language and modality.

However, there was a significant effect of age on the non-narrative pragmatic clauses. A detailed analysis of the non-narrative pragmatic clauses shows that there was a substantial effect of age on English oral pragmatic act of commentaries ($F(2,42) = 3.266$, $p < 0.048$) and Bonferroni post hoc tests showed that adults presented significantly more comments when compared to 9-year-olds but the other comparisons were not significant. On the pragmatic act of interpretations the age effect was significant too ($F(2,42) = 11.041$, $p < 0.000$), and the post hoc tests showed that 9-year-olds presented significantly fewer interpretations compared to both the 13-year-olds and adults, but there were no differences between adults and the 13-year-olds. The effect of age on pragmatic acts of explanations was also significant ($F(2,42) = 3.859$, $p < 0.029$) and Bonferroni post hoc tests showed that 13-year-olds presented significantly more explanations compared to 9-year-olds, but there were no differences in any other comparisons.

Figure 4.1 indicates that there was no difference in the number of narrative pragmatic clauses produced across the age groups but there was a significant difference in non-narrative pragmatic clauses in terms of age.

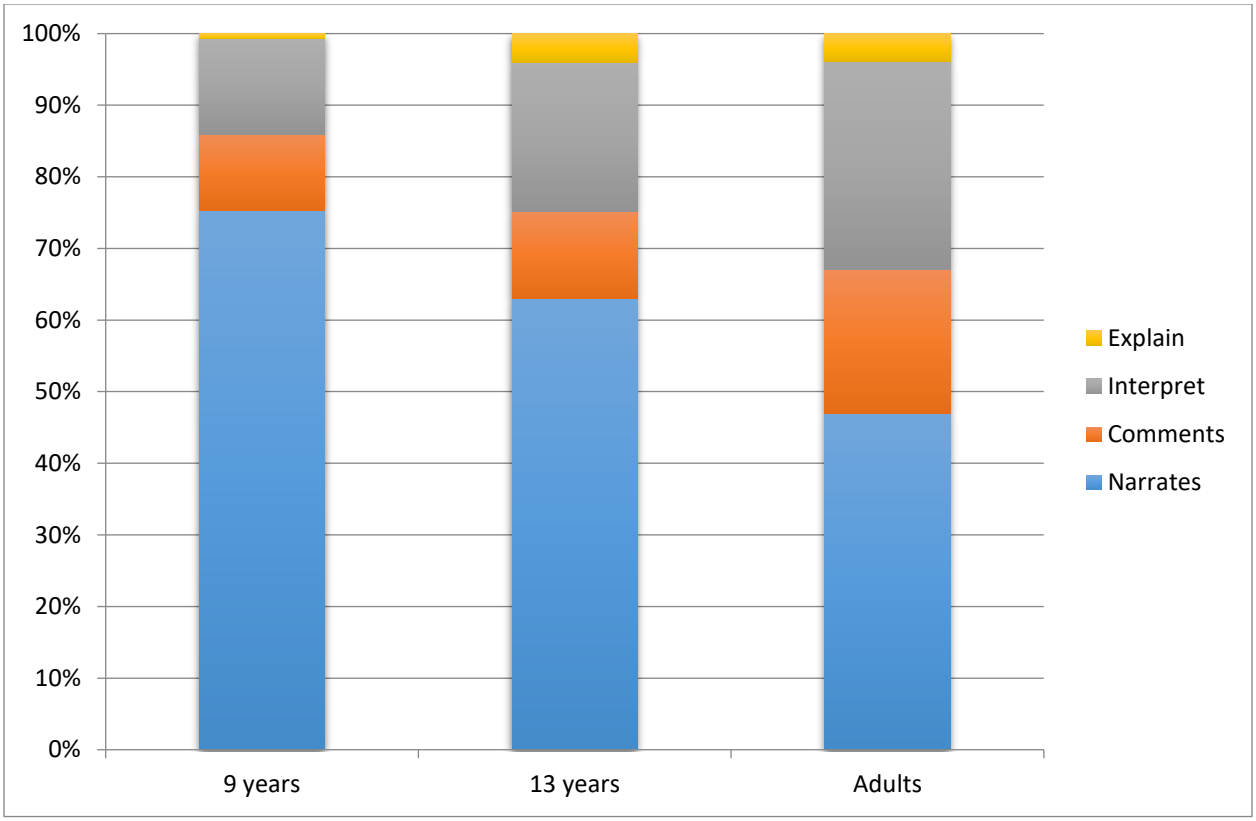

Figure 4.1 Number of English oral pragmatic acts per age group

As mentioned previously in Table 4.4, adults' narrative productions tended to have a greater amount of non-narrative pragmatic clauses. I displayed the two major categories of the pragmatic act type of clauses (narrative pragmatic clauses and "non-narratives pragmatic clauses") in Table 4.6. This arrangement on the oral pragmatic clauses presented a clearer interpretation of the effect of age on pragmatic clauses.

Table 4.6 Mean number of English oral narratives and non-narratives

Age group	**Mean number of narratives (SD)**	**Mean number of non-narratives (SD)**
9 years	7.13(4.02)	2.33(1.40)
13 years	8.27(3.92)	4.87(2.13)
Adults	5.6(3.68)	6.33(3.11)

The results from the ANOVA show an overall significant effect of age on the number of non-narrative pragmatic clauses ($F(2,42) = 11.395$, $p < 0.000$) and post hoc tests showed that adults and 13-year-olds presented significantly more non-narrative pragmatic clauses compared to 9-year-olds but the difference between adults and 13-year-olds was not significant even though adults seemed to present higher non-narrative pragmatic clauses.

Complex pragmatic clauses are noticeable when putting together the non-narrative pragmatic clauses and narrative pragmatic clauses as Figure 4.2 demonstrates. "Non-narrative pragmatic clause" production increased with age; adults had a larger quantity of non-narrative pragmatic clauses compared to the child age groups. That means 13-year-olds had more non-narrative pragmatic clauses compared to the 9-year-olds and adults had more non-narrative pragmatic clauses compared to 13-year-olds. On the contrary, the "narrative pragmatic clause" production decreased drastically as the age increased; the adults had less oral narrative pragmatic clauses when compared to the 13-year-olds and the 9-year-olds.

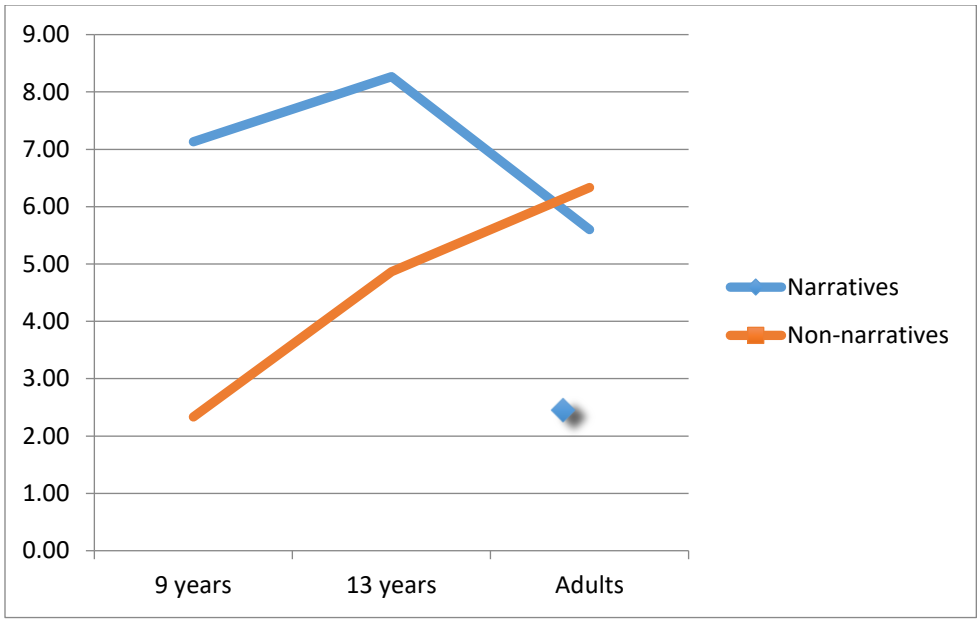

Figure 4.2 Mean number of English oral narratives vs mean number of non-narrative pragmatic clauses

4.3.3 English Oral Macro-Structural Analysis

The cartoon was segmented to assist in analysing the structural characteristics of the entire narrative (Chapter 3). It was segmented into five macro-episodes. Each macro-episodes structure contains each main clause with narrative content. Then there are minor clauses with narrative content called micro-episodes. The macro- and micro-episodes are helpful in the estimation of the degree of accuracy of the story narration and also help to study the subject's processing of the event structure. From the descriptive analysis of the English oral macro-episodes structure, it is evident that all the macro-episodes from A-E were recalled in the English oral narrative production (Table 4.7).

Table 4.7 Number of English oral macro-episodes

Age	**A**		**B**		**C**		**D**		**E**		**Total**
	#	%	#	%	#	%	#	%	#	%	
9 years	19	17.8	27	25.2	32	29.9	27	25.2	2	1.9	107
13 years	14	11.3	36	29.0	44	35.5	25	20.2	5	4.0	124
Adults	17	20.2	20	23.8	24	28.6	21	25	2	2.4	84
Total	50	15.9	83	26.3	100	31.7	73	23.2	9	2.9	315

The most recalled macro-episodes was macro-episodes C which corresponds with the narrative schema of Internal Response and Attempts/Complicating Action which in our narrative structure is 'Running through the field' with 31.7% as the highest percentage overall with the 13-year-olds recalling a higher percentage of macro-episodes than the rest of the age groups.

The quantitative analysis of the distribution of different macro-episodes across ages showed that there were no major differences across the three groups. This, therefore, means that children and adults recalled all oral macro-episodes in more or less the same way across (Table 4.8).

Table 4.8 Mean number of oral macro-episodes recalled per age group

Age	A	B	C	D	E
9 years	1.27(0.80)	1.80(1.42)	2.13(1.64)	1.80(1.37)	0.13(0.35)
13 years	0.93(0.70)	2.40(1.35)	2.93(1.53)	1.67(1.11)	0.33(0.49)
Adults	1.13(0.74)	1.33(1.18)	1.60(1.72)	1.40(1.45)	0.13(0.35)
Total	1.11(0.75)	1.84(1.36)	2.22(1.69)	1.62(1.30)	0.20(0.41)

Furthermore, macro-episodes recalled per age group can visibly be seen in Figure 4.3 indicating a more visible age-related effect on macro-episodes. The 13-year-olds recalled more of macro-episodes B, C and E than the 9-year-olds and adults while 9-year-olds recalled more macro-episodes than the adults in the English oral narratives.

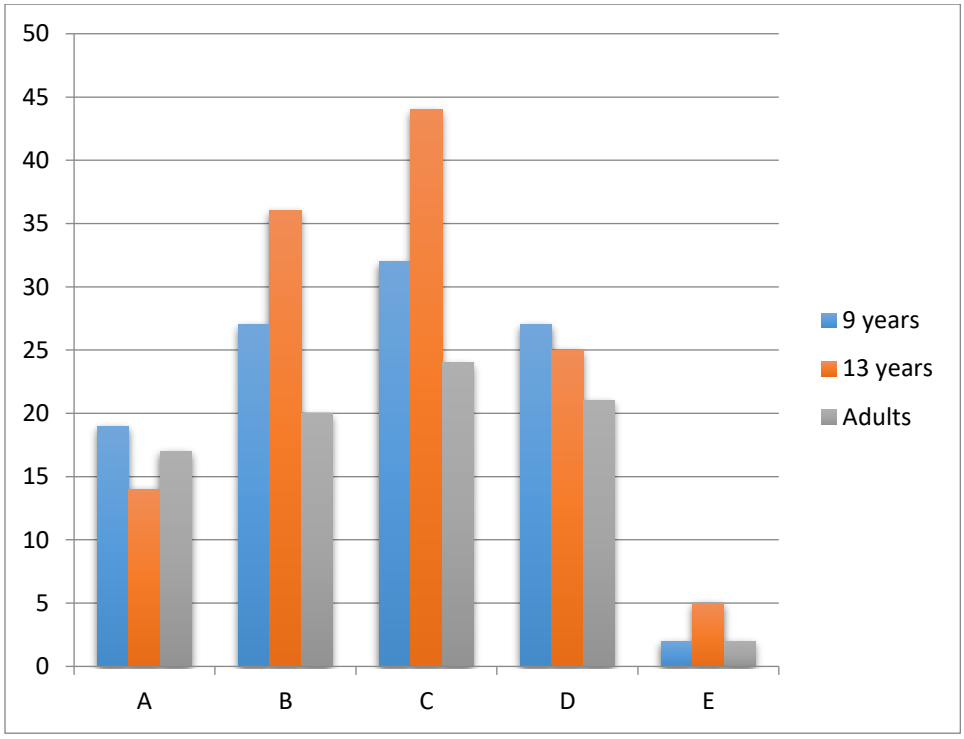

Figure 4.3 English oral macro-episodes recalled per age group

In the analysis of the English oral narratives, there was no effect of age on the number of clauses and words, narrative pragmatic clauses and on the recollection of macro-episodes. But after further quantitative analysis, the 13-year-olds recalled more macro-episodes than the 9-year-

olds and the adults. However, there was a strong age-related effect on the non-narrative pragmatic clauses where there was an increase in production of clauses with the increase of age.

4.4 Effect of Age on English Written Narrative Production

This section of the study presents the effect of age on written English narrative discourse production.

4.4.1 Length of Narratives

For the analysis of the effect of age on English written narrative production, the length of the narratives was measured by studying the clauses and words (Table 4.9) of all the participants who wrote in English.

Table 4.9 Mean number of English written clauses and words

Age	**Mean (sd) clauses**	**Mean (sd) words**
9 years	10.4(5.76)	69.93(39.75)
13 years	13.47(3.29)	110.8(30.53)
Adults	12.67(3.77)	113.2(37.01)

I observed that the older children's written narrative mean clauses were highest and the younger children had the lowest means in both the number of clauses and words. However, the adults had a moderate number of clauses but a slightly higher number of words than the other age groups.

I performed an ANOVA and saw a significant age effect on the number of words ($F(44) = 6.855$), $p < 0.003$), however, there was no significant effect of age on the number of clauses ($F(44) = 1.957$), $p > 0.154$). The Bonferroni post hoc test on the number of words showed that 13-year-olds were not significantly different from adults with respect to the number of words, but both adults and 13-year-olds presented significantly more words when compared to 9-year-olds.

4.4.2 Pragmatic Structure of Narratives

When examining the written narrative discourse structure of the data, just as with the oral data, I took into consideration the pragmatic acts of the clauses such as the pragmatic act of narration, commenting, interpreting and explaining while narrating the story. These four types of pragmatic acts were further categorised into two groups, the narrative pragmatic clauses and non-narrative pragmatic clauses as mentioned previously in the oral pragmatic acts in the previous section. The pragmatic act which had a higher quantity was the narrative pragmatic clause at the mean of 23.93 of the over-all number of pragmatic clauses through all age groups.

In the analysis, the adults produced a mean of only 7.40 of narrative pragmatic clauses and the remainder of the narration was made up of non-narrative pragmatic clauses at the mean of 5.21. We noted that the 13-year-olds had the mean of 8.93 of their narrative production consisting of narrative pragmatic clauses, with the mean of 4.53 falling into the non-narrative pragmatic clauses. Furthermore, the younger children (9-year-olds) did not go much beyond the narrative level and scarcely used the non-narrative pragmatic clauses, as they produced a mean of 7.60 of the narrative pragmatic clauses and a minimum mean of 2.2 of the non-narrative pragmatic clauses. This analysis provides evidence to the fact that there is a drop in the narrative level and an improvement of the non-narrative level with age. Therefore, it is clear from this analysis that the adults in this study had a decrease in narrative pragmatic clauses and an increase in the use of non-narrative pragmatic clauses and this trend is also noted with the 13-year-olds.

To enhance the understanding of the development of pragmatic heterogeneity, further statistical analysis was done. A summary of the mean numbers of pragmatic acts per age group is indicated in Table 4.10.

Table 4.10 Mean number (SD) of written pragmatic act type of clauses per age group

Age	**Narrates**	**Comments**	**Interprets**	**Explains**
9 years	7.60(4.52)	0.47(0.74)	1.53(1.12)	0.20(0.41)
13 years	8.93(2.74)	1.80(1.32)	2.20(1.52)	0.53(0.74)
Adults	7.40(3.98)	1.87(1.36)	2.67(1.29)	0.67(0.82)

I performed an ANOVA with age as a between-subjects factor. The results showed that there was a significant difference in the number of pragmatic acts of commentary ($F(2,42) = 6.790$, $p < 0.003$), which further manifests itself as a significant effect of age on overall non-narrative pragmatic clauses. Similar to the other post hoc tests, the Bonferroni post hoc results on the number of pragmatic acts of commentary showed that 13-year-olds were similar to adults but both presented significantly higher numbers of comments when compared to 9-year-olds. There were no other significant comparisons.

Figure 4.4 shows the number of written pragmatic acts produced across the age groups.

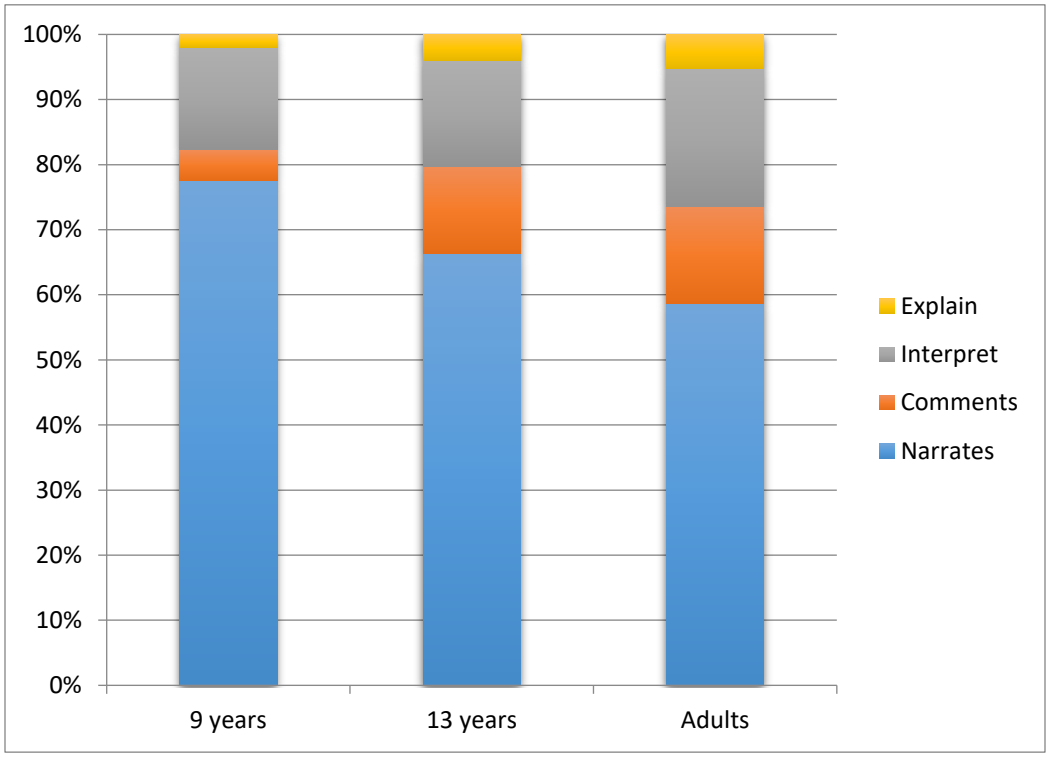

Figure 4.4 Number of English written pragmatic acts per age group

As shown in Figure 4.4, adult narrative productions tended to have a higher proportion of non-narrative pragmatic clauses (which entails explanations, interpretations and comments) compared to the narrative pragmatic clauses. To bring clarity to this statement, I decided to display the two major categories of the English written pragmatic act type of clauses, which are the narrative and non-narrative pragmatic clauses, in Table 4.11.

Table 4.11 Mean number of English written narrative (SD) and non-narrative (SD) pragmatic clauses

Age group	**Mean number of narratives (SD)**	**Mean number of non-narratives (SD)**
9 years	7.6(4.52)	2.2(1.27)
13 years	8.93(2.72)	4.53(2.50)
Adults	7.4(3.98)	5.2(2.37)

The results from the ANOVA indicate an overall significant age effect on the number of non-narrative pragmatic clauses ($F(2,42) = 8.292$, $p < 0.001$). Bonferroni post hoc tests show that 9-year-olds presented significantly less non-narrative pragmatic clauses compared to both 13-year-olds and adults.

Furthermore, complex pragmatic acts are noticeably seen when regrouping the narrative and non-narrative pragmatic clauses, as Figure 4.5 portrays. The English written "non-narrative pragmatic clause" production increased with age; adults had a high total of "non-narrative pragmatic clause" production compared to younger and older children. Additionally, the narrative pragmatic clauses indicate the decrease in narrative pragmatic clauses from 13 years to adults as the age increase. Figure 4.5 presents a clearer view of the effect of age on pragmatic acts.

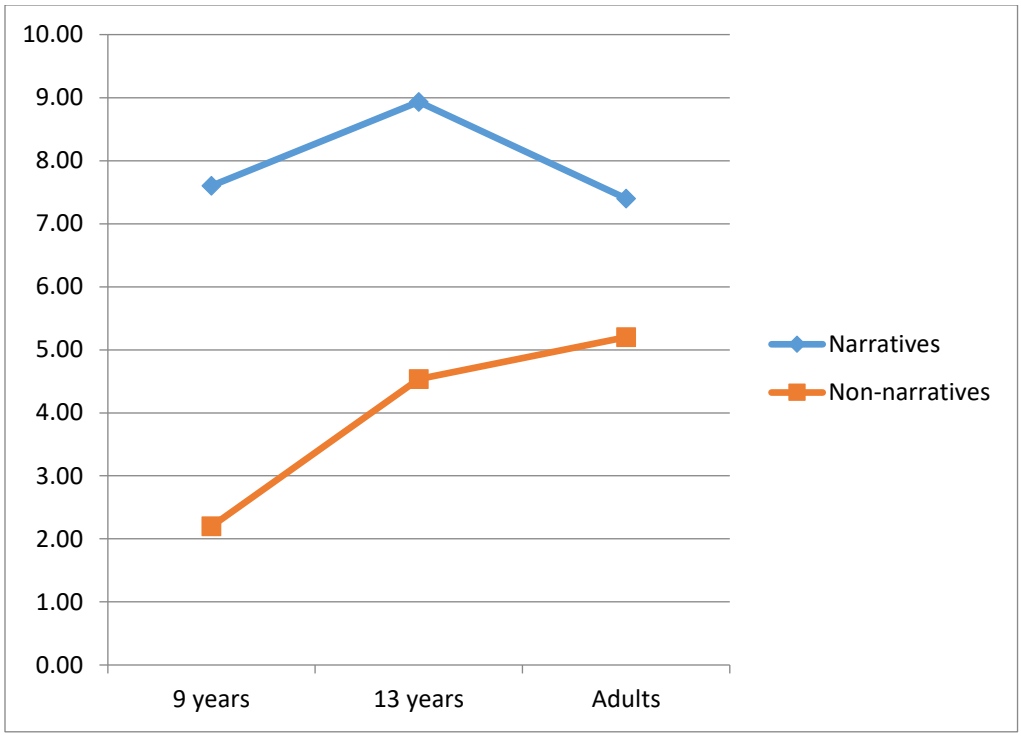

Figure 4.5 Mean number of English written narrative and non-narrative pragmatic clauses

4.4.3 English Written Macro-Structural Analysis

The analysis of English written macro-episodes was carried out following the same procedure as in the oral English macro-episodes in the previous section. The analysis of English written macro-episodes indicates that all macro-episodes were recalled by the participants when narrating the story. The most recalled written macro-episodes was macro-episodes C with 32.7% recalled across all macro-episodes and the least recalled was macro-episodes E with 0.9% similar to the recollection of the oral macro-episodes. The most recalled macro-episodes, C, corresponds with the narrative schema of Internal Response and Attempts/Complicating Action which in this narrative structure is 'Running through the field'. It is worth noting that in English both the oral and written narrative productions, macro-episodes C was the most recalled. Furthermore, from the descriptive statistics, 13-year-olds recalled the highest number of macro-episodes which is 37.2% of the total number of recalled macro-episodes across the age groups. The 9-year-olds recalled slightly more macro-episodes than the adults at 31.8%.

The quantitative analysis of the distribution of different English written macro-episodes across ages is shown in Table 4.12 and reveals that there were no significant differences in the distribution of the different written macro-episodes across the three age groups. This, therefore, means that children and adults recalled all the different written macro-episodes in more or less the same way. A comparison of the means by age was not significant, suggesting that the total number of clauses in macro-episodes did not differ by age.

Table 4.12 Mean number of written macro-episodes recalled per age group

Age	**A**	**B**	**C**	**D**	**E**
9 years	1.53(1.46)	1.67(1.29)	2.40(1.72)	1.80(1.47)	0.20(0.41)
13 years	1.53(0.99)	2.27(0.80)	3.20(1.42)	1.47(0.99)	0.40(0.51)
Adults	1.40(1.12)	1.80(1.37)	2.20(1.32)	1.93(1.53)	0.07(0.26)
Total	1.49(1.18)	1.91(1.18)	2.60(1.53)	1.73(1.34)	0.22(0.42)

With regards to the English written narrative analysis, it indicates that there were no effects of age on the number of clauses, however, there was an effect of age on the number of words. On the other hand, there was a strong effect of age on the non-narrative pragmatic clauses where there was an increase in the production of clauses with the increase of age.

4.4.4 Summary Effects on English Narrative Discourse Production

The analysis shows that in English there are no differences by age with respect to the number of clauses but there were significant differences in the number of English words spoken for the different ages, with the youngest age group speaking fewer English words compared to the 13-year-olds and the adults. Also, the adults had significantly more words written than the 13-year-olds and the 13-year-olds had more words written than the 9-year-olds. However, there were no significant differences by age, for both oral and written number of narrative clauses, even though the 13-year-olds seemed to have slightly longer oral and written narrative clauses than both groups. It is important, however, to note that the adults had shorter oral and written narratives, but they were more complex and navigated through all the complexity (para-narrative and meta-narrative) levels compared to the children's narrative productions. With respect to non-narrative pragmatic clauses, the analysis reveals that the lengths of oral and written non-narrative pragmatic

clauses were equivalent but there was an increasing trend by age, with the 9-year-olds having the least non-narrative pragmatic clauses, followed by the 13-year-olds, with the adults having the longest non-narrative pragmatic clauses.

4.5 Effect of Age on siSwati Oral Narrative Discourse Production

This section of the study shows the effect of age on oral siSwati narrative discourse production.

4.5.1 Length of Narratives

The length of the narratives was measured by analysing the utterance length of discourse, which is the clauses and words (Table 4.13) of all the participants who spoke in siSwati.

Table 4.13 Mean number of siSwati oral clauses and words

Age	**Mean (sd) clauses**	**Mean (sd) words**
9 years	11.27(5.05)	49.8(19.58)
13 years	15.53(3.02)	76.33(19.76)
Adults	17.6(4.78)	94.07(27.38)

I observed that the 9-year-old's oral narratives had the lowest means in both the number of clauses and number of words while the adults had the highest means in both measures of narrative production. Both the means for the older children's narrative productions were medium.

A further analysis presented a significant effect of age on the numbers of clauses ($F(2,42) = 8.171$, $p < 0.001$) and words ($F(2,42) = 14.659$, $p < 0.000$), and both Bonferroni post hoc tests showed that 13-year-olds were no different from adults but 9-year-olds presented significantly fewer number of clauses and words compared to both 13-year-olds and adults. This means that the adults and 13-year-olds spoke longer siSwati clauses and more words than the 9-year-olds.

4.5.2 Pragmatic Structure of Narratives

In analysing the discourse structure of the narratives of this study, I followed the same procedure used in the English oral and written narrative discourse production. I used the pragmatic

acts as the measure of narrative production. The pragmatic acts are categorised into four types of pragmatic acts: clauses, acts of narrating, commenting, interpreting and explaining. These four types of pragmatic acts were further categorised into two groups, as previously for the English narrative discourse production, producing narrative pragmatic clauses and non-narrative pragmatic clauses in the siSwati narrative discourse production. In the analysis of the siSwati oral pragmatic speech acts, the highest pragmatic act was the narration type of pragmatic clause at 66.9% of the total number of pragmatic act clauses across all ages.

Also, it was observed from the data analysis that there was a move towards more complex discourse by an increase in the use of the non-narrative pragmatic clause and a decrease in the "narrative pragmatic clause" as the age increases. The adults had a total of 61.0% oral narrative pragmatic clauses and the remaining 39% was made up of the oral non-narrative pragmatic clauses. While it can be observed from the young children's data that the highest percentage of 74.5% was in the narrative pragmatic clauses and the remaining 25.5% in the non-narrative pragmatic clauses. Indeed, a reduction of the narrative level and a growth of the non-narrative pragmatic clauses was observed with age.

I conducted a statistical analysis to further enhance understanding of the development of pragmatic heterogeneity. A summary of the mean numbers of pragmatic acts of clauses per age group is indicated in Table 4.14.

Table 4.14 Mean number (SD) of siSwati oral pragmatic act type of clause per age

Age	**Narrates**	**Comments**	**Interprets**	**Explains**
9 years	8.20 (3.88)	0.87 (0.92)	1.80(1.27)	0.13 (0.35)
13 years	10.27 (2.66)	1.40 (1.06)	2.93(1.10)	0.53 (0.64)
Adults	10.20 (3.49)	3.27 (1.79)	2.60 (1.24)	0.67 (0.62)

I performed an ANOVA, with age as a between-subjects factor. Results showed that there was no age effect in the number of narrative pragmatic clauses ($F(2,42) = 1.811$, $p < 0.176$). All the non-narrative pragmatic clauses showed a significant effect of age; there was a significant effect of age on the number of comments ($F(2,42) = 13.845$, $p < 0.000$). Bonferroni post hoc tests

showed that adults presented significantly more comments compared to both 9-year-old and 13-year-old children. There was no difference in the 9-year-olds and 13-year-olds. There was also a substantial effect of age on interprets ($F(2,42) = 3.508$, $p < 0.039$) but in this particular instance, 13-year-olds had significantly more interprets than 9-year-olds, but there was no difference between adults and 9-year-olds. With respect to the number of explanation clauses, age also had a significant effect ($F(2,42) = 3.792$, $p < 0.031$). Bonferroni post hoc tests revealed that adults used more explanation clauses than 9-year-olds, but there was no difference between other comparisons.

Figure 4.6 clearly shows that there was no effect of age in the number of narrative pragmatic clauses produced across the age groups but there was a difference in non-narrative pragmatic clauses in terms of age.

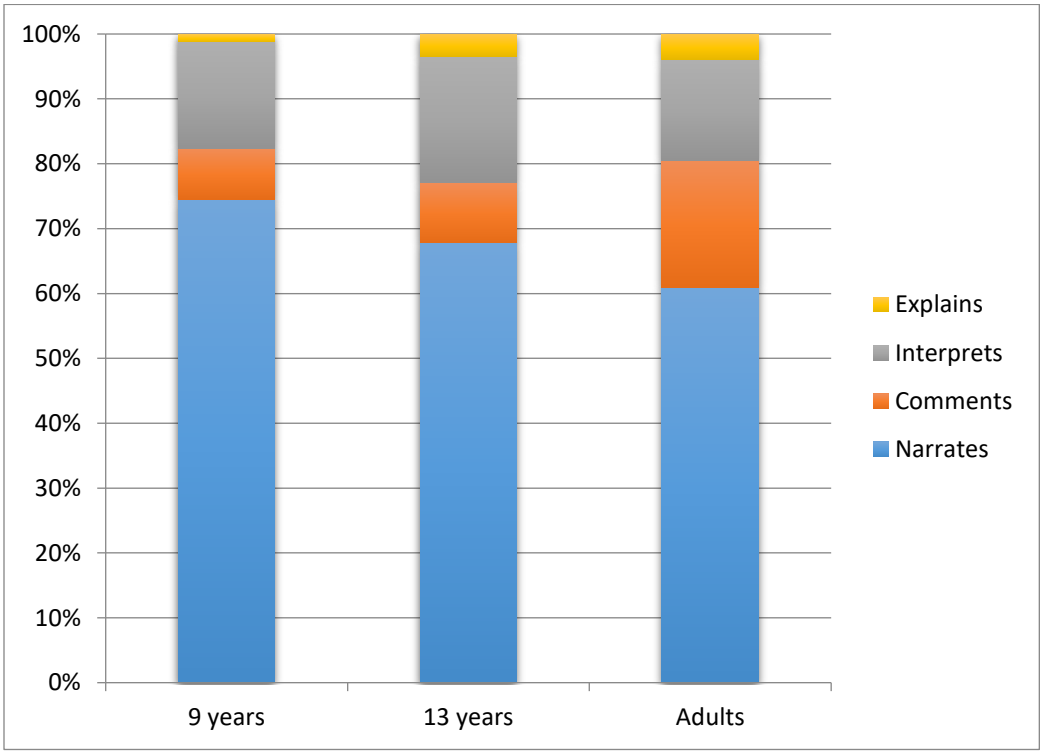

Figure 4.6 Number of siSwati oral pragmatic acts per age group

As shown in Table 4.14 adult's narrative productions tended to have a higher proportion of non-narrative pragmatic clauses. I decided to run further analysis on the two major categories of the pragmatic act clauses, which are the siSwati oral narrative and non-narrative pragmatic

clauses. The results are shown in Table 4.15 and this arrangement presents a better view of the effect of age on pragmatic acts.

Table 4.15 Mean number of siSwati oral narrative and non-narrative pragmatic acts

Age group	**Mean number of narratives (SD)**	**Mean number of non-narratives (SD)**
9 years	8.2(3.88)	2.8(1.66)
13 years	10.27(2.66)	4.87(1.36)
Adults	10.2(3.49)	6.53(2.23)

The results from the ANOVA shows a comprehensive significant influence of age on the number of non-narrative pragmatic clauses ($F(2,42) = 16.461$, $p < 0.000$). Bonferroni post hoc tests show that adults had significantly more non-narrative pragmatic clauses compared to both 9-year-olds and 13-year-olds. Also, 13-year-olds had significantly more non-narrative pragmatic clauses compared to 9-year-olds. This means that as the age increased, the number of non-narrative pragmatic clauses increased.

Complex pragmatic acts are noticeable when regrouping the narrative and non-narrative pragmatic clauses as in Figure 4.7.

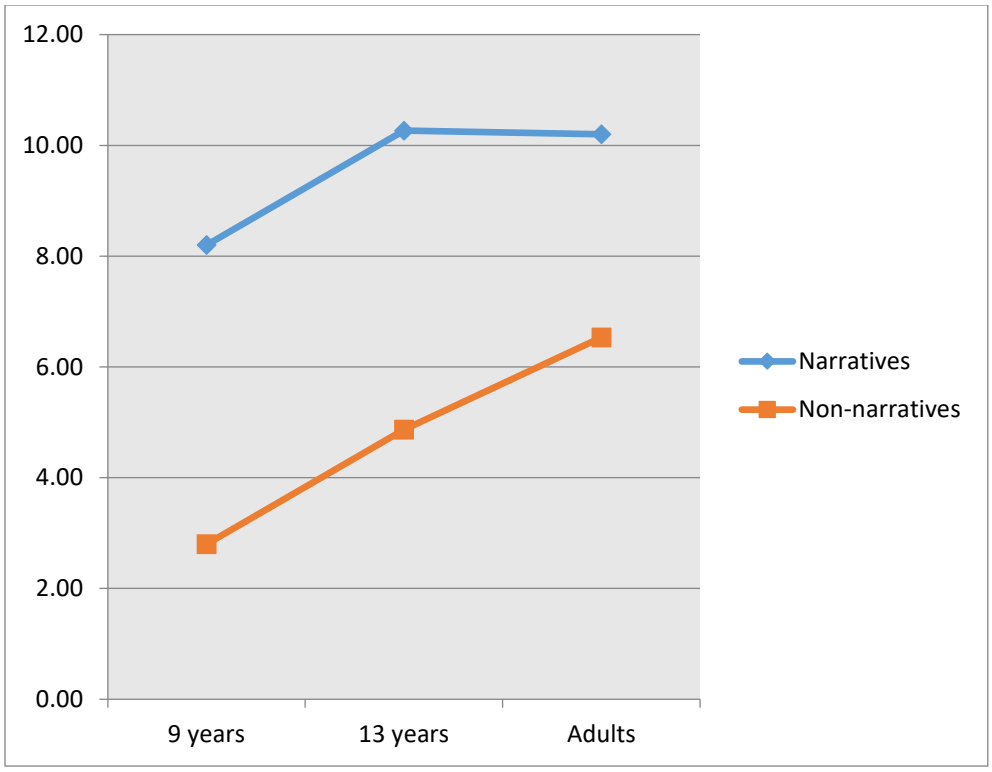

Figure 4.7 Mean number of siSwati oral narrative and non-narrative pragmatic clauses

The "narrative pragmatic clause" production in siSwati displayed a slight difference between the 9-year-olds and the older children and adults. However, the number of narrative pragmatic clauses did not differ by age as there was no significant difference in the narrative pragmatic clauses between the 13-year-olds and the adult group. On the other hand, siSwati oral "non-narrative pragmatic clause" production increased with age; adults had a greater quantity of "non-narrative pragmatic clause" production compared to the 13-year-olds and the 13-year-olds had higher non-narrative pragmatic clauses than the 9-year-olds.

4.5.3 Macro-structural Analysis

The same cartoon used in the English narrative discourse production was also used for the siSwati narrative production. The cartoon was segmented to assist analysis of the structural characteristics of the entire narrative. It was segmented into five macro-episodes. Each macro-episodes structure contains each main clause with narrative content. There were minor clauses with narrative content called micro-episodes. The macro- and micro-episodes assist in the estimation of the degree of accuracy of the story narration and help to study the subject's processing of the event

organisation. The descriptive analysis of siSwati oral macro-episodes structure points to the fact that all macro-episodes from A-E were recalled in the oral narrative productions. The most recalled written macro-episodes was macro-episodes C with 35.8% recalled across all macro-episodes and the least recalled was macro-episodes E with 2.3%. macro-episodes C which corresponds with the narrative schema of Internal Response and Attempts/Complicating Action which corresponds to 'Running through the field' in our narrative structure.

Using descriptive statistics, the 13-year-olds remembered slightly more siSwati oral macro-episodes across all age groups and the adults recalled more macro-episodes than the 9-year-olds. However, there was no substantial age difference with the recollection of the macro-episodes. That means that there is no influence of age on recalling the siSwati oral macro-episodes.

Table 4.16 Mean number of siSwati oral macro-episodes recalled per age group

Age	**A**	**B**	**C**	**D**	**E**
9 years	1.47(0.99)	1.87(1.51)	2.93(1.22)	1.73(1.10)	0.20(0.41)
13 years	1.60(0.91)	2.40(0.74)	4.13(1.06)	1.80(0.94)	0.33(0.49)
Adults	2.07(0.80)	2.60(1.30)	3.20(1.47)	2.20(0.94)	0.13(0.35)
Total	1.71(0.92)	2.29(1.24)	3.42(1.34)	1.91(0.10)	0.22(0.42)

The quantitative analysis of the distribution of different macro-episodes across age groups showed that there were no major differences across the three groups. This, therefore, means that children and adults recalled all oral macro-episodes in more or less the same way, save for macro-episodes C, which was significantly different from all other macro-episodes at ($F(2,42) = 3.730$, $p < .032$) (Table 4.16). Bonferroni post hoc tests show that 13-year-olds had significantly higher macro-episodes of type C, the narrative schema which corresponds to 'Running through the field', than 9-year-olds. All other comparisons showed no significant differences. This means that siSwati oral macro-episodes were recalled across all age groups with the 13-year-olds recalling slightly more macro-episodes C than adults and the 9-year-olds.

In terms of the analysis of siSwati oral narratives, it was found that there was an effect of age on the number of clauses, words and the non-narrative pragmatic clauses. This means that the

production of non-narrative pragmatic clauses was influenced by age and that where there was an increase in production of non-narrative pragmatic clauses there was also an increase of age.

4.6 Effect of Age on siSwati Written Narrative Discourse Production

This section of the study shows the effect of age on written siSwati narrative discourse production.

4.6.1 Length of Narratives

Using the measure of the number of clauses and the number of words, I calculated the length of siSwati written narratives for all the participants that wrote in siSwati (Table 4.17).

Table 4.17 Mean number of siSwati written clauses and words

Age	**Mean (sd) clauses**	**Mean (sd) words**
9 years	12.93(6.50)	37.8(23.91)
13 years	13.33(2.92)	52.53(12.21)
Adults	18.53(5.82)	75.93(23.25)

The analysis of Table 4.17 indicates that the adults' siSwati written narrative mean clauses and number of words were higher than those of the 13-year-olds and the 13-year-olds mean number of siSwati written narrative clauses and words were higher than those of the 9-year-olds. Therefore, this means that there was an effect of age on siSwati written clauses and words.

I observed a significant effect of age on the number of clauses ($F(2,42) = 5.193$, $p < 0.010$) and on the number of words ($F(2,42) = 13.191$, $p < 0.000$), and both Bonferroni post hoc tests showed no significant difference between the 9-year-olds and 13-year-olds but adults had significantly more siSwati written number of clauses and number of words than both groups.

4.6.2 Pragmatic Structure of Narrative

In investigating the discourse structure of the written narratives of the data, I took into consideration the pragmatic acts of the clauses such as the act of narrating, commenting, interpreting and the act of explaining while narrating the events of the story. These four types of

pragmatic acts were further categorised into two main groups, the narrative and non-narrative pragmatic clauses as mentioned previously in the section on oral pragmatic acts. The pragmatic act which had the leading percentage was the siSwati written "narrative pragmatic clause" at 72.5% of the overall number of siSwati written pragmatic clauses in every age group.

I observed that the adults produced only 65.3% of siSwati written narrative pragmatic clauses and the remaining 34.7% of the written narration was made up of non-narrative pragmatic clauses. The 13-year-olds wrote 70.8% of the siSwati narrative pragmatic clauses and 29.2% was made up of written non-narrative pragmatic clauses. I noted that the younger children (9-year-olds) recounted event-by-event and did not venture much into the "non-narrative pragmatic clause", as they produced 85.2% narrative pragmatic clauses. This analysis confirms the known statement that there is a lower percentage of the narrative pragmatic level and a rise in the "non-narrative pragmatic clause" production as age improved.

So, to increase the understanding of the development of pragmatic diversity in the siSwati written narratives, further statistical analysis was done. A summary of the mean number of siSwati written pragmatic acts per age group is indicated in Table 4.18.

Table 4.18 Mean number (SD) of siSwati written pragmatic act type of clause per age group

Age	**Narrates**	**Comments**	**Interprets**	**Explains**
9 years	10.33(5.04)	0.40(0.63)	1.27(0.88)	0.13(0.35)
13 years	9.53(3.31)	1.13(1.25)	2.33(0.98)	0.47(0.52)
Adults	11.67(4.55)	2.60(1.81)	2.93(1.71)	0.67(0.49)

I performed an ANOVA, with age as a between-subjects factor. Results showed that there was a significant overall effect of age for commentary, interpretation and explanation pragmatic act clauses in writing: Comments ($F(2,42) = 10.839$, $p < 0.000$), Interprets ($F(2,42) = 6.885$, $p < 0.003$) and Explains ($F(2,42) = 5.197$, $p < 0.010$). However, there was no significant difference by age in the pragmatic act of narrating: Narrates ($F(2,42) = 0.916$, $p < 0.408$). Bonferroni post hoc tests revealed that adults had significantly higher commentary, interpretation and explanation type of pragmatic act clauses than the 13-year-olds and the 13-year-olds had slightly more than

the 9-year-olds. Furthermore, the tests also showed that adults commented more than 13-year-olds and also the 13-year-olds commented more than the 9-year-olds. All other comparisons did not show any significant difference. Figure 4.8 gives an overview of the distribution of the siSwati written pragmatic act clauses across the groups.

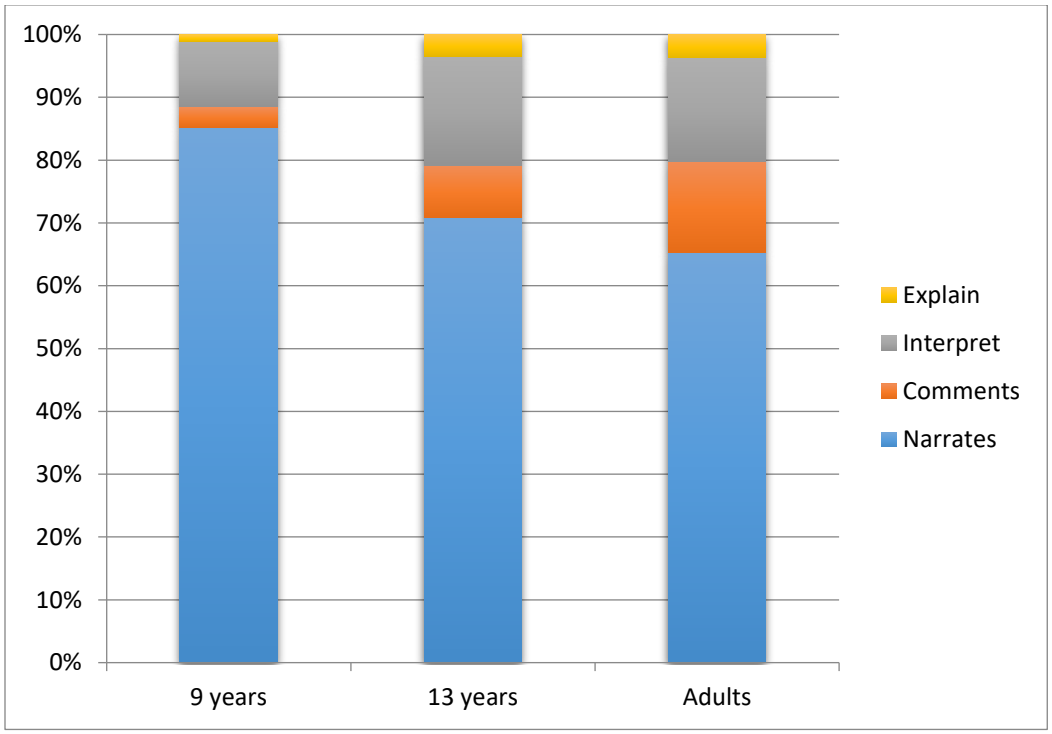

Figure 4.8 Number of siSwati written pragmatic acts per age group

As depicted in the analysis, adult siSwati written narrative production tended to have a higher proportion of non-narrative pragmatic clauses. Subsequently, I decided to display the two major categories of the pragmatic act type of clauses (narrative and non-narrative pragmatic clauses) in Table 4.19. This arrangement presents a coherent view of the effect of age on siSwati written pragmatic act type of clauses.

Table 4.19 Mean number of siSwati written narratives (SD) and non-narratives (SD)

Age group	**Mean number of narratives (SD)**	**Mean number of non-narratives (SD)**
9 years	10.33(5.04)	1.8(0.76)
13 years	9.53(3.31)	3.93(1.58)
Adults	11.67(4.55)	6.2(2.62)

The results from the ANOVA show a total significant effect of age on the number of siSwati written non-narrative pragmatic clauses ($F(2,42) = 21.828$, $p < 0.000$). Bonferroni post hoc tests revealed increasing non-narrative pragmatic clauses with increasing age. Adults had significantly higher written non-narrative pragmatic clauses than 13-year-olds and 13-year-olds had significantly higher non-narrative pragmatic clauses than 9-year-olds.

The complexity of pragmatic clauses is remarkable when putting together the narrative and non-narrative pragmatic clauses, as Figure 4.9 illustrates. SiSwati written "non-narrative pragmatic clause" production increased with age; adults had a greater amount of non-narrative pragmatic clauses (comments, interpretations and explanations) production compared to younger and older children.

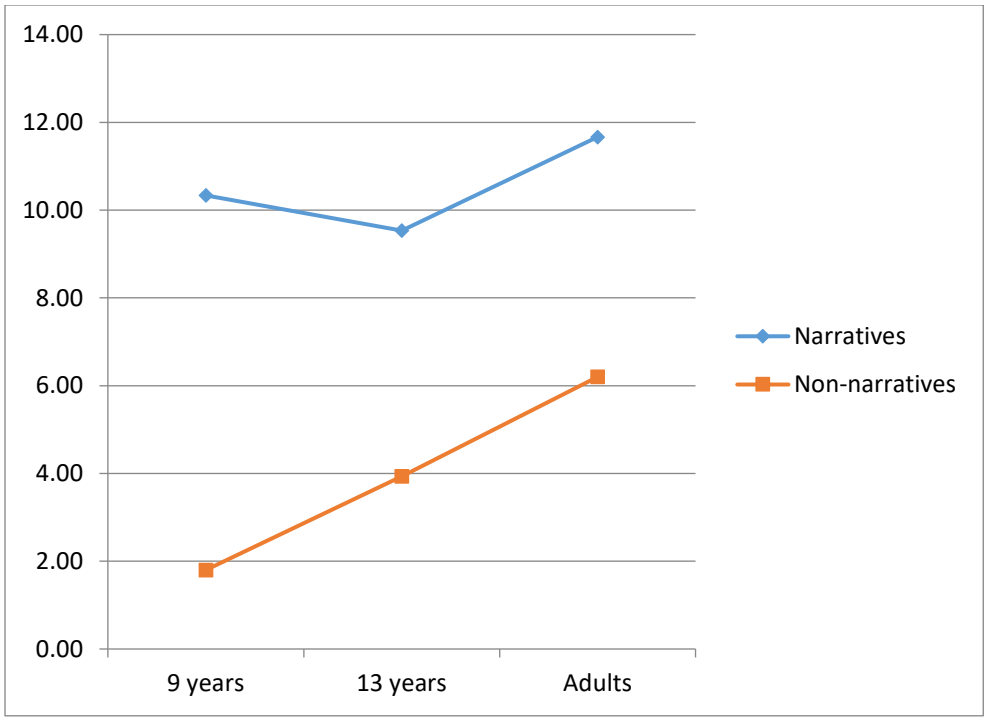

Figure 4.9 Mean number of siSwati written narrative and non-narrative pragmatic acts

However, the narrative pragmatic clauses show that the adults had slightly more narrative pragmatic clauses than the 9-year-olds and the 9-year-olds had slightly higher narrative pragmatic clauses than the 13-year-olds.

4.6.3 Macro-structural Analysis

The analysis of siSwati written macro-episodes indicates that all macro-episodes were recalled by the participants when writing the story. That means that all the participants remembered to write on macro-episodes A-E. The most recalled written macro-episodes was macro-episodes C with 29.4% recalled across all macro-episodes and the least recalled was macro-episodes E at 3.0%. The most recalled macro-episodes C corresponds with the narrative schema of Internal Response and Attempts/Complicating Action which in our narrative structure is 'Running through the field'. It is worth noting that in both siSwati oral and written narrative productions macro-episodes C was the most recalled just as the English oral and written narrative production.

Table 4.20 SiSwati written macro-episodes per age

Age	**A**		**B**		**C**		**D**		**E**		**Total**
	#	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	
9 years	45	29.2	41	26.6	34	22.1	30	19.5	4	2.6	**154**
13years	34	23.9	32	22.5	49	34.5	22	15.5	5	3.5	**142**
Adults	45	25.9	32	18.4	55	31.6	37	21.3	5	2.9	**174**

The quantitative analysis of the distribution of different macro-episodes across ages as shown in Table 4.20 reveals that there were no major variations in the spread of the different siSwati written macro-episodes throughout the three ages. This means that children and adults recalled all the different written macro-episodes in almost a similar way across all age groups. Descriptively, the adults recalled slightly more siSwati written macro-episodes than the 9-year-olds and the 9-year-olds recalled slightly more than the 13-year-olds.

4.6.4 Summary Effect of Age on siSwati Narrative Discourse Production

Unlike English, which indicated a significant difference by age with respect to length of narratives and number of words, in siSwati, the analysis shows that there were significant differences by age in relation to both measures of length of narratives (i.e., the number of clauses and number of words). An increase in the number of siSwati clauses and words was observed as age increased for both modalities, but that difference was significant between the young age group (9-year-olds) and the other two groups, implying that the 9-year-olds spoke and wrote less number of clauses and words compared to the 13-year-olds and adults. Similar to English narrative production, the analysis reveals that the number of siSwati oral and written non-narrative pragmatic clauses increases with increasing age. Also, there were no significant differences by age in the number of oral and written narrative pragmatic clauses, even though adults seemed to have longer written/oral narratives than children.

Therefore, the results do not support the hypothesis that there will be no effect of age when children and young adults produce narratives. In fact, the results show that age does play a role in the production of English and siSwati narratives.

I accept the hypothesis that there will be an effect of age when children and young adults produce narratives.

Research Question

2) What is the effect of language when English-siSwati bilinguals produce narratives?

This is the following hypothesis that is tested:

Hypothesis 2

- There will be no effect of language when English-siSwati bilinguals produce narratives (H_0)
- There will be an effect of language when English-siSwati bilinguals produce narratives. (H_1)

4.7 Effect of Language on Narrative Discourse Production

A Comparative Analysis of English and siSwati Languages

To examine the influence of language on the acquisition of oral and written narratives, I compared the English and siSwati narrative discourse production of the same speakers across the total corpus of 45 participants. As mentioned previously, each English-siSwati bilingual recounted four narratives, each in both modalities (oral and written) in their two different languages (English and siSwati). Therefore, the following analysis is based on the results of the 45 bilingual participants who produced a total of 180 oral and written narrative tasks in their two languages.

The independent variables for the comparison of English and siSwati are modality, language and age while the dependent variables are: narrative length (analysed through the number of clauses and words), pragmatics (analysed through the four types of pragmatic acts), and semantics (analysed through macro-episodes). The following section presents the analysis of the effect of language on English and siSwati oral narratives.

4.7.1 English and siSwati Oral Narrative Discourse Production

This section of the analysis presents the effect of language on oral English and siSwati narrative discourse production.

a. Length of Narratives

Just as the previous section in the analysis of the effect of age, this study used the general measure of utterance length of discourse, which is the clause and the word to analyse the language effect. Therefore, the length of the comparative analysis of the narratives was measured by analysing the clauses and words of all the participants who spoke in English and siSwati.

Table 4.21 Mean number of oral clauses

Language	**Number of participants**	**Mean number of clauses (sd)**	**Mean number of words (sd)**
English	45	12.6(4.69)	111.4(40.91)
SiSwati	45	14.8(5.04)	73.4(28.69)

The analysis of results indicates that siSwati narratives were significantly longer than the English narratives (Table 4.21). The effect of language on the number of oral clauses was significant ($t(44) = 2.883$, $p < 0.006$) and that was also true with the number of words ($t(44) = 6.399$, $p < 0.000$).

This means that siSwati produced longer narratives compared to English narratives, since there was a significant difference between the numbers of oral clauses between these two languages. Furthermore, English produced more words compared to siSwati (linguistic explanation in Chapter 3).

b. Pragmatic Structure of Narratives

In analysing the discourse structure of the narratives of this study I used the pragmatic acts of the clauses as the measure of narrative discourse production. The pragmatic acts are categorised into four types of clauses: the pragmatic acts of narration, commenting, interpreting and explaining. These four types of pragmatic acts were further classified into two main groups, the narrative and non-narrative pragmatic clauses, as used previously in the section that analysed the

age effects. The pragmatic act of narration falls under the narrative pragmatic clauses while the pragmatic acts of commenting, interpreting and explaining fall under the non-narrative pragmatic clauses. In the analysis of English and siSwati oral pragmatic speech acts, the highest pragmatic act was the "narrative pragmatic clause" at 64.0% of the total number of pragmatic act clauses across both languages and 36.0% is shared between the pragmatic act of commenting, interpreting and explaining (Table 4.22).

Table 4.22 Number of English and siSwati pragmatic acts in oral narratives

Pragmatic Act	**Narrates**		**Comments**		**Interprets**		**Explains**		**Total**
	#	**%**	**#**	**%**	**#**	**%**	**#**	**%**	
English	315	60.8	75	14.5	112	21.6	16	3.1	518
SiSwati	430	66.9	83	12.9	110	17.1	20	3.1	643
Total	745	64.0	158	13.6	222	19.1	36	3.1	1161

Since siSwati narratives were longer, I hypothesised that they would have more of each type of pragmatic act clauses coded for. In the results for the narrative clauses, I indeed found that they constitute more siSwati narrative pragmatic clauses than English (Table 4.23). In the same analysis, language was a significant predictor of the length of narratives ($F(1,42) = 27.767$, $p < 0.000$) and after a Bonferroni post hoc analysis, siSwati was found to have more oral narrative pragmatic clauses than English.

Table 4.23 Mean number of oral pragmatic act clauses per language

Pragmatic Clause	**English (SD)**	**SiSwati (SD)**
Narrates	7.00(3.94)	9.56(3.44)
Comments	1.67(1.58)	1.84(1.65)
Interprets	2.49(1.58)	2.44(1.27)
Explains	0.36(0.53)	0.44(0.59)

The results show that the narration type of pragmatic clause had the highest mean in both English and siSwati languages (Table 4.23). The mean for the English narrative pragmatic clauses

was 7.00 (SD 3.943) and 9.56 (SD 3.441) for siSwati, as shown above. This, in essence, means that there were more narrative pragmatic clauses in both languages compared to the non-narrative pragmatic clauses. On the other hand, the distribution of non-narrative pragmatic clauses was smaller and tended to vary across the two languages. The interpretation type of pragmatic clause had a higher mean in the English oral data than in siSwati, while the higher mean in the commentary and explanation type of pragmatic act clauses was in siSwati than in English. To test for the effect of language and also establish if there was an interaction of the narrative pragmatic act, an analysis was conducted in the following section.

c. Oral Narrative Pragmatic Acts

To test for the effect of language, I started with the analysis of narrative pragmatic acts (Table 4.24).

Table 4.24 Mean number of oral narrative pragmatic acts per language

Language	**Mean (SD) number of narratives**
English	7(3.94)
SiSwati	9.56(3.44)

In a mixed ANOVA, results of the effect of language on the number of oral narrative pragmatic clauses showed that language was a significant predictor of the length of narratives ($F(1,42) = 27.767$, $p < 0.000$) and from a post hoc Bonferroni analysis, siSwati was found to have more narrative pragmatic clauses than English.

The following section analyses the distribution of the oral non-narrative pragmatic clauses in both English and siSwati narrative discourse productions.

d. Oral Non-narratives Pragmatic Acts

The next analysis was conducted on the oral non-narrative pragmatic clauses of both languages. The non-narrative pragmatic clauses consist of three types of pragmatic clauses: the pragmatic act clauses of commentary, interpretation and explanation. In the mixed ANOVA analysis of results, I found that there was no significance in the languages with respect to the production of oral non-narrative pragmatic clauses (Table 4.25).

Table 4.25 Mean number of oral "non-narratives pragmatic clauses" per language

Language	Mean (SD) number of non-narratives
English	4.51(2.82)
SiSwati	4.73(2.33)

This means that English and siSwati are not different from each other with regards to the production of oral non-narrative pragmatic clauses. The language interaction is not significant at ($F(2,42) = .100$, $p > .905$).

In summary, when viewing the comparative oral analysis with regards to narrative length and pragmatic acts structure of narratives for both languages, I noted that siSwati had longer oral narrative clauses than English and also more narrative pragmatic clauses than English. While on the other hand, the non-narrative pragmatic clauses were not significantly different between the two languages.

e. Macro-structural Analysis

For the comparative analysis of the two languages (English and siSwati) the same cartoon was used (Chapter 3). The cartoon was segmented to assist in analysing the structural characteristics of the entire narrative. The cartoon was divided into five macro-episodes starting from macro-episodes A-E. Each macro-episodes structure includes each main clause with narrative content. The macro-episodes are useful in the measurement of the degree of accuracy of the story narration and also aid in studying the subject's processing of the event organisation.

Table 4.26 Number of oral macro-episodes recalled per language

Language	**A**		**B**		**C**		**D**		**E**		**Total**
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	
English	50	15.9	83	26.3	100	31.7	73	23.2	9	2.9	**315**
SiSwati	77	17.9	103	24.0	154	35.8	86	20.0	10	2.3	**430**

The types of macro-episodes were measured in both languages being compared. It should be noted that all macro-episodes were recalled in both languages, as shown in Table 4.26. From a descriptive analysis of the languages, there were more oral macro-episodes presented in siSwati

compared to English. macro-episodes C was the most recalled macro-episodes across both languages, which corresponds to the narrative schema of Internal Response and Attempts/Complicating Action which matches the macro-episodes 'Running through the field' in our narrative discourse structure. The least recalled was macro-episodes E for both English and siSwati.

The following section presents the analysis of the effect of language on English and siSwati written narratives.

4.7.2 English and siSwati Written Narrative Discourse Production

This part of the analysis shows the effect of language on written English and siSwati narrative discourse production.

a. Length of Narratives

For the analysis of written narrative discourse production, I considered the length of narratives to be measured by the mean number of clauses and the mean number of words.

Table 4.27 Mean number of written clauses by language

Language	**Number of participants**	**Mean number of clauses (sd)**	**Mean number of words (sd)**
English	45	12.18(4.50)	97.98(40.48)
SiSwati	45	14.93(5.79)	55.42(25.56)

The analysis of results shows that siSwati written narratives were longer (M = 14.93, SD 5.79) than the English written narratives (M = 12.18, SD 4.50) (Table 4.27). The effect of language on the number of clauses was significant ($t(44) = 4.051$, $p < 0.000$). That was also true of the number of words ($t(44) = 9.093$, $p < 0.000$). This means that language had an influence on the production of clauses and words since there was a difference in the number of clauses and number of words based on the two languages, with English having more written words (Chapter 3) while SiSwati had longer written clauses.

b. Pragmatic Structure of Narratives

To analyse the discourse structure of the written narratives of this study, I used the pragmatic act type of clauses as the measure of narrative production, just as they were used in the oral narrative discourse production section previously. The pragmatic acts are categorised into four types of clauses: the pragmatic acts of narrating, commenting, interpreting and explaining. These types of pragmatic act clauses are grouped into narrative and non-narrative pragmatic clauses. The pragmatic act of narration falls under the narrative pragmatic clauses while the pragmatic acts of commenting, interpreting and explaining fall under the non-narrative pragmatic clauses. In the analysis of English and siSwati written pragmatic acts, the highest pragmatic act clause was the "narrative pragmatic clause" at 69.9% of the total number of pragmatic act clauses in both languages, while only 30.1% remained for the non-narrative pragmatic clauses as shown in Table 4.28.

Table 4.28 Number of written English and siSwati pragmatic acts

Written narratives									**Total**
Pragmatic act	**Narrates**		**Comments**		**Interprets**		**Explains**		
	#	%	#	%	#	%	#	%	
English	359	66.7	62	11.5	96	17.8	21	3.9	538
SiSwati	473	72.5	62	9.5	98	15.0	19	2.9	652
Total	832	69.9	124	10.4	194	16.3	40	3.4	1190

As the siSwati written narratives were found to be longer, I hypothesised that they would have more of each type of pragmatic act clauses we had coded. In the results for the written narrative pragmatic clauses, I found that they comprise more of siSwati narrative pragmatic clauses than English (Table 4.29).

Table 4.29 Mean number of written pragmatic clauses per language

Pragmatic clause	English (SD)	SiSwati (SD)
Narrates	7.98(3.79)	10.51(4.35)
Comments	1.38(1.32)	1.38(1.59)
Interprets	2.13(1.38)	2.18(1.40)
Explains	0.47(0.69)	0.42(0.50)

In this analysis, language was a significant predictor of the length of narratives ($F(1,42) = 25.642$, $p < 0.000$) and from post hoc Bonferroni analysis, siSwati had more written narrative pragmatic clauses than English.

However, when analysing the non-narrative pragmatic acts, the explanatory type of pragmatic clause had a slightly higher mean in the English written data, while in the siSwati data, the interpretation type of clause was slightly higher. The commentary type of pragmatic clause was equal in both siSwati and English. To test for the effect of language and also establish if there was an interaction in the written narrative pragmatic clauses, an analysis was performed in the following section.

c. Written Narrative Pragmatic Acts

To test for the effect of language, I started with the analysis of written narrative pragmatic clauses in both languages (Table 4.30). The results show that there was an effect of language ($F(2,42) = 5.192$, $p < 0.010$) on the number of written narrative pragmatic clauses. From a post hoc Bonferroni analysis, siSwati was found to have significantly more written narrative pragmatic clauses than English. This means that language had an influence on the production of siSwati written narrative pragmatic clauses.

Table 4.30 Mean number of written narrative pragmatic clauses per language

Language	Mean (SD) number of Narratives
English	7.98(3.79)
SiSwati	10.51(4.35)

The following section analyses the distribution of the written non-narrative pragmatic acts in both English and siSwati narrative discourse productions.

d. Written Non-narrative Pragmatic Acts

The English and siSwati non-narrative written pragmatic clauses were analysed. There are three types of written pragmatic clauses: the commentary, interpretation and explanatory clauses. In the results, I found that language had no significant influence on the number of written non-narrative pragmatic clauses ($F(2,42) = 2.585$, $p < 0.087$). This, therefore, means that the interaction with language had no effect, hence language had no influence on the production of written non-narrative pragmatic clauses in the two languages. Therefore, English and siSwati were not different from each other with regards to the production of written non-narrative pragmatic clauses (Table 4.31).

Table 4.31 Mean number of written non-narrative pragmatic acts per language

Language	**Mean (SD) number of non-narratives**
English	3.98(2.45)
SiSwati	3.98(2.55)

The following section presents the results of the macro-episodes in English and siSwati languages.

e. Macro-structural Analysis

As mentioned previously in the analysis of the effect of language on the oral narrative discourse production section, the macro-episodes help in guiding the extent of accuracy in narrating the events of the story, as well as assist in studying the participant's handling and processing of the event structure.

Written macro-episodes structures were measured in both languages being compared. I found that all macro-episodes were recalled in both languages (Table 4.32). A pairwise comparison (Bonferroni) of the two languages shows that there were more written macro-episodes presented in siSwati compared to English. In siSwati writing, macro-episodes C was the most recalled macro-episodes which corresponds to the narrative schema of Internal Response and Attempts/Complicating Action which matches to 'Running through the field' in our narrative structure.

Table 4.32 Number of written macro-episodes recalled per language

Language	A		B		C		D		E		Total
	N	%	N	%	N	%	N	%	N	%	
English	67	18.7	86	24.0	117	32.7	78	21.8	10	2.8	**358**
SiSwati	124	26.4	105	22.3	137	29.1	89	18.9	15	3.2	**470**

4.7.3 Summary Effect of Language on Narrative Discourse Production

The effect of language is evident with respect to the length of narratives, siSwati had longer narratives compared to English. On the other hand, English narratives had more words compared to siSwati narratives. SiSwati narrative discourse production presented significantly more narrative pragmatic clauses and macro-episodes than English. However, when it came to non-narrative pragmatic clauses there was no significant difference in the production between English and siSwati languages.

The results do not support the hypothesis that there will be no effect of language when English-siSwati bilinguals produce narratives. In fact, the results indicate that language plays a major role in the production of English and siSwati narratives.

For that reason, we accept the hypothesis that there will be an effect of language when English-siSwati bilinguals produce narratives.

4.8 Summary of Results

The results show that there was an effect of age and language on the number of clauses. Also, an interaction between age and language was observed. With respect to English, age is not significant, whereas, for siSwati, age is significant. Furthermore, there was a significant effect of age and language on the number of words but there were no interactions between these two variables. Oral and written English narrative pragmatic clauses were shorter for the adult age group compared to the 13-year-olds and the 9-year-olds, while both oral and written siSwati narrative clauses were higher for the adult age group compared to the two age groups. In relation to non-narrative pragmatic clauses, the effect of age was found to be significant. The non-narrative pragmatic clauses were significantly more for the adults compared to the 13-year-olds, while those

for the 13-year-olds were significantly more than those of the 9-year-olds in both oral and written modalities.

CHAPTER 5 DISCUSSION AND CONCLUSION

5.1 Introduction

The main aim of this dissertation was to provide empirical evidence when comparing written and oral productions in narrative discourse of 9-year-old, 13-year-old and adult English-siSwati bilinguals, in order to increase our knowledge on the different processing demands presented by the two languages. English and siSwati oral and written narratives were analysed to measure the narrative discourse productions in the two languages of the Swazi bilinguals.

A total corpus of 90 written texts and 90 oral recounts of a cartoon, in both English and siSwati, were analysed for the three groups stated above. The analysis was carried out in three parts. Once all the modalities of the two languages were found to yield no statistical significance, the analysis looked at individual languages. First, there was an analysis of the English oral and written narrative discourse productions using the length of narratives, pragmatics and macro-structure as narrative discourse measures. The effects of age were explored. In the second part of the analysis, I investigated the effect of age on the siSwati oral and written narrative discourse productions using the same measures of narrative discourse mentioned above. Lastly, I explored the effect of language, starting with the oral and then the written narrative discourse productions in the two languages.

The languages used in this comparative study are typologically different from each other as English is an analytic language while siSwati is an agglutinative language. According to Talmy's (1985) typology of linguistic encoding, English is a satellite-framed language (information on a path of movement is expressed outside the verb such as: in, past, out) while siSwati is a verb-framed language (information about a path of movement is expressed in a verb such as: enter, exit pass). The effect of typological differences on oral and written narratives have not been examined elsewhere in the two languages except in the present study, to my knowledge at the time of writing.

The findings of this study confirmed results obtained in other studies (Ahmed 2015; Kunene 2010; Alamillo et al., 2013; Potter et al., 2019; Colletta et al., 2015; Colletta et al., 2010; Kunene Nicolas, 2015; Kunene Nicolas et al., 2017; Park, 2014; Reilly and Polse, 2016). It also came up with new findings that have not been described before. This analysis is organised in two

parts: the effect of age on the English and siSwati oral and written narrative discourse production, and the effect of language on the English and siSwati oral and written narrative discourse production.

5.2 Effect of Age on Oral and Written English and siSwati Narrative Discourse Production

Modality plays a very important function when put together with age. The analysis of the narrative discourse measures indicates that there was an effect of age on the length of narratives (clauses and words) and in the pragmatic acts across the two modalities. The analysis of our results indicates that as children become older, their narrative complexity develops too (Bamberg, 1987; Berman and Slobin, 1994; Kunene, 2010; Hickman, 2003; Colletta, 2004; Colletta et al., 2015). In terms of the length of narratives the older children, 13-year-olds had longer narratives as they produced more clauses and words orally in English than adults and the 9-year-olds. This finding is consistent with other studies (Colleta et al., 2015) investigating a similar phenomenon. In some studies, conducted by Colletta et al. (2009; 2010) on French children aged below 10 years doing the task of narrating a cartoon (just as in this study), the children recounted the story event-by-event thereby producing more clauses while those older than 10 years gave a summarised version of the story like adults. However, this finding is contrary to the results observed in siSwati oral narrative discourse production, where the adults had the longest narratives (clauses and words) followed by the 13-year-olds and then the 9-year-olds with the shortest narratives. This trend of longer narratives with the adults in siSwati is different from the English data of this study. Kunene (2010) also found a similar trend in isiZulu where the adults produced longer narratives compared to their French counterparts using the same tool to elicit data (video/cartoon). These findings of longer narratives in siSwati oral data are similar to those in isiZulu by Kunene, (2010).

The analysis reveals the effect of age, even on written narrative discourse production. The 13-year-olds presented longer written clauses and words followed by the adults then the 9-year-olds in English. It is worth noting that in both English modalities, adults had slightly fewer narrative clauses than the 13-year-olds. This is attributed to their tendency to summarise their recounts by using complex linguistic structures in their written narrative production. This finding is in line with similar studies (Hidi and Hildyard 1983; Hildyard and Hidi, 1985) that found older children and adults used varied vocabulary and had shorter but better structured written narratives

than oral protocols. Hidi and Hildyard (1983) assert that literate adults increase the separation of the two modes of expression, and this is corroborated by Scott and Windsor (2000) who argue that sentences in written narratives develop in complexity and become shorter during the adolescent years. This suggests that the spoken and written narrative production in our study indicated age-related developments in both the amount and characteristics of written and spoken narratives (Berman, 2016; Sun, 2008).

The siSwati narrative discourse production evidenced a slightly different trend. The analysis indicates that the adults had the longest narrative clauses and words followed by the 13-year-olds and then the 9-year-olds with the shortest narrative clauses, in both siSwati oral and writing. This essentially means that the younger children (9-year-olds) had the shortest number of clauses and words in terms of the length of narratives, orally and in writing, which indeed points to the effect of age on the oral and written narratives. It is important to note that writing is cognitively demanding for young children and requires a higher degree of working memory capacity (Bohnacker & Lindgren, 2020; Potter et al., 2019) since writers need to put into use the exact words for the needed expression in a particular content by using proper spelling and punctuation (Bel et al. 2010; Dockrell and Connelly, 2016; McNamara, Crossley, and McCarthy, 2010; Ravid et al., 2016; Tolchinsky, 2007).

In the analysis of the pragmatic acts of the clauses, the findings point to an effect of age on the production of narrative and non-narrative pragmatic clauses. This result is in line with findings from other research studies that investigated the effect of age in the production of narrative discourse. (Colletta et al., 2015; Colletta et al., 2010; Kunene Nicolas, 2015; Alamillo et al., 2013; Kunene Nicolas et al., 2017; Kunene, 2010; Park, 2014; Ahmed, 2015; Reilly and Polse, 2016; Samara-Kateeb, 2014). The results show that in both English modalities there was a decrease in narrative level while there was an increase in non-narrative pragmatic clauses with age. This means that there was a decrease in English narrative clauses as the age increased which points to the fact that adults have summarised the events of the story (narrative pragmatic clauses). Furthermore, the adults had more non-narrative pragmatic clauses than children (13-year-olds and 9-year-olds) in English oral and written narrative discourse production. The adults increased the use of comments, interpretations and explanations (non-narrative pragmatic act clauses) in their story recounts. Therefore, pragmatic diversity and complicated discourse structure improve with age (Colletta et

al., 2010; Kunene, 2010; Kunene Nicolas, 2015) and this is confirmed by the oral and written narrative and non-narrative pragmatic clauses of this study. The oral and written narratives of the adults navigated across the three phases in discourse structure, which is the narrative, the meta- and the para-narrative points (McNeill, 1992). This means that the oral and written narratives of adults used varied and complex discourse structures in their narrative production.

The narrative and non-narrative pragmatic clauses in siSwati had a different trend compared to English. Both the narrative and non-narrative pragmatic clauses increased as the age increased in the siSwati data. The adults had more narrative clauses and non-narrative pragmatic clauses in both oral and written modalities than the 13-year-old and the 9-year-olds. This finding is in line with other studies (Ahmed, 2015, Kunene, 2010) investigating the effect of age in narratives. In siSwati, the speaker gives a detailed account of the narrative in line with the cultural norms of orature (Kunene, 2010; Kunene Nicolas et al., 2017) and also uses various complicated discourse structures.

Finally, there were no significant age differences in the macro-structural analysis across the age groups. This finding is similar to findings by other researchers who conducted investigations that are similar to this study. Ahmed (2015), in her investigation of children and adult groups in two languages (English and isiZulu), found no significant differences in the effect of age on the macro-episodes. The macro-episodes clauses which are the higher-order hierarchical organisation of the narratives (Labov, 1972; Stein and Glenn, 1975) were recalled the same across all age groups in their study, similar to this study. Furthermore, all age groups produced a uniformly bigger number of Attempts in narrating the story which are connected to the goal. This result shows that they did not miss information therefore were able to comprehend and produce clear connections between events and characters.

5.3 Effect of Language on the Oral and Written English and siSwati Narrative Discourse Production

In this study, I hypothesised that the narrative discourse production in English would be different from the narrative composition in siSwati. This hypothesis was informed by what studies say about bilingual narrative production. Research (Makinen et al., 2020; Bedore, Fiestas et al., 2006; Fiestas and Peña, 2004) asserts that the language in which the narrative is produced has an

influence on how the story is re-counted and what parts of the story are emphasised or stressed. Indeed, the results of this study indicate that there was an effect of language on the length of narratives (clauses, words), in the pragmatic acts as well as on the macro-structure of the narratives. SiSwati narrative clauses were longer than English narrative clauses in both modalities. The number of clauses in a narrative give an adequate measure of its informational quantity or the length of the narrative production. Hence both siSwati written, and oral narratives were longer than the English narratives. This finding is in-line with the findings of Ahmed (2015) from her L1 Zulu participants who produced a greater number of clauses than the L2 English participants. It was expected that the siSwati length of clauses would be longer owing to the oral nature of the language (Kunene, 2010). On the other hand, English had more words than siSwati. This was predominantly because of the linguistic differences in the two languages; siSwati is an agglutinate language while English is an analytic language (Chapter 3).

An effect of language on the production of narrative clauses is present in the analysis of the pragmatic acts of the clauses. The narrative pragmatic clause is the highest across both languages but there were more narrative pragmatic clauses in siSwati than in English in these findings. This is because there were more detailed accounts in siSwati that tried to give an event-by-event account of the narration as seen from the stimulus compared to English. As mentioned previously, this was expected of siSwati, owing to its oral tradition. This result is in agreement with other researchers comparing English and Zulu, a Bantu language like siSwati (Ahmed, 2015; Kunene Nicolas, 2015; Kunene Nicolas et al., 2017), Zulu development of oral narratives (Kunene Nicolas, 2015), and Zulu and French oral narratives (Ahmed, 2015; Kunene Nicolas, 2015; Kunene Nicolas et al., 2017). Ahmed (2015) found that Zulu participants produced 90% narrative type of clauses whereas the L2 English participants produced 82% narrative type of clauses. Kunene Nicolas (2015) argued that the tendency to give a detailed account of the narrative comes from a tradition of orature, (Monaka et al., 2019; Sone, 2018) where narrating a story is like an act of entertainment.

The oral and written non-narrative pragmatic clauses were similar in both languages. Therefore, there were no significant differences in the two languages with respect to the non-narrative pragmatic clauses production. That means, for both English and siSwati productions, there were almost equal attempts to navigate between the meta- and para-narrative levels in the

narrative discourse productions. This result is similar to the findings in Ahmed (2015) where there were no significant differences in the production of non-narrative pragmatic clauses between English and Zulu languages. Therefore, it can be concluded that both English and siSwati show similar developmental patterns.

The macro-structural analysis of the two languages indicated that there were higher numbers of written and oral macro-episodes recalled in siSwati than in English. The large difference between English and siSwati numbers of macro-episodes is due to the nature of the task. In siSwati, the speaker gives a detailed account of the narrative in line with the cultural norms of orature (Kunene, 2010; Kunene Nicolas, Guidetti & Colletta, 2017), whereas in English, speakers give a comprehensive, summarised version (Ahmed, 2015). Furthermore, the high number of macro-episodes corresponds to the length of the narratives.

5.4 The Contribution of the Study

The findings of narrative discourse production have advanced the knowledge of language acquisition of siSwati and bilingual speakers. In Eswatini, there has been a lack of scholarship in the field of psycholinguistics. The only study on language acquisition, according to my knowledge was done forty years ago by Kunene (1979). In her study, she focused only on siSwati language acquisition. On the other hand, this study has not only focused on siSwati but has incorporated the reality of English-siSwati speakers who are bilinguals by studying both languages. Also, this exploratory study builds upon what was done by Kunene (1979). It has used a cross-sectional design with more participants, advancing on what Kunene (1979) did. Kunene (1979) carried out her study using one participant aged three years and used a longitudinal design.

Furthermore, this study has contributed to the growing body of Bantu language studies (such as Ahmed, 2015; Kunene, 2010) and there were similarities in these findings to the findings in other studies. Moreover, this study used contemporary tools such as the video/cartoon which has been used in recent Bantu languages.

5.5 Limitations

Though this study investigated both the written and oral modalities, its weak point was not including the study of gesture. Kunene Nicolas (2017) rightly points out that disregarding gestural

studies in the use of language and development leaves a huge gap in understanding completely the language processes in the human mind. Furthermore, the number of participants in this study was not large enough to draw some generalisations for a larger population. Moreover, this study could have extended its investigation to further characterise the linguistic structures that are found in narrative productions.

Lastly, the researcher was confronted by illegible handwritten narratives by the younger children (9-year-olds) which made it difficult to utilise all that was intended by the narrators. It should be noted that the younger children are still learning to write, a demanding task on its own, (Reilly and Polse, 2016), in addition, during research they were expected to recount a story in writing that they watched. These were two demanding mental processes that the children were subjected to, so it was very important for research to handle this cautiously.

5.6 Future Research Directions

It would be of interest to code the mazes or disfluencies (the entire group of self-repairs, hesitations, pauses etc.) common in oral narratives and also a product of a human mind monitoring mechanism (Fiestas et al., 2006; Aksu-Koç & Aktan-Erciyes, 2018) which were excluded in the analysis of clauses for this study to provide an opportunity to document problems associated with utterance formulation and word-finding processes in the human mind.

It would be worthwhile to also examine the effect of language and age on the narrative discourse production among atypical populations with special linguistic needs. Additionally, expanding this study by increasing the number of participants to create a standard baseline of narrative production, which covers a greater age range, more especially for the less-studied languages such as siSwati.

In studies in the future it might be of interest to study if verbal and written narrative discourse would be similar/different when subjects tell a story of their own choice instead of basing their story on the stimulus (video/cartoon) provided in this study.

Lastly, to overcome illegibility on the written task amongst the young participants, in future research it would be wise to administer the writing task and also take audio/video recordings of

the children reading their written narratives. This would eliminate future problems related to indecipherable handwriting.

5.7 Conclusion

Based on the quantitative analysis results of this linguistic discourse measuring the effect of age, the length and complexity of oral and written narratives increased with the increase in age. The adults and 13-year-olds had longer narratives compared to the 9-year-olds since they produced more clauses and words in spoken and written narratives, while the 9-year-olds had the shortest narratives in both modalities. Furthermore, the pragmatic diversity increased with age, therefore the narrative and the non-narrative pragmatic clauses increased with age. The 13-year-olds had more narrative clauses while the adults had more non-narrative pragmatic clauses in both oral and written modalities compared to the 9-year-olds.

Finally, with respect to language, the length, pragmatic type of clause and the ability to recall macro-episodes of oral and written narratives were influenced by language. In terms of length of narratives, siSwati narrative clauses were longer than the English narrative clauses in both modalities. There was a significant difference in the narrative pragmatic clause between the two languages as siSwati had a higher number of narrative pragmatic clauses across both modalities compared to English. On the other hand, there was no significant difference in both languages in relation to non-narrative pragmatic clauses. This entails that both English and siSwati ventured into complex linguistic structures (para-narrative and meta-narrative levels) in both modalities.

Therefore, the differences in information processing systems that occur in the narrative skills of the two languages of the English-siSwati early sequential bilingual young and older children and adults do not seem to impede the development of narrative skills in both their languages. When looking at typically developing children, dual language or second language learning seems to have moderately little effect on narrative skills (Pearson, 2002). The findings in this study are similar to other studies (Lofranco et al., 2006) conducted in productive narrative skills of the children's two languages. Furthermore, Pearson (2002) found that though bilingual learners could be weak in other areas of narrative skills, this weakness improved as the age advanced.

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APPENDIX A ETHICS CLEARANCE CERTIFICATE

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Mazibuko

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H17/09/18**
PROJECT TITLE	A comparative study of verbal and written productions in narrative discourse: The case of Swazi bilinguals
INVESTIGATOR(S)	Mrs C Mazibuko
SCHOOL/DEPARTMENT	School of Literature, Language and Media/
DATE CONSIDERED	15 September 2017
DECISION OF THE COMMITTEE	Approved
EXPIRY DATE	19 November 2020

DATE 20 November 2017 **CHAIRPERSON** (Professor J Knight)

cc: Supervisor : Dr R Kunene Nicolas

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

_____ _____/_____/_____
Signature Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

APPENDIX B PERMISSION FROM MINISTRY OF EDUCATION

The Government of the Kingdom of Swaziland

Ministry of Education & Training

Tel: (+268) 24042491/5
Fax:(+268) 2404 3880

P. O. Box 39
Mbabane, Swaziland

15 May, 2017

Attention:
Headteachers:
Manzini Nazarene Primary School
Manzini Nazarene Practising School
Manzini Nazarene High School

Through:
Regional Education Officer – Manzini

Dear Colleague,

RE: REQUEST FOR PERMISSION TO COLLECT DATA FOR UNIVERSITY OF THE WITWATERSRAND – JOHANNESBURG STUDENT NO. 1240898 – MS. CYNTHIA NOMAGUGU MAZIBUKO

1. Reference is made to the above mentioned subjects.

2. The Ministry of Education and Training has received a request from Ms. Cynthia Nomagugu Mazibuko, a student at Witwatersrand University, Johannesburg, that in order for her to fulfill her academic requirements at Witwatersrand University, she has to collect data (conduct research) and her study or research topic is *"A comparative study of verbal and written productions in narrative discourse: The case of Swazi bilinguals"* The population for her study comprises of primary and high school students in the Manzini region. The sample would comprise of a mixed group of males and females. All details concerning the study are stated in the participants consent form which will have to be signed by all participants before Ms. Mazibuko begins her data collection. Please note that parents will have to consent for all the participants below the age of 18 years participating in this study.

3. The Ministry of Education and Training request your office to assist Ms. Mazibuko by allowing her to use above mentioned schools in the Manzini region as her research site as well as facilitate her by giving her all the support she needs in her data collection process. Data collection period is 12 weeks.

DR. S.M. MTSHALI-DLAMINI
DIRECTOR OF EDUCATION AND TRAINING

cc: Regional Education Officers – Manzini
Chief Inspector – Primary and Secondary
Headteachers – Above mentioned schools
Supervisor – Moeketsi M.M.

MINISTRY OF EDUCATION TRAINING 2017 -05- 15 BOX 39 MBABANE SWAZILAND

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APPENDIX C PERMISSION FROM SOUTHERN AFRICA NAZARENE UNIVERSITY

SOUTHERN AFRICA NAZARENE UNIVERSITY

ADMINISTRATION

P.O. Box 6000 Manzini M200, Kingdom of Swaziland
Tel: (+268) 2505 5748 Fax: (+268) 2505 2839
Email: admin@sanu.ac.sz, Manzini Nazarene Mission Station

SANU

21st April, 2017

Dear Researcher

RE: APPROVAL IN RESPECT OF REQUEST TO CONDUCT RESEARCH - CYNTHIA N. MAZIBUKO

This letter serves to inform you that approval is hereby granted to the above-mentioned researcher to proceed with conducting the study entitled ***"A Comparative Study of Verbal and Written Productions in Narrative Discourse: The Case of Swazi Bilinguals"***. The responsibility rests with the researcher to negotiate appropriate and relevant time schedules with the Faculty involved to conduct the research. A copy of this letter must be presented to both the Faculty Dean and the relevant Head of Department confirming that permission has been granted for the research to be conducted.

The researcher may proceed with the above study subject to meeting the conditions listed below. Approval may be withdrawn should any of the conditions be flouted:

1. The Faculty Dean and relevant Head of Department concerned must be presented with a copy of the letter that would indicate that the said researcher/s has/have been granted permission from the PVC/ Registrar Southern Africa Nazarene University (SANU) to conduct the research study.
2. The researcher will make every effort to obtain the goodwill and co-operation of the Dean, HOD, lecturers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the University while those that opt not to participate will not be penalised in any way.
3. Research may only be conducted in agreement with the people concerned so that it does not jeopardise the normal teaching and learning activities in the University.
4. The researcher is responsible for supplying and utilising his/her own research resources such as stationery, photocopies, transport, faxes and telephone and should not depend on the goodwill of the institution or faculty visited for supplying such resources.
5. The names of the faculty officials, lecturers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals.

6. On completion of the study the researcher must supply the Faculty Dean with one hard cover bound and an electronic copy of the research.
7. The researcher may be expected to provide short presentations on the purpose, findings and recommendations of their study to the faculty concerned.

The Southern Africa Nazarene University wishes you well in this significant undertaking and looks forward to examining the findings of your study.

Kind regards

Mbingo

Samaria Mbingo

PVC - Administration

Email: samariambi@sanu.ac.sz

Telephone: +268 2505 5749

Southern Africa Nazarene University
P.O. Box 6249 Manzini M200 Kingdom of Swaziland
Tel: (+268) 2505 [illegible] Fax: (+268) 2505 2530
ADMINISTRATION

APPENDIX D PARTICIPANT INFORMATION SHEET (ADULT)

Dear Sir/Madam

I am Cynthia N. Mazibuko under the supervision of Dr Ramona Kunene Nicolas from the Department of Linguistics at the University of the Witwatersrand. I request consent from you to participate in a research study titled **"An Analysis of Oral and Written Narrative Discourse Production of Swazi Bilinguals".**

Purpose of the Study:

This research is aimed at investigating the role of bilingualism and biliteracy in formal education. In conducting the study we want to understand where and when Swazi bilingual students are confronted by oral and literacy challenges which affect successful academic performance. With this research study we hope to come up with a contribution on how to overcome the challenges in oral and written English language to enhance performance in formal education.

Why you have been chosen:

Our study requires the participation of 15 young adult university students between the ages of 19 and 30 years whose mother tongue is siSwati. You have been selected because you fall under this group.

Procedure:

With your permission the study will be carried out by showing you a short wordless video clip from a laptop computer and a wordless picture book to peruse through. You will watch the cartoon clip twice and then go through the wordless picture book twice and thereafter you will be asked to narrate orally what you saw in both siSwati and English at different occasions while this is (Audio) recorded. You will also be asked to narrate in writing what you saw in both languages (siSwati and English) at different times too. By undergoing these tasks the researcher will be able to conduct empirical research on discourse of Swazi bilinguals. This exercise will take 1.5 hours per student to do all the tasks mentioned above.

Confidentiality:

The audio recordings and written scripts will be completely confidential and anonymous and only my supervisor and I will have access to information and all audio recordings. At the conclusion of the study, learners' responses will be reported as group results only and the identity of the participant will not be disclosed and only pseudonyms will be used in my final research report. Participation in the study is voluntary. Your decision whether or not to participate in the research study will not affect your daily routine at university. Should you give your consent to participate it should be noted that if you change your mind you are free to end participation at any time. If you do participate in the study you may choose not to answer some or all of the questions and you have the choice to stop participation in this study anytime and without any penalty.Once the study has been completed, a research report will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to your university upon request. Should you have any questions or desire for further information, please feel free to contact:

Cynthia Nomagugu Mazibuko
7655 8883
cynhle@yahoo.com

Dr Ramona Kunene Nicolas
0117174183
Ramona.KuneneNicolas@wits.ac.za

APPENDIX E ADULT RESEARCH CONSENT FORM

I _____ give consent to Cynthia N. Mazibuko to conduct research on her research titled **'An Analysis of Oral and Written Narrative Discourse Production of Swazi Bilinguals'.**

I understand her work and it has been fully explained that:

- Participation in this study is voluntary.
- Anonymity and confidentiality has been guaranteed
- There are no direct risks or benefits for participation in this study.

☐ I agree to take part in this study

☐ I do not agree to take part in this study

☐ I agree to be recorded using audio/video recording

☐ I do not agree to be recorded using audio/video recording

_____ _____

Signature of Participant Date

APPENDIX F (CHILD) PARTICIPANT INFORMATION SHEET

Title of Project: 'An Analysis of Oral and Written Narrative Discourse Production of Swazi Bilinguals'.

Name of Researcher: Cynthia N. Mazibuko

(ALL THE CONTENT BELOW WILL BE VERBALISED BY THE RESEARCHER)

I want to ask you to take part in a research study I am doing. A research study is a special way to find out about something. I am trying to find out more about where and when do Swazi children who use both English and siSwati come across difficulties in their written and spoken language. You are asked to join the study because I need children of your age, who know siSwati and English to help me understand some information.

If you want to be in this study, this is what will happen:

- I will show you a short video of a cartoon that has no words and a picture book with no words written on it.
- After you watch the cartoon clip twice and go through the wordless picture book twice then you will be asked to tell me a story about what you saw in siSwati and English at different times while I record your voice.
- I will also ask you to write a story about what you saw in the video clip and picture book using siSwati and English at different times too.

Can anything bad happen to me?

If you do this study, you will not get hurt. If you feel too shy or uneasy, you do not have to do it and you will not be punished for that. There are no right or wrong answers and this work will not be part of your school report.

Can anything good happen to me?

I do not know if being in this research study will help you with your learning. But I do hope to learn something that will help you and other people someday.

Will anyone know I am in the study?

I will not tell anyone you took part in this study and any information you give me will be kept safely and privately. When I am done with the study, I will write a report about what I found out. I will not use your name in the report.

What if I do not want to do this study?

You can choose not to take part in this study and that is ok. You are not forced to be in this study, it is up to you. If you say yes now, but you change your mind later, that's okay too. All you have to do is tell me. If you do take part in the study you may choose not to answer some or all of the questions and you have the choice to stop participation in this study anytime and you will not be punished for doing so.

APPENDIX G (CHILD) RESEARCH ASSENT FORM

If you want to be in this study titled **'An Analysis of Oral and Written Narrative Discourse Production of Swazi Bilinguals'** please sign or print your name as an informal spoken agreement. You may keep a copy for future purposes.

☐ Yes, I will be in this research study.

☐ No, I don't want to do this.

☐ I agree to be recorded using audio/video recording

☐ I do not agree to be recorded using audio/video recording

_____ _____

Child's Name Signature of the child

_____ _____ _____

Person obtaining Assent Signature Date

APPENDIX H PARTICIPANT INFORMATION SHEET (PARENT/GUARDIAN)

Dear Parent or guardian:

I am Cynthia N. Mazibuko under the supervision of Dr Ramona Kunene Nicolas from the Department of Linguistics at the University of the Witwatersrand. I request consent for your child to participate in a research study entitled '**An Analysis of Oral and Written Narrative Discourse Production of Swazi Bilinguals'.**

Purpose of the Study:

This research is aimed at investigating the role of bilingualism and biliteracy in formal education. In conducting the study we want to understand where and when Swazi bilingual students are confronted by oral and literacy challenges which affect successful academic performance. With this research study we hope to come up with a contribution on how to overcome the challenges in oral and written English language to enhance performance in formal education.

Why your child is chosen:

Our study requires the participation of 15 children who are between the ages of 8 and 9 and another group of 15 children who are between the ages of 13 and 14, whose mother tongue is siSwati. Your child is selected if they fall under any of these group ages.

Procedure: With your permission the study will be carried out by showing a short wordless video clip from a laptop computer and a wordless picture book to your child. The child will watch the cartoon clip twice and also go through the wordless picture book twice and then will be asked to narrate orally what they saw in both their mother tongue and in English at different occasions while this is audio/video recorded. The child will also be asked to narrate in writing what they saw in both languages at different times too. By undergoing these tasks the researcher will be able to conduct empirical research on discourse of Swazi bilinguals. This exercise will take 1.5 hours per child to do all these tasks mentioned above.

Confidentiality:

The audio/video recordings and written scripts will be completely confidential and anonymous and only my supervisor and I will have access to information and all recordings. At the conclusion of the study, learners' responses will be reported as group results only and the identity of the participant will not be disclosed and only pseudonyms will be used in my final research report. Participation in the study is voluntary and will not affect the child's daily routine at school. Should you give your consent for your child's participation in the study it should be noted that the child may choose not to answer some or all of the questions and has the choice to stop participation in this study anytime and without any penalty.Once the study has been completed, a research report will be available online through the university library website. If you

wish to receive a summary of this report, I will be happy to send it to your school upon request. Should you have any questions or desire for further information, please feel free to contact:

Cynthia Nomagugu Mazibuko	Dr Ramona Kunene Nicolas
268 7655 8883- cynhle@yahoo.com	011717 4183-Ramona.KuneneNicolas@wits.ac.za

APPENDIX I PARENT/GUARDIAN RESEARCH CONSENT FORM

I _____ give consent to Cynthia N. Mazibuko to conduct her research titled **'An Analysis of Oral and Written Narrative Discourse Production of Swazi Bilinguals'.**

I understand her work and it has been fully explained that:

Participation of my child (name of child): _____ in this study is voluntary.

- Anonymity and confidentiality of my child's information has been guaranteed
- There are no direct risks or benefits for participation in this study.

☐ I agree for my child to take part in this study

☐ I do not agree for my child to take part in this study

☐ I agree for my child to be recorded using audio/video recording

☐ I do not agree for my child to be recorded using audio/video recording

_____ _____

Signature of Parent Date

APPENDIX J RESEARCH PROTOCOL AND PROCEDURE FOR THE EXPERIMENT – "THE BOY WHO LEARNED TO FLY, USAIN BOLT"

Setting: school settings are preferable to control the familiarity variable (to preserve a formal relationship between adult and participant). The interviewer is not the teacher and the data is going to be recorded in the classroom and no other people will be wandering about.

NOTE: it is however important to have a friendly disposition to remove shyness or fear from the participant.

Equipment

- In the first room by one corner there will be a laptop which will allow the participant to watch the cartoon (the cartoon is the first three minutes of "The Boy who Learned to Fly, Usain Bolt")
- A digital tape recorder /video camcorder will be positioned in order to capture all the sound during the interaction between the participant and the interviewer
- In another room there will be an arrangement of desks and chairs on which participants will sit on as they write with pieces of paper and pen on each desk

PART 1

Phase 1: Viewing of the cartoon

The participant will be ushered into the room where they will be requested to sit on a chair with a laptop on the desk. The interviewer will first tell the participant that she/he will first watch the cartoon on the laptop twice and then be expected to tell the interviewer all that she/he saw on the video while seated away from the laptop in a place prepared where there is an audio recorder to capture all they will say. The instruction will also be given in siSwati during the siSwati interview.

The interviewer will play the video and the participant will begin watching seated alone while the interviewer goes to sit in the place where the oral interview will be conducted.

Phase 2: Oral narration of the cartoon

(The participant will be audio recorded in interaction with interviewer)

Remove the PC and position the participant facing the tape recorder, the interviewer sits by his side.

Introduction:

The interviewer will first introduce herself to the participant and say what her name and surname is and then ask the participant to say his/her name so as to keep track of the names of participants' recordings.

The interviewer will further as the participants if they liked the video or not. Then the interviewer would then ask the participant to tell her the story they have just seen, the best way they can.

Prompts:

1. In case of silence, too short account or synthetic summary, ask "what else happened? Can you tell more about it?

2. During the verbal narration the examiner/interviewer can provide only back-channel responses (e.g. "Aha," "yes") or restate the child's last utterance to help the participant.

3. If you think the participant has finished his account, ask "have you finished? Anything else happened?"

Then the interviewer would thank the participant and then usher him/her to the next room where the narration of the cartoon in writing would be done (or vice versa).

PART 2

Phase 3: Written narration of the cartoon

(The participant will be sitting alone on her chair with a pen and a paper on the desk before her and the interviewer standing at the front of the room facing the participants as they

write. The participant will be requested to first write their name and surname on the piece of paper before them so as to keep track of the owner of the written narration.)

Procedure: (say the following to the participants and this will be translated into siSwati during the siSwati narration)

"You have watched and narrated orally the cartoon of "The Boy who Learned to Fly, Usain Bolt". Now is the time to tell me in writing all that you saw in the cartoon as best as you can".

The participant will be allowed to write for a maximum of 15 minutes thereafter the papers will be collected by the interviewer. There is a possibility that there could be more than one participant writing in the same room so the interviewer will write the names and surnames of the participants and the time sheet at which each participant started the written narration and the time the participant submitted his/her written narration.

APPENDIX K LIST OF MICRO-EPISODES FOR THE CARTOON ENTITLED "THE BOY WHO LEARNED TO FLY, USAIN BOLT"

	Code	Description of Micro-episode
1	A1	The boy comes out of house >Umfana uphuma ekhaya
2	A2	A woman appears at the door carrying paper bag>Make uvela emnyango uphetse iphephabheki
3	A3	Boy runs and slips>Umfana asagijima ashelele
4	A4	Boy continues to run>Umfana uyachubeka nekugijima
5	B1	Dog suddenly appears>Kuvele inja ngekuphatima kweliso
6	B2	Dog follows boy>Inja ilandzele umfana
7	B3	Boy speeds away from dog>Umfana ushiya inja ngelitubane
8	B4	Boy runs onto men playing cards> umfana uphatamisa emadvodza ladlala emakhadi
9	B5	Boy jumps on the rails>Umfana uzubela ebondzeni lwetingodvo
10	B6	Men stop game and look at boy>Emadvodza eyekela kudlala abuka umfana
11	B7	Boy jumps off and continues to run>Umfana wehla ebondzeni uchubeka nekugijima
12	B8	Dogs slams into the rail>Inja ishayisa lubondza lwetingodvo
13	B9	Boy looks back at the dog>Umfana usuluka ubuka inja emuva
14	C1	Boy continues to run through the trees>Umfana uyachubeka ugijima ekhatsi emahlatsini
15	C2	Boy runs onto the field>Umfana ungena ngematubane enkhundleni yekudla
16	C3	Boy runs alongside the man on the soccer field>Umfana ugijimisana nendvodza enkhundleni yebhola

17	C4	The boy saw the moving soccerball>Umfana ubona ibhola iyagicika
18	C5	The boy kicks the ball into the goal post>Umfana ukhahlela ibhola icondza epalini-
19	C6	The boy scores a goal>Umfana ushaya ligoli
20	C7	The boy waves his arms>Umfana uyajayiva emva kwekushaya ligoli
21	C8	The boy runs off the field>Umfana uyagijima uphuma enkhundleni
22	D1	A man walks by carrying paper>Kwendlula indvodza lefundza/lephetse emaphepha
23	D2	The boy runs past the man>Umfana undlula indvodza uyagijima
24	D3	The papers scatter off the man's hands>Emaphepha ayasaphaka esandleni salendvodza
25	D4	The man watches the boy run past>Lendvodza iyambuka umfana nakendlula agijima
26	D5	The man smiles and nods>Indvodza iyamoyitela inikina inhloko
27	E1	The boy runs up the stairs>Umfana ugibela/ukhwela titebhisi uyagijima

APPENDIX L TIME SHEETS FOR ENGLISH AND SISWATI WRITTEN NARRATIVES

SERIAL NUMBER	ENGLISH WRITTEN	SISWATI WRITTEN
09F01	8.45	7
09F02	9.34	7.1
09M03	9.53	7.55
09M04	10.15	8.25
09M05	10	8.3
09M06	10.3	8
09F07	8.55	7.35
09F08	11.3	8.55
09F09	14.58	13.35
09M10	11.55	10
09F11	10.50	10
09M12	12.05	10.5
09F13	13.49	10.2
09F14	13.26	11
09M15	14.35	10.55
13F16	5.1	5.05
13F17	5.25	5.45
13M18	5.44	5
13F19	5.15	6
13M20	5.56	6.15
13M21	5.2	6.05
13M22	6.15	7.3
13F23	7.2	7.5
13F24	6.2	7.08
13M25	6.35	7.4
13M26	8.05	8
13M27	7.35	8.1

13F28	9.05	8
13F29	8.08	8
13M30	9.05	8.5
AF31	8.05	5.1
AF32	5.1	4.5
AF33	6.06	5
AF34	5.55	5.15
AF35	5.45	5.35
AM36	6.11	5.45
AF37	8.05	5.5
AF38	7.55	6
AF39	8.1	5.4
AM40	8.15	5
AM41	7.45	6
AF42	9.2	6.1
AF43	9.15	6
AF44	9	6.5
AF45	8.15	6.55

APPENDIX M TRANSCRIPTION CONVENTIONS FOR SPEECH

(From Kunene, 2010)

- * = Precedes the phoneme or syllable which does not correspond to the standard form
- / = Sign at the end of a word signals an unfinished word
- Heu mmm = Signals hesitations
- xxxx = Notes the segments impossible to identify – x per syllable
- {} = Signals the transcribers' comments
- Capital letters = Are used to indicate strongly accentuated words
- //= Highlights pauses between words
- :: = Used to note vocalic lengthening e.g., we::ll for well
- ?= used for a question in the narrative posed by participant

APPENDIX N SISWATI DATA, ORAL NARRATIVE EXTRACTS

(Code names have been used, VN stands for Verbal Narrative)

- **S09M3VN : Child, 9-year-old, Male**

Ngibone umfana ekhaya <> make atsi umunika lakatakudla eskolweni <>wagijima<> watsi ukulelikona washelela. <>Waphuma // <>wagijima, <>kwaphuma inja <>ngatsi beyise:: *butchery,* <>yamcosha. <>Wachubeka wagijima <>wahamba etitulweni nasematafuleni<> Lenja yangcundza <>yachubeka yamcosha. <> Wakhandza badlala ibhola, <>wagijima<> wakhahlela lebhola, <> wabese wachubeka wagijima<>bekunalomunye babe<> aphetse emaphepha, <>kwaphephuka lamaphepha<>nakagijima lomfana. <>Nguloko lengikubonile

English Translation

I saw a boy at home<> his mother giving him something to eat at school<> he ran<> he slipped by the corner <> he got out//<> he ran<> a dog came out <> I think it was in the:: butchery <> it chased him <> he continued running <> he walked over the chairs and tables <> the dog got pumped <> it continued to chase him <> he found people playing with a ball <> he ran <> he kicked the ball <> he then continued to run <> there was a man <> he was carrying papers <> the papers got blown away <> when the boy was running <> that is all I saw

- **S13F17VN: Child, 13-year-old, Female**

Kunemfana lomncane <>logcoke timphahla tesikolwa. <> Uphuma ekh/ endlini yakubo, <>make wakhe uzama kumuniketa sikaf'tini sase saseskolweni, <>kodvwa usishiyile <>*because,* ngoba ujakile. <>ugijima kakhulu lomfana, <>akemi kubuka kutsi wengca bani. <>Ufika ekoneni <> lapho khona ugijimisana nenja lencane. <>Besewengca lapho khona kunemadvodza lamabili<>ladlala emakhadi. <>Ugibela lamatafuleni<> bese uyawengca. <> Wase ungena egrawundini lekudlala ibhola<>, wa/ watsatsa lebhola <>wadlala ngayo, <> wase uphindze uyabashiya, <> wagijima, <>wengca umuntfu lobhala emaphepha, <> wawisa lamaphepha. <>Wachubeka wagijima <>wangemi kuwabutsa, <>wase unyuka titebhisi.

English Translation

There is a little boy <> who is wearing a school uniform <> he is coming out from his hom/ house <> his mother is trying to give him a lunch box for school <> but he left it behind <> because he is in a rush <> the boy is running very fast <> he doesn't stop to see who he is passing by <> he gets to a corner <> where he runs with a little dog <> then he passes where there are two men <> who were playing a game of cards <> he climbs the tables <> he jumps over them <> he entered a playground <> he to/took the ball <> he played with it <> he then left them behind <> he ran <> he passed a person writing papers <> he threw the papers down <> he continued to run <> he never stopped to pick them up <> then he climbed up the steps

- **SAF44VN: Adults, Female**

Kule video lengiyibukele, <>ngibone umfana lomncane<> lophuma ekhaya. <> uphuma uyagijima<> Make wakhe umuniketa sikaf'tini sekudla<>*but* akaboni kutsi x x x x <>kukhona lakajakele khona. <>Nakasa chubeka nekugijima umfana, <>endleleni kulelinye likhaya kuphuma inja, <>iyamucosha. <> Nayimuchosha inja, <>ugibela ngekubaleka {repairs statement} <>ukhandze emadvodza lamabili <>ladlala lidayisi, <>agibele tikwelitafula<>abalekela lenja labeyisolo imucosha <> Ehle lapho <> achubeke abaleke, <> inja isale kulamadvodza lamabili<> Nasachubeka nekugijima egrawundini lekudlala ibhola, <>lapho akhandze khona bobhuti labili <> labadlala ibhola. <>Nakasagijima, <> nyalosophetse ibhola leyisetinyaweni takhe, <>ayikhahlele ingene epalini. <>Achubeke nendlela yakhe, < uyagijima. <>Achubeke nekugijima, <>ahlangane nalomunye babe, <> lofake likepisi, <> lophetse emaphepha. <>Agijime amengce <>awise emaphepha alobabe, <>angajiki kutom'butsela <> kodvwa achubeke neluhambo lwakhe<> Ekugcineni, kuphela lapho khona unyuka titebhisi. <> Ngicabanga kutsi besekafikile<> labeka gijimela kuya khona.

English Translation

In the video I watched <> I saw a little boy <> he's leaving home <> he leaves home running <> his mother is giving him his lunchbox <> but he doesn't see that xxxx <> he is rushing somewhere <> while the boy still continued to run <> along the way in a certain homestead a dog came out <> it chased him <> as the dog chased him <> he climbed running <>{repairs statement}<> he finds two men <> they were playing a game of dice <> he jumps onto the table <> running away from the dog chasing him <> he jumps down from there <> he continued running <> the dog remained with the two men <> while he continued to run in the playground <> there he found two gentlemen <> they were playing a ball <> while he was still running <> now he has a ball by his feet <> he kicks it and scores <> he continued on his way <> he is running <> he continued running <> he came across a man <> who is wearing a cap <> he is carrying papers <> he runs past him <> he threw the man's papers down <> he never went back

to pick up the man's papers <> but he continued with his journey <> it comes to an end at the time he climbs up steps <> I think he had arrived <> where he was running too

APPENDIX O SISWATI WRITTEN NARRATIVE EXTRACTS

(Code names have been used, WN stands for Written Narrative)

- **S09F07WN: Child 9-year-old, Female**

Ngibone umtfwana<> aphuma endlini <>ngekugijima<>Make wakhe beka phetse liplasiziki lena kudla<> lomtfwana ugijimile, <>wagijima, <>wagijima, <>wagijima, <>wafika engrawundini<>washaya ibhola epalini <>wagijima <>wawisa emaphepha <>wafika emlilweni<>yaphela.

English Translation

I saw a child <> the child coming out of the house <> he's running <> his mother was carrying a plastic bag with food <> the child ran <> he ran <> he ran <> he ran <> he arrived in a playground <> he hit the ball into the poles <> he ran <> he threw papers down <> he reached the fire <> it ends

- **S13F27WN: Child, 13-year-old, Female**

Kulevideo lengiyibukele<> ngibone umfana <>losuka ekhaya ejahile, <>wagijima <>waze washiya kudla kwakhe kwesikolo.<> Wacubeka {spelling error} ngekugijima<> waze wacoshwa inja <> ngolapho wangeta litubane lakhe <>afuna kuyishiya. <>Asagijima <>waphatamisa bantfu labadzala, <>emadvodza lamabili adlala emakhadi. <>Wacubeka {spelling error} wagijima <>Wahlangana nebafana <>badlala ibhola <>wagijima egrawundini <>washaya ligoli <>wacubeka {spelling error} nekugijima. <> Waphatamisa lelinye lijaha, <>wawisa emaphepha alobabe. <>Wachubeka waze wafika esikolweni.

English Translation

In the video I watched <> I saw a boy <> who leaves home in a rush <> he ran <> he left behind his lunchbox <> he continued running <> until he was chased by a dog <> that is when he ran even faster <> he wanted to outpace it <> while he was running <> he disturbed elderly people <> two men playing a game of cards <> he continued to run <> he came across boys <> who were playing with a ball <> he ran on the playground <> he scored a goal <> he continued running <> he disturbed a certain gentleman <> he threw down the man's papers <> he continued until he reached school

- **SAM40WN: Adult, Male**

Ngibone umfana <>aphuma ngematubane endlini, <>kwaba na Make lovelako ngemuva kwakhe emnyango. <>Utsite asagijima lomfanyana <>walandzelwa yinja<>nayo lekubonakele kutsi uyayishiya ngematubane. <>Kutsite kusenjalo wafika enkhundleni yetemidlalo <>wakhandza badlala ibhola, <> kwabonakala kutsi naloyo bekagijima nebhola <> uyamengca lomfana<> wakhahlela lebhola<> wayifaka emapalini.<>Lomfana wengcile <> lapho atsatsele ngalo litubane<>wafike wakhandza bantfu bahleti etafuleni, <>watsi makengca lapho<> kwaphephuka emaphepha. <>Ekugcineni ufike wakhandza lomunye umuntfu loyindvodza <>aphetse emaphepha, <> nawo laphephukile abengca lapho. <>Kusho kona kutsi uyagijima impela lomfana <> ushiya inyosi.

English Translation

I see a boy <> he's leaving the house running <> a woman appears at the door behind him <> while the little boy is running <> he was followed by a dog <> which he clearly outpaced in his speed <> suddenly he reached a playground <> he found people playing a ball game <> it was clear that the person who was running with the ball <> the person outpaces the boy <> he kicked the ball <> he scored <> the boy ran off <> he still continued running <> he found people sitting on a table <> when he passed there <> the papers flipped over <> at the end he found a person{repairs statement} a man <> he was carrying papers <> that flipped over when he was passing by <> it clearly shows that the boy can really run <> he has lightning speed

"Ngibone umtfwana<> aphuma endlini <>ngekugijima<>Make wakhe beka phetse liplasiziki lena kudla<> lomtfwana ugijimile, <>wagijima, <>wagijima, <>wagijima, <>wafika engrawundini<>washaya ibhola epalini <>wagijima <>wawisa emaphepha <>wafika emlilweni<>yaphela.

English Translation

I saw a child <> the child coming out of the house <> he's running <> his mother was carrying a plastic bag with food <> the child ran <> he ran <> he ran <> he ran <> he arrived in a playground <> he hit the ball into the poles <> he ran <> he threw papers down <> he reached the fire <> it ends

- **S13F27WN: Child, 13-year-old, Female**

Kulevideo lengiyibukele<> ngibone umfana <>losuka ekhaya ejahile, <>wagijima <>waze washiya kudla kwakhe kwesikolo.<> Wacubeka {spelling error} ngekugijima<> waze wacoshwa inja <> ngolapho wangeta litubane lakhe <>afuna kuyishiya. <>Asagijima <>waphatamisa bantfu labadzala, <>emadvodza lamabili adlala emakhadi. <>Wacubeka {spelling error} wagijima <>Wahlangana nebafana <>badlala ibhola <>wagijima egrawundini <>washaya ligoli <>wacubeka {spelling error} nekugijima. <> Waphatamisa lelinye lijaha, <>wawisa emaphepha alobabe. <>Wachubeka waze wafika esikolweni.

English Translation

In the video I watched <> I saw a boy <> who leaves home in a rush <> he ran <> he left behind his lunchbox <> he continued running <> until he was chased by a dog <> that is when he ran even faster <> he wanted to outpace it <> while he was running <> he disturbed elderly people <> two men playing a game of cards <> he continued to run <> he came across boys <> who were playing with a ball <> he ran on the playground <> he scored a goal <> he continued running <> he disturbed a certain gentleman <> he threw down the man's papers <> he continued until he reached school

- **SAM40WN: Adult, Male**

Ngibone umfana <>aphuma ngematubane endlini, <>kwaba na Make lovelako ngemuva kwakhe emnyango. <>Utsite asagijima lomfanyana <>walandzelwa yinja<>nayo lekubonakele kutsi uyayishiya ngematubane. <>Kutsite kusenjalo wafika enkhundleni yetemidlalo <>wakhandza badlala ibhola, <> kwabonakala kutsi naloyo bekagijima nebhola <> uyamengca lomfana<> wakhahlela lebhola<> wayifaka emapalini.<>Lomfana wengcile <> lapho atsatsele ngalo litubane<>wafike wakhandza bantfu bahleti etafuleni, <>watsi makengca lapho<> kwaphephuka emaphepha. <>Ekugcineni ufike wakhandza lomunye umuntfu loyindvodza <>aphetse emaphepha, <> nawo laphephukile abengca lapho. <>Kusho kona kutsi uyagijima impela lomfana <> ushiya inyosi.

English Translation

I see a boy <> he's leaving the house running <> a woman appears at the door behind him <> while the little boy is running <> he was followed by a dog <> which he clearly outpaced in his speed <> suddenly he reached a playground <> he found people playing a ball game <> it was clear that the person who was running with the ball <> the person outpaces the boy <> he kicked the ball <> he scored <> the boy ran off <> he still continued running <> he found people sitting on a table <> when he passed there <> the papers flipped over <> at the end he found a person{repairs statement} a man <> he was carrying papers <> that flipped over when he was passing by <> it clearly shows that the boy can really run <> he has lightning speed"

APPENDIX P ENGLISH DATA, ORAL NARRATIVE EXTRACTS

(Code names have been used, VN stands for Verbal Narrative)

- **E09M04VN: Child, 9-year-old, Male**

xx I saw // I saw a boy <>opening the door <>and came out as fast as he could <>and he went <>and, and the dog and the dog he me/ met<> he met with the dog<> and the dog chased the, the boy <>and he came<>I saw it was a restaurant<>x he jumped over the wall <>and, and, and the dog, and the dog was chasing him <>and the dog it, it was having a, a, a, a door or something <>and the dog was stucked <>and and the boy and the boy ran away <> and, and, and meet a, a, a person <>who was reading papers <>and, and he was running <>and the paper of the man fall down and and xx

- **E13F16VN: Child, 13-year-old, Female**

In the video<> I saw a boy <>running out of the door <>and his mom coming out with his lunch <>and he ran <>until a dog barked <>he continued running<>the dog chased him<> and he climbed up a wall//<> something like a wall made of wood <>and he ran on top of it <>the dog continued chasing him <> until it hit the wood <> and he continued running <>until he reached a football pitch <>where there was a soccer player running <>he ran along the football player <>and he scored a goal <>and he continued running <>until he reached a guy <>and something which looked like a gate<> and he passed a guy <>and the papers carried by the guy fly off<> he continued running<>until he climbed up stairs

- **EAM41VN: Adult, Male**

There was this small boy <>I think he was on his way to school <>he seems like a naughty boy <>because the minute he come out of the house <>her mother called her <> maybe there's something that he has left behind <>and everywhere he goes <>he cause troubles.<>there's this teacher// <>or someone who's handling files there <>he just throw this file away <> but:: I saw a picture of a school,<>I think he was on his way to school

APPENDIX Q ENGLISH WRITTEN NARRATIVE EXTRACTS

(Code names have been used, WN stands for Written Narrative)

- **E09F14WN: Child, 9-year-old, Female**

I saw a dog and a child <>the dog want to bit the child <>and the child rain away <>and the dog hat to the fence <>and child rain away <>and the dog cannot see the child<>and a man want to kich a boll <>and the child kich the boll<> and ununder man he wats to read a paper<> and te boy ran<> and the paper foll down<> and the boy ran <>and gettin to ununder house

- **E13M18WN: Child, 13-year-old, Male**

In the beginning of the short film<>I saw a young African boy<> leaving his home in a rush<> so much that he forgot his lunch box, <>and on his journey he almost fell down <>because he was running very fast <>he was then pursuited by a dog <>which he outran for a certain distance <>then he jumped on top of a table <>where the dog bumped his head<>and stopped chasing him. <>The boy then ran into a soccer field <>where he was running side by side with a man<>who he outran <> and that showed me that he was really in a rush. <>he then got a ball <>and took a shot<> and he scored a goal <> the boy was running so fast <>that he blew a guys papers of his clipboard <>and thats when he entered school.<> in summary I think <>that the boy was late for school <>(be)cause when he entered school <>there were no children around<> playing like in normal circumstances in school

- **EAF32WN: Adult, Female**

I saw a young boy <> coming out from his house, <>his mother showed up with his lunch box <> probably to give to the boy <>but the boy did not even *buy it*. <>He ran through the streets <>he got chased by a dog <>he continued to run <>and climb on to street tables<>disturbing two men <>who were playing cards <>he continued to run <>and he passed through the playground, <> kicked the ball <>and scored a goal <> he continued to run <>and reached school