

**Text comprehension in multilingual children: Mental representation
and narrative text structure**

by

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August, 2014

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.....

This thesis is dedicated to
my late father, Amos Chimangeni,
who did not live long enough to see his children grow and get educated.

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ABSTRACT

Investigations of children's narrative text structure are necessary because narrative abilities are linked to literacy development and academic achievement (Dickinson & Tabors, 2001). Information contained in a narrative may reflect a child's use of decontextualised, literate language features (Curenton & Justice, 2004). Moreover, storytelling may lead to higher-order thinking including causal reasoning because children not only recall events from text or film but also generate inferences therefrom. Investigations that consider children's narrative text structure are vital in multicultural and multi-linguistic societies "in order to not only preserve cultural and linguistic diversity, but also to support students who find themselves in educational environments in which their cultural and linguistic practices are misaligned with the language(s) of teaching and learning" (Tappe & Hara, 2013, p. 299).

This study set out to examine the effects of language and medium of presentation on the narrative text structure in the [re]tellings of multilingual children through the use of the Narrative Scoring Scheme (NSS) (Heilmann et al., 2010a, 2010b). This study also aimed to investigate whether the [re]tellings by children with Chichewa as their primary language (L1) and English as their language of teaching and learning conform to the NSS, in other words, whether their [re]tellings conform to canonical scoring schemas that are widely used as diagnostic tools to measure the narrative competence of children – irrespective of the children's primary language(s). The participants in this study numbered 127 children (64 female, 63 male) whose age range was 10 to 12 years (44 10-year-olds, 40 11-year-olds and 43 12-year-olds).

The results have revealed that the two languages themselves (Chichewa and English) that were used in story production and the medium of the stimulus presentation do not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children's [re]tellings. The children obtained low mean scores for certain elements (i.e. elements 1 and 3) and high mean scores for other elements (i.e. elements 2 and 7) irrespective of the language or medium of presentation or the school type. Importantly, the results have demonstrated that the [re]tellings by children with a Southern African primary language (Chichewa) do not conform to the Narrative Scoring Scheme (that is, the canonical scoring schemas). The results reveal that the children seem to possess a story

grammar (i.e. a Southern African story grammar) that has strong leanings towards elements that are associated with Southern African folktales. The Southern African story grammar appears to be different from Stein and Glenn's (1979) story grammar and other versions of story grammar that researchers developed from Stein and Glenn's (1979) story grammar (see Anderson & Evans, 1996).

Two main arguments have been made in this study. The first argument is that the 'universality' of the canonical narrative text structure may not be valid because the children's [re]tellings seem to have been significantly influenced by elements from Southern African folktales. In the consequence the children demonstrated limited performance in some of the elements associated with the canonical scoring schemas. The second argument is that the canonical scoring schemas for narrative text structure available in the literature may not be appropriate when analysing stories narrated by children with a Southern African language as their primary language.

This study recommends that further research be done to investigate narrative skills of Southern African children in order to explore the Southern African story grammar proposal in greater depth. Additionally, it recommends that further research be conducted in languages which have been under-represented in or absent from text comprehension research. Existing research has not concentrated enough on macrostructural differences between texts produced in different languages; more research is therefore required to assess language- and culture-specific narrative text structure elements.

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Introduction

What makes a story “good”? How do researchers and educators tell that a story follows a “good” structure? Many researchers and educators use an underlying narrative text structure referred to as a ‘canonical’ narrative text structure (Stein & Glenn 1979 and permutations thereof) in order to evaluate the quality of stories narrated by children. They further employ the concept of a ‘canonical’ narrative text structure “to both teach narrative structure to children as well as to assess children’s narrative skills in educational contexts” (Tappe & Hara, 2013, p. 298). The ‘canonical’ narrative text structure continues to be widely used in different areas, countries and continents to assess narrative comprehension in school children (Tappe & Hara, 2013, p. 298). According to the ‘canonical’ narrative text structure, a story that is linguistically complete contains seven (Stein & Glenn, 1979) or five (Anderson & Evans, 1996) logically sequenced story grammar elements (see Chapter 1, section 1.9.7.4, for more details).

Not all children narrate stories that conform to the ‘canonical’ narrative text structure. In particular children in multicultural and multi-linguistic societies who are not exposed to the canonical narrative text structure during socialisation narrate stories that “may exhibit somewhat “non-canonical” text structure elements” (Tappe & Hara, 2013, p. 298). One aim of the current thesis is to demonstrate that researchers and educators need to take into consideration children’s ‘narrative socialisation’ when assessing children’s narrative comprehension. Furthermore, I would like to argue that teaching and assessment of narrative text structure should take into account “[...] linguistic descriptions of ethnolinguistic discourse patterns (contrastive rhetoric)” (Barnitz, 1986, p. 95).

There is a paucity of information documented in literature regarding the significance of the elements of narrative text structures in multicultural and multi-linguistic societies. Even though stories narrated by different groups of people may contain a number of supposedly universal story features, there is evidence from cross-linguistic research that stories narrated by people with different languages and cultures reflect language-specific rhetorical styles that are strikingly different. Findings from cross-linguistic research especially uncover differences pertaining to lexicalisation patterns and narrative text structure as well as differences in cultural narrative practices (Slobin, 2004, p. 219, 222). These differences, according to Tappe and Hara (2013, p.

299), “might jeopardise both intra-national assessments of literacy components across different language groups as well as international comparisons of such skills with regard to diverging cultural narrative practices”. These differences may consequently lead to challenges when comparing narrative comprehension across different populations. Additionally, a narrative measurement that is valid within one group of people may not be valid for an alternative one.

Against the background of the challenges mentioned in the paragraph above, it seems to be crucial to investigate narrative text structure of stories narrated by children in multicultural and multi-linguistic societies. Investigations of this nature are vital in multicultural and multi-linguistic societies “in order to not only preserve cultural and linguistic diversity, but also to support students who find themselves in educational environments in which their cultural and linguistic practices are misaligned with the language(s) of teaching and learning” (Tappe & Hara, 2013, p. 299). Furthermore, it is important for students to be aware of underlying story structures because narrative abilities are linked to literacy development and academic achievement (Dickinson & Tabors, 2001). John, Lui and Tannock (2003) consider story [re]telling to be a vital part of academic success as it improves learners’ skills in organising information. Besides, some subjects in schools require learners to restructure information in a holistic fashion. Learners with story [re]telling skills, therefore, perform such tasks with great ease (Linebarger & Piotrowski, 2009). Additionally, story [re]telling abilities are necessary for learning the more advanced forms of thought and writing (McEwan & Egan, 1995).

Information contained in a narrative may reflect a child’s use of decontextualised, literate language features (Curenton & Justice, 2004). Children may narrate stories that contain literate language features such as adverbs, elaborated noun phrases (e.g. “the little mole in the bottle with different sea animals surrounding him”), metacognitive verbs (e.g. “think” or “know”) and metalinguistic verbs (e.g. “say” or “talk”). Their [re]tellings may also reveal whether children are able to use more complex linguistic features such as different types of cohesive devices which are: subordinating conjunctions, coordinating conjunctions and referential expressions.

Narratives are fundamental to human experience (Madej, 2003). Madej states that a narrative is the primary form of communication through which human experience is made meaningful. Besides, Madej declares that human participation is central in narratives as they contain dialogues between people, cultures and different eras. There is evidence that story [re]telling

significantly improves children's story comprehension, remembering of story information, their sense of story structure, and oral language complexity (Gambrell, Koskinen & Kapinus, 1991; Morrow, 1985). In addition, exposure to narratives has been reported to contribute to literacy skills and later school success (Linebarger & Piotrowski, 2009).

An additional benefit of story [re]telling is that it may lead to higher-order thinking including causal reasoning because children not only recall events from text or film but also generate inferences. Above all, when [re]telling a story they express causal and inferential relationships among events in a narrative (Lahey & Bloom, 1994). Regarding causal relationships, children describe characters' intentions and their mental states (Norbury & Bishop, 2003). Norbury and Bishop (2003, p. 289) state that during a [re]telling, a child may make references to character's mental and emotional states and behaviours ('the boy was crying' and 'the dog was naughty') and may also describe characters by including why a character behaves in a certain manner ('the dog fell down because he was a naughty dog'). Children are reported to include causal connectives in their [re]tellings, a fact that shows children's ability to integrate information in the story to explain an emotion or behaviour (Norbury & Bishop, 2003). For example, 'the boy was cross because the dog broke the jar' or 'he looked in the hole to see if the frog was there' (Norbury & Bishop, 2003, p. 289). In this way, it can be said that children not only describe story events in a temporal sequence but also make comments that can be used to help explain the causes and consequences of such events (Norbury & Bishop, 2003). Children's narratives can therefore be characterized as consisting of causal and inferential relationships and these relationships are worth investigating.

The focus of studies on narrative development has been applied to an understanding of how monolingual children acquire narrative skills. Such studies have examined, for instance, children's abilities to recount events derived from different kinds of stimulus material like e.g. picture books, silent films/movies or aural¹ stories. However, few studies with similar aims have been conducted on bilingual/multilingual children (notable exceptions are, however, Fiestas & Peña, 2004; Gutiérrez-Clellen, 2002; Montanari, 2004; Severing & Verhoeven, 2001). In particular there is a general paucity of investigations into language abilities in children with

¹ The word "aural" means the sense of hearing or perceiving something (Hornby, 1995).

African language/African languages as their primary language(s). It is therefore deemed important to investigate multilingual children's development of narrative skills in each of their languages as their competence and storytelling skills in their first language (L1) and second language (L2) might differ considerably.

The main aim of this study is to examine the effects of language (L1 versus L2) and the medium of stimulus presentation (picture book, film, aural presentation) on the narrative text structure in the [re]tellings of multilingual children² through the use of a single narrative assessment measure, i.e. the Narrative Scoring Scheme (NSS) (Heilmann, Miller & Nockerts, 2010a; Heilmann, Miller, Nockerts & Dunaway, 2010b). The study also aims to investigate whether the [re]tellings by multilingual Chichewa/English speaking children with English as their language of teaching and learning conform to the NSS developed from the canonical scoring schemas. In particular, this study aims to answer the following three research questions:

1. Does language have an effect on narrative text structure in the [re]tellings of multilingual children with Chichewa as their L1 and English their L2? In other words, do stories narrated in Chichewa differ from stories narrated in English?
2. Does the medium of the stimulus presentation (picture book, film, aural presentation) influence the children's narrative text structure?
3. Do the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning conform to canonical scoring schemas – here represented by the NSS (Heilmann et al., 2010a, 2010b) which was developed from the canonical scoring schemas)?

The study predicts that:

1. For [re]tellings from film:
When telling stories in either English or Chichewa elicited after viewing a film, both groups of children (i.e. the Children attending the private school Kapita and the children

² The children that I investigated are all multilingual but they have two dominant languages: Chichewa and English. This is in accordance with information from the parental questionnaire (see Appendix 19, Tables 5 to 11 for more details about other languages spoken by the children). I call their first dominant language, Chichewa, their L1 and their second dominant language, English, their L2.

attending the public school Mphungu) would perform well due to the *visual superiority effect hypothesis* (Rolandelli, 1989) (see section 3.6.2 in Chapter 3 for more details). However, the *academic language advantage* (Silburn, Nutton, McKenzie & Landrigan, 2011, p. 47) would prevail in the [re]tellings produced in English from film, as the medium of instruction at all levels in private schools is English and children attending a private school may have more storytelling and retelling experiences in English.

It is also predicted that in [re]tellings produced in Chichewa from film the *mother tongue advantage* (Benson, 2004, pp. 12-13) would prevail, as the medium of instruction from Grade 1 to Grade 4 in public schools is Chichewa and children attending a public school may consequently have more storytelling and retelling experiences in Chichewa.

2. For [re]tellings from aural versions of the film:

When [re]telling stories in English derived from the aural version of the film, children attending a private school would perform better than children attending a public school due to the *academic language advantage* (Silburn, Nutton, McKenzie & Landrigan, 2011, p. 47). In contrast, when [re]telling stories in Chichewa from the aural version of the film, children attending a public school would perform better than children attending a private school due to the *mother tongue advantage* (Benson, 2004, pp. 12-13).

3. Narratives produced by children with Chichewa as their L1 and with English as their language of teaching and learning will not conform to the NSS (Heilmann et al., 2010a, 2010b). We rather expect that – irrespective of the language in which the children produce their [re]tellings – the [re]tellings will be influenced by elements from African folktales.

This thesis is divided into six chapters. The first chapter discusses the theoretical foundation of the investigation. After clarifying the difference between “understanding” and “comprehension, this chapter explores the relationship between coherence and comprehension by taking a closer look at bottom-up and top-down processes that are involved in text comprehension. Essential to this chapter are two approaches to text comprehension: the Construction-Integration Model (CI model) (Kintsch, 2004; Kintsch & van Dijk, 1978) and the Schema Theory (Mandler, 1984; Mandler & Johnson, 1977; Rumelhart, 1977, 1981; Rumelhart & Ortony, 1977). Both approaches focus on how background knowledge (schema) is used in text comprehension.

However, the way background knowledge is used in the CI model is different from the way it is used in schema theory. I conclude this chapter by stating that the different forms of schemas (frames, scripts, event chains, story grammar and structures of expectations) that individuals are exposed to may lead them to organise and retell stories in significantly different ways.

The main focus in Chapter 2 is on studies that have examined children's abilities to relate events from various types of stimulus material; in particular, picture books, silent films/movies and aural stories as these are the types of stimulus material that I used to collect the data presented in this thesis. Different narrative measurements researchers have used to analyse stories narrated by children are explained in this chapter. I also review studies that have used story grammar analysis and other measures for the assessment of narrative skills. Thereafter, this chapter provides an overview of results obtained from recalls and self-generated stories. The main emphasis in this chapter is on studies that have used one of the three media of stimulus presentation, namely, aural, picture book and audio-visual or visual only because my study used similar modes of presentation. This chapter compares findings from studies that used different media of story presentation. In the final section of this chapter, the focus is on monolingual and bilingual children's ability to tell stories that are coherent and cohesive. I especially investigate monolingual and bilingual children's developmental trends in their use of cohesive ties and referential expressions.

Chapter 3 focuses on the data collection procedures that were used in order to answer the research questions informing this research. In this chapter, I explain the two research designs that guided this study, namely cross-sectional and cross-linguistic research designs. I also provide an overview of the pilot study that I conducted. Thereafter, I describe the setting, the participants of the main study, and the procedure that was used in data collection. I further provide details about how children narrated stories in response to three different modes of stimulus presentation (picture book, film and aural). In addition, this chapter informs the reader about the entire process of data processing and analysis. It explains how data was transcribed and analysed. Since data was analysed using a scoring schema that has been developed for stories narrated in English, and that this provided a challenge in assessing multilingual Malawian children, it is recommended in this section that alternative schemas be developed for stories narrated in African languages. The final section of the chapter describes the quantitative and qualitative

aspects of the data analysis. In conclusion, I explain how the anonymity of the participants was protected in compliance with the ethical clearance guidelines of the University of KwaZulu-Natal.

In Chapter 4, I present findings from the main corpus of my data, collected according to the methods explained in Chapter 3. The findings are presented alongside some of the findings obtained from the questionnaire filled in by my participants' parents. The presentation and discussion of results is structured around the three research questions of the study. The first section of the chapter presents findings in relation to the effects of language on the narrative text structure in the [re]tellings of multilingual children with Chichewa as their L1 and English their L2. In other words, the focus is on whether the narrative text structure for stories narrated in Chichewa differs from that of stories narrated in English. The second section of this chapter presents findings pertaining to the influence of the medium of the stimulus presentation (picture book, film, aural presentation) on the narrative text structure. In particular, this section presents findings in relation to the narrative text structure of self-generated stories and recalls. The last section of the chapter assesses whether or not the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning conform to Heilmann et al.'s (2010a, 2010b) Narrative Scoring Scheme (that is, the canonical scoring schemas).

Chapter 5 focuses on a discussion of the findings that are presented in Chapter 4. The discussion is shaped by the following subjects developed in line with the findings: the influence of the language of presentation on the narration of a story, the influence of the medium of the stimulus presentation on the narration of a story, the influence of the stimulus material on the narration of a story, the relationship between cultural familiarity and storytelling, knowledge of vocabulary and language proficiency and their significance to storytelling, the relationship between storytelling background and socioeconomic background in the development of a story schema and children's [re]tellings in relation to the canonical narrative text structure.

Finally, Chapter 6 presents the conclusion to this thesis. It deliberates on the implications of the findings, the limitations of the study and provides recommendations pertaining to areas for future research. In particular, the chapter discusses two fundamental implications of the research: the theoretical and practical educational implications.

Chapter 1: Theories of Text Comprehension

1.1 Introduction

I begin the first section of this chapter by discussing terms that are the backbone of this study: “understanding” and “comprehension”. It is vital at this early stage to know what it means to understand a text or comprehend a text. A discussion of these terms is relevant in this thesis because for children to recall a film or text they need to understand what the text or film is about. In particular, they need to comprehend the film or text in order to summarise it, answer set questions on it and, among other things, also need to fill in gaps created by information not provided in the text. In this chapter, I provide the theoretical foundation of this thesis through a discussion of two approaches to text comprehension, which are the Construction-Integration Model (Kintsch, 2004; Kintsch & van Dijk, 1978) and the Schema Theory (Mandler, 1984; Mandler & Johnson, 1977; Rumelhart, 1977, 1981; Rumelhart & Ortony, 1977). But before commencing the discussion of these approaches, I firstly define the two terms “understanding” and “comprehension”. I also discuss the relationship between coherence and comprehension. Then I discuss three stages that are involved in the comprehension process and other comprehension processes such as bottom-up and top-down processes. Thereafter, I discuss briefly why the two approaches (the Construction-Integration Model and the Schema Theory) have been singled out in this thesis. This chapter principally emphasises the role of background knowledge in text comprehension.

1.2 The concept of “understanding” and “comprehension”

The term “understanding” (in the context of understanding a film or text) is difficult to define. Johnson-Laird (1983, p. 2) states that it is easier to provide the criteria for what constitutes understanding than to define the term. For instance, he explains that understanding depends on knowledge and belief. He claims that when you are understanding something, you have a working model of a phenomenon in your mind – he calls this the psychological core of understanding. Understanding a term particularly means that you are able to provide an explanation for it. Furthermore, in accordance with Johnson-Laird’s thinking, understanding an idea means that you have a mental representation of the idea that you are trying to understand. Because of the difficulty in defining the term “understanding”, Kintsch (2004, p. 1270) explains the term in terms of what it is not.

[...] It is not necessary that we repeat the text verbatim, but we ought to be able to come up with the gist; it is not necessary that we think of every implication of what we have read, but we do not understand if we miss the most obvious ones; it is not necessary that we answer every question that could be asked, but we cannot miss them all.

Different explanations of the term “understanding” arise due to the different purposes of reading tasks that teachers or researchers assign to their students or participants. For instance, in this study to say that multilingual children have understood a film or text may mean that they are able to recall the film or text and answer comprehension questions. They may not be able to recall everything nor answer all comprehension questions correctly but they should at least be able to recall part of the film or text and answer some questions about it. However, how much they should recall and how many questions they should be able to answer for one to say that the text or film has been understood are not straightforward questions, because the way one recalls a film or text depends on background knowledge and comprehension processes involved, among other factors. As mentioned at the beginning of the chapter, the role of background knowledge and the processes involved in text comprehension form the backbone of this chapter and are explained in detail in the sections that follow.

The term “comprehension” is also difficult to define because it is used in different ways by different researchers and educators. Some researchers define it as the ability to remember information contained in a text (van den Broek et al., 2005). Others define it as the ability to apply knowledge conveyed in the text to a concrete situation (Pearson & Hamm, 2005). Kintsch (2004), on the other hand, uses a more technical approach to understand the term. He considers comprehension as a paradigm for cognition because comprehension involves not only perception but also analytic thought. Regarding the role of perception in comprehension, an individual has to “make sense of a wide variety of sensory inputs involving several modalities” (Kintsch, 2004, p. 1270). In order to do this, the perceiver may be required to work through puzzles using different methods. Analytic thought, on the other hand, involves solving problems, assuming that there are problems that require solutions. Kintsch (2004, p. 1270) therefore argues that reading comprehension involves two broader processes, perception and analytic thinking. These processes apply equally to listening comprehension because the processes involved in

comprehension of aural³ and written texts are similar according to Anderson (1995, p. 378). These two processes happen automatically. According to Kintsch (2004, p. 1270), “normal reading involves automatic comprehension, as well as conscious problem solving whenever the pieces of the puzzle do not fit together as they should.” A reader or listener is sometimes confronted with text that is easy to understand but at other times he or she comes across text that requires him or her to figure out what he or she is reading. Kintsch’s (2004) theory of text comprehension discussed in this chapter therefore implies that a reader or listener complements normal reading or listening by engaging in two important processes, perception and analytic thinking. For instance, as he or she is reading or listening to a story, he or she may ask himself or herself questions such as “what does this mean?” or “why is this happening?” in order to clarify or deepen his or her understanding. The reader or listener may answer such questions by going back over the text or by moving forward to find more information or by making inferences or recalling what he or she already knows about the story (that is, past experiences and background knowledge). In most cases, past experiences and prior knowledge thus help a reader to come up with answers to such questions quickly. Questioning strategies consequently lead to analytic thinking especially when the reader or listener monitors whether or not he or she understands what he or she is reading or listening to by asking himself or herself further questions such as “do I understand what I am reading or listening to?” or “is this information true?”

The explanation above has shown that the term “understanding” may be approached in terms of the outcome or result of a comprehension task while the term “comprehension” may be defined in terms of the processes that are involved in comprehension such as perception, analytic thinking, construction of mental representations and inference generation. Both explanations are relevant in this thesis. Many researchers and educators agree that comprehension involves three major processes; interpretation of information in a text or film, the use of prior knowledge when interpreting information, and the construction of a coherent mental representation of what the text or film is about (Gernsbacher, 1990; Graesser & Clark, 1985; Kendeou, van den Broek, White & Lynch, 2007; Kintsch & Kintsch, 2005; Pearson & Hamm, 2005; van den Broek et al., 2005). This representation is the foundation upon which individuals are able to perform story

³ Comprehension of aural text means understanding text that is perceived by the ear (refer to the definition of the word “aural” provided in the introduction).

[re]tellings and answer questions based on what they have viewed, read or heard. The coherent mental representation of a text is also known as the “situation model”. An alternative concept to “situation model” is the concept “mental model” which refers to the coherent mental representation of a text (Johnson-Laird, 1983, p. 10). The concept of a mental model is often used to describe the outcome of a comprehension (Glenberg & Langston, 1992; Zwaan & Radvansky, 1998) or learning process in educational psychology (Johnson-Laird, 1983; Kintsch, 2004; also see section 1.8.1.3 for a detailed discussion of the “situation model”).

1.3 Coherence and comprehension

The term “coherence” is described as “the semantic, logical, or cognitive connections that underlie a text” (Bednarek, 2005, p. 692). A paragraph that is coherent has ideas that are arranged in a logical manner. For instance, if a paragraph is about how to bake a cake, it does not start by talking about the last steps involved in the baking process, but rather explains the steps involved from the beginning to the end. Furthermore, a paragraph that is coherent is characterized by the way ideas “hang together” without any gaps in between (Harabagiu, 1999, p. 249). It also contains ideas that relate to one another. A coherent paragraph is therefore characterized by “unity” (Harabagiu, 1999, p. 249). For unity to be maintained in a paragraph or text, every sentence in the paragraph or every paragraph in the text should be closely related to the main idea or topic. A well-constructed paragraph does not include sentences that do not relate to the paragraph’s main idea (Harabagiu, 1999, p. 249).

Cohesion, on the other hand, is what aids a paragraph or text to establish coherence. According to Bednarek (2005, p. 692), cohesion is a “property of texts and refers to the linguistic means that provide ‘texture’ (i.e., link the sentences of a text)”. Halliday and Hasan (1976, p. 5) explain that cohesion is expressed through grammar and vocabulary. Similarly, van Dijk and Kintsch (1983, p. 149) state that the term “cohesion” is used to “account for the more specific grammatical manifestations of underlying semantic coherence.”

Bednarek (2005, p. 692) summarises the differences between coherence and cohesion as follows:

[...] coherence is not a text-inherent property; it concerns the logical relations in a given text which are established by hearers. In other words, it refers to the extent to which hearers find that this text ‘holds together’ and constitutes a unified

whole. Cohesion, on the other hand, is a text-inherent property; it concerns the explicit textual means by which potential logical connections are signaled. In other words, it refers to the way in which sentences are connected in a text by lexical and structural means.

It is the hearers who establish coherence and not the texts even though the cohesive means or ties of texts play an important role in helping hearers to establish coherence. For instance, coherence in a text may be achieved through the use of a subordinate connection. This level of coherence is achieved when complex sentences with embedded relative clauses are used in a text. This is illustrated using sentences 1 and 2 below. Sentences 1 and 2 are complex sentences with embedded clauses “after they had finished writing the test” and “that we had been looking forward to watch”.

1. After they had finished writing the test, they watched their favorite film.
2. This is the film that we had been looking forward to watch.

Coherence may also be achieved through the use of a coordinated connection. This is what Halliday and Hasan (1976, p. 226) refer to as conjunction. A conjunction helps hearers to establish coherence because it relates successive phrases or clauses to each other. Sentences 3, 4 and 5 make use of conjunctions “because”, “and” and “yet” respectively to relate phrases or clauses to each other.

3. I failed to attend the meeting because I was writing examinations.
4. He proposed to Mary and married her three months afterwards.
5. He got the highest marks yet his attendance of classes was poor.

Halliday and Hasan (1976, pp. 242-243) discuss four different types of conjunctions, namely, additive (for example, “and”, “and also”), adversative (for example, “yet” and “though”), causal (for example, “as a result”, “hence”, “therefore”) and temporal (for example, “then”, “next”, “after that”).

Furthermore, coherence may also be achieved through the use of references. References, are explained by Halliday and Hassan (1976, p. 31) in terms of linguistic items that cannot be

interpreted semantically in their own right but are interpreted by referring them to something else. According to Halliday and Hasan, there are different types of references, personal, demonstrative and comparative. Personal reference refers to personal pronouns that refer to previously identified nouns, for example, “he” for “John”, “she” for “Mary” and “it” for “cat”. Demonstrative pronouns refer to words such as “this”, “that”, “here” and “there” which are used to show location or proximity of something. While comparative reference is the type of reference that is made to signify identity or similarity, such as, “same”, “identical”, “equal”, “similar”. These references are demonstrated in sentences 6, 7, and 8 below.

6. John came late today because he had to visit his mother at the hospital.
7. This does not belong here.
8. This explanation is similar to the one given in the book.

In sentence 6, “he” is an example of a personal reference and is referring to “John”. In sentence 7, “this” and “here” are examples of demonstrative references referring to the location of some entity. In sentence 8, “similar” is a comparative reference as it compares two explanations.

Halliday and Hasan’s (1976) theory of cohesion has been criticized on the basis that it does not take into consideration the role played by prior background knowledge, also known as schema, (different types of knowledge are explained in section 1.4 and schema theory is discussed in detail in section 1.9) in comprehension (Carrell, 1982). Carrell argues that schema theory:

[...] maintains that processing a text is an interactive process between the text and the prior background knowledge or memory schemata of the listener or reader. In the schema-theoretical view of text processing, what is important is not only the text, its structure and content, but what the reader or listener does with the text. Unlike the textual analysis approaches—story grammar, text grammar, propositional analysis, cohesion theory, etc., which operate on text as though it occurred in a vacuum—schema theory takes the text processors into account (1982, p. 482).

The argument made by Carrell (1982) is valid because some texts may not be understood if a comprehender does not have prior background knowledge for it. For instance, hearers would

only be able to understand what “this”, “here” and “similar” are referring to in sentences 7 and 8 if they have prior background knowledge, that is, if they know the context in which the sentences were uttered. In particular, hearers would only understand sentence 7 if they were in the same location as the utterer.

Further criticisms of Halliday and Hasan’s (1976) theory of cohesion have been raised by Morgan and Sellner (1980). Part of their criticism is based on the example Halliday and Hasan use to illustrate the concept of coherence: “Wash and core six cooking apples. Put them into a fireproof dish” (1976, p. 2). According to Halliday and Hasan, it is a clear and objective fact that “them” in this example refers to the “six cooking apples”. They conclude that “it is clear that *them* in the second sentence refers back to (is ANAPHORIC to) the *six cooking apples* in the first sentence” (Halliday & Hasan, 1976, p. 2). However, Morgan and Sellner argue that Halliday and Hasan are mistaken when they state that it is clear that “them” refers to the “six cooking apples” because it is possible that “them” may refer to other things. Morgan and Sellner further argue that what determines what “them” refers to is our prior background knowledge of cooking. Their argument is summarised in the following quotation:

[w]hat forces the conclusion that “them”, in fact, is intended to refer to the apples and not, say, to the author’s children? It is not knowledge of language that supplies this conclusion. It is our knowledge of cooking and of the author’s purpose, our ability to reason, and the assumption that the recipe is coherent (Morgan & Sellner, 1980, p. 180).

Despite the criticisms of Halliday and Hasan’s (1976) theory of cohesion, cohesive ties play an important role in comprehension because hearers establish a coherent mental representation of text through such means or ties. Cohesive means or ties are therefore relevant in this study. Hearers may not be able to understand text without the help of such connections. In this way, coherence relates to comprehension. Furthermore, what has been discussed above concerning coherence and cohesion is relevant because the scoring scheme (the Narrative Scoring Scheme, see Chapter 3 for more details) which is used in this study for scoring [re]tellings contains elements such as “referencing” and “cohesion”. Regarding referencing, participants get a full score of 5 if they provide necessary antecedents to pronouns and if references are clear throughout their [re]tellings. Concerning cohesion, participants get a full score of 5 if events

follow a logical order and if smooth transitions (that is, cohesive ties) are provided between events.

In the next section, I focus on some of the processes involved in language comprehension by looking at the three stages that Anderson (1995) has suggested are essential for a comprehension process to be complete. I also explain the role played by knowledge in these stages of the comprehension process. In so doing, I introduce different types of knowledge that are also relevant in the discussion of the two approaches that provide the theoretical framework of this thesis.

1.4 Three stages involved in the comprehension process

The processes that are involved in language comprehension, according to Anderson (1995, p. 378) are not only active but also complex. Anderson came up with three stages that he suggests are essential for a comprehension process to be complete (Anderson 1995, pp. 378-404). The stages are “perceptual processing”, “parsing” and “utilization”. These stages take into account some of the processes explained in section 1.2 especially perception, the use of prior knowledge and the construction of mental representations. Anderson (1995, p. 378) then proposes that the processes involved in comprehension of aural and written texts are similar and that the given stages apply to both listening and reading comprehension. He also states that the processes overlap, in other words, they are not orderly as presented in this section. This is so because a listener may sometimes find himself making inferences in the first part of a sentence while perceiving a latter part (Anderson, 1995, p. 379). The processes are therefore known to be recursive (O’Malley & Chamot, 1990, p. 34).

In the first stage, “perceptual processing”, an individual focuses his attention on the aural or written text and in doing so portions of the text are retained in short-term memory (Anderson, 1995, pp. 378-379). Because of the limitations of short-term memory, the portions of the text are not retained for longer than a few seconds. O’Malley and Chamot (1990, p. 34) explain that while the text is still present in short-term memory, some initial analyses of the language code may start and some of the text may be converted to meaningful representations by encoding processes. At this point in time, attention is focused on aspects of the task or the context that will be useful in comprehension. O’Malley and Chamot (1990, p. 34) state that “in listening, these aspects might be pauses and acoustic emphases that provide clues to segmentation”. It is

therefore assumed that in this study participants also pay attention to such aspects to come up with meaningful representations of the aural text.

In the next stage of the comprehension process, “parsing”, the listener uses words and phrases to construct meaningful mental representations of text. In order to do this, the listener uses background or prior knowledge. This is the type of knowledge that Anderson has referred to as declarative knowledge, “the knowledge about facts and things” (1995, p. 236). According to Richards (1983, p. 220), listeners in a comprehension process make use of two types of declarative knowledge to identify the meaning of propositions: real world and linguistic knowledge. Propositions, are defined by Kintsch (2004, p. 1273) as the smallest idea units that combine more than one concept in a schematic form (a discussion of propositions is found in section 1.8.1.2). Real world knowledge⁴ includes knowledge of facts, experiences, and impressions about a topic (O’Malley & Chamot, 1990, p. 36). This knowledge is essential as it helps to elaborate on new information and give it greater meaning. A second language learner tends to make use of such knowledge in order to compensate for, among other things, his or her inadequate vocabulary and lack of proficiency in the language he or she is acquiring. It is assumed that participants in this study who are second language learners of English rely on such knowledge when comprehending stories. Linguistic knowledge on the other hand is the knowledge of the syntax of the target language. According to Richards (1983, p. 220), “syntactic knowledge enables the listener to chunk incoming discourse into segments or constituents”. If a second language learner does not have such knowledge, then listening comprehension becomes a challenge.

O’Malley and Chamot (1990, p. 36) discuss two special types of declarative knowledge: “scripts” and “story grammars” (scripts, story grammars and other forms of declarative knowledge are discussed in detail in section 1.9.7). They describe scripts as “special schemata consisting of situation-specific knowledge about the goals, participants, and procedures in real-life situations”. They define story grammars as “schemata representing the discourse organisation of fables, stories, and narratives” (O’Malley & Chamot, 1990, p. 36). These

⁴ Other researchers refer to this type of knowledge as “content schema” (see Carrell and her colleagues). Content schema is the reader’s background knowledge or world knowledge that provides readers with a foundation or a basis for comparison (Carrell, 1983; Carrell & Eisterhold, 1983; Carrell, Pharis & Liberto, 1989). It is the background knowledge of the content in a text.

schemata enhance the comprehension process in the sense that the listener is able to make predictions about what he or she will hear next. The listener is also able to predict conclusions and to infer meanings of portions of text that have not been made explicit. Listeners who make use of these two special types of knowledge to anticipate the meaning of text are using what is known as “top-down” processing (O’Malley & Chamot, 1990, p. 36). Top-down processing is the form of comprehension that begins with listeners’ contribution from higher levels of processing such as making predictions and inferences to lower levels of processing such as word recognition and word order (Carrell, 1983; Tsui & Fullilove, 1998, a detailed discussion of top-down processing is given in section 1.6). According to O’Malley and Chamot (1990, p. 36), linguistic knowledge is also known to be stored as schemata or propositions “but the information stored consists of a lexicon of word meanings and a body of grammatical or syntactic rules”. Listeners who focus on analysing every individual word for its meaning or on the underlying syntactic characteristics and then come up with meaningful representations in the form of propositions are using the type of processing which is known as “bottom-up” (a detailed discussion of bottom-up processing is given in section 1.5).

In the last stage of the comprehension process, “utilization”, the listener relates a mental representation of the text to declarative knowledge in his long-term memory. As already alluded to above, declarative knowledge is stored in terms of either propositions or schemata in long-term memory. Utilization has been described as the key to comprehension and the basic determinant that facilitates it (O’Malley & Chamot, 1990, p. 350). In order to understand what an individual is saying, the interplay between what is already known and what is new makes this possible. Some of the skills utilized by listeners in the three stages of the comprehension process are summarised in Table 1.1 below. Note that there are some skills that are applicable to the other stages as well, for instance, listeners may also make use of skills such as reconstructing meaning using words heard and visualising scenes, objects, events being described at the utilization stage.

Table 1.1 Some of the skills utilized by listeners in the three stages of the comprehension process (Goh, 2000, p. 72)

Perception	Parsing	Utilization
Listening to how new vocabulary items are pronounced	Inferring missing or unfamiliar words using contexts, co-text and prior knowledge	Relating limited interpretation to a wider social/linguistic context
Paying attention to tones and pauses	Predicting unfinished utterances using contexts, co-text and prior knowledge	Relating one part of the text to another
Paying attention to visuals and body language	Reconstructing meaning using words heard	Evaluating comprehension using contexts, prior knowledge
Establishing purpose for listening	Visualising scenes, objects, events etc. being described	Using prior knowledge to elaborate on and complete interpretation

Even though Anderson's (1995) three stages of the comprehension process have been developed based on first language (L1) comprehension, they are considered to be relevant to second language (L2) comprehension (Goh, 2000, p. 57). The reason for this, according to Goh, is that L1 and L2 comprehension share many similarities. For instance, the cognitive processes involved in L1 comprehension also apply to L2 comprehension. However, language learners may encounter several linguistic and sociolinguistic challenges (Hasan, 2000, pp. 139-140). For instance, a second language learner who does not understand individual words or phrases used in a text may have problems in understanding the whole text (Hasan, 2000). In addition, a second language learner may encounter sociolinguistic challenges such as motivation, attitude and socialisation (Bley-Vroman, 1990, p. 26).

Anderson's (1995) three-stage model of comprehension has not received much attention from listening comprehension theorists (Graham, 2006, p. 168). However, there are some studies that provide evidence in support of the three stages that Anderson proposed (Goh, 2000; Graham, 2006; O'Malley, Chamot & Küpper, 1989). For instance, Goh's (2000, p. 59) study found that second language listeners experienced some of the following problems related to the three stages of comprehension: not recognizing words they know and neglecting the next part when thinking about meaning (perception stage), quickly forgetting what is heard and being unable to form a

mental representation from words heard (parsing stage) and, understanding words but not the intended message and being confused about the key ideas in the message (utilization stage). Goh's (2000, p. 73) study offers some insights on how learners with these problems may be assisted such as by educators needing to "set aside lesson time for discussion and reports about listening problems and useful strategies" (refer to Goh, 2000, for further details).

In the next two sections, I discuss bottom-up and top-down processes of comprehension. These are the processes that are utilized by listeners at the parsing stage of the comprehension process according to Anderson's (1995) three-stage model of language comprehension.

1.5 Bottom-up process

Bottom-up processing begins with printed symbols (Gough, 1976). A reader derives meaning from individual words, phrases, clauses, sentences, paragraphs and entire text (Meurer, 2009). Bottom-up processing is therefore text-based and it moves from specific to general. In listening comprehension, this entails that a listener has to pay attention to every detail of spoken text (Peterson, 2001). He or she has to identify words and ultimately sentences. The listener therefore firstly identifies in a text the smallest units of language (for example, phonemes) that are chained together to form the next highest unit (for example, syllables). These units are in turn bound together to form the next highest unit (words, phrases, then sentences, etc.). This process continues until all the words in an utterance are processed. Brown (2001) confirms this by stating that the listener grasps the message in a text through a sequence that goes from sounds to words to grammatical relations to lexical meaning. Bottom-up processes in reading comprehension are illustrated by Davies (1995, p. 58) in the following basic sequential pattern:

- a. Eyes look
- b. Letters identified and 'sounded out'
- c. Words recognized
- d. Words allocated to grammatical class and sentence structure
- e. Sentences give meaning
- f. Meaning leads to thinking

According to Carrell (1983, p. 82), “[b]ottom-up processing is evoked by the incoming data; the features of the data enter the system through the best-fitting bottom level or specific schemata. As these schemata converge into higher level, more general schemata, these too are activated”. Because of this, bottom-up processing is called data-driven (Carrell, 1983). In bottom-up processing, readers or listeners are required to decode the linguistic input rapidly and accurately and match the input against their expectations in order to arrive at the correct interpretations that are consistent with their expectations (Tsui & Fullilove, 1998). If listeners match linguistic input against their expectations, this implies that higher-level information is used in word recognition in contrast to the direction of the bottom-up model as explained in the paragraph above. The explanation above from Carrell (1983) and Tsui and Fullilove (1998) shows that bottom-up processing in its entirety cannot lead to successful listening or reading comprehension. The bottom-up model has therefore been criticized because of its text-based inherent property. For instance, Coady (1979) and Lynch and Hudson (1991) state that reading or listening comprehension involves more than word perceptions. It involves, as pointed out in section 1.3, knowing the context (that is, prior background knowledge) in which words, phrases, sentences, etc. are uttered.

The bottom-up model has also been criticized because of its inflexible, word by word fashion of processing information (Wang, 1998) which other researchers argue may lead to overloading of short term memory (Sheikh-Ahmad, 1997, p. 45, also refer to Smith, 1973, for further details). Furthermore, Lynch and Hudson (1991) argue that this model entails that readers or listeners process language much slower than they do in reality because the model predicts that they cannot comprehend larger language units. These shortfalls led researchers to develop another model, the top-down model, which emphasises a process of comprehension from higher-level information.

1.6 Top-down process

It has been established in the discussion so far that even though listening comprehension is different from reading comprehension, there is empirical evidence that some of the processing strategies for effective listening and effective reading are similar (Anderson, 1995; Tsui & Fullilove, 1998). In both listening and reading comprehension, listeners or readers need to use their prior knowledge or schema or expectations to interpret text and to make predictions about the information they are about to hear or read.

Top-down processing occurs when the mind makes general predictions on the basis of higher-order, general schemata and then searches the input for confirmation of these predictions (Carrell, 1983; Tsui & Fullilove, 1998). This implies that comprehension begins with listeners' contribution from higher levels of processing such as making predictions and inferences to lower levels of processing such as word recognition and word order. This entails that top-down processing moves from general to specific. The basic sequential pattern of the top-down process in reading comprehension is illustrated by Davies (1995, p. 58) in the following:

- a. Eyes look
- b. Thinking-predictions about meaning
- c. Sample sentence as a whole to check meaning
- d. To check further, look at words
- e. If still uncertain study letters
- f. Back to meaning predictions.

Top-down processing derives from Goodman's (1976, p. 498) view of reading as "a psycholinguistic guessing game, involving an interaction between thought and language". He also viewed the construction of meaning of a text as "a cyclical process of sampling, predicting, testing, and confirming" (Goodman, 1976, p. 498). According to Goodman, a reader does not read every word in the text but samples the text. He or she then makes hypotheses about the next word to be encountered and then samples the text again in order to confirm his or her predictions. The reader continues doing this until he or she reaches the last word in the text. According to Tsui and Fullilove (1998), most researchers argue that this is possible in listening comprehension because of the quantity of incoming information to which a listener is exposed which may not all be processed by the human auditory system. On account of this reason, higher-level cognitive processes therefore regulate the flow of information being processed in listening comprehension. According to Rost (1991) cited in Paran (1996, p. 29), in listening comprehension, "much of the incoming information needs to be sampled rather than accorded attention, and sampling is done on the basis of the listeners' expectations, previous knowledge, and what has already been processed." Top-down processing therefore helps to facilitate the assimilation of prior

knowledge or schema with information that one reads about or hears from a text; hence it helps in establishing an appropriate interpretation of text. According to Tsui and Fullilove (1998, p. 198), “top down processing facilitates the assimilation of concepts and ideas if they are anticipated or consistent with the reader’s conceptual expectations. In addition, this process helps to resolve ambiguities: to select among alternatives, and possible interpretations of the material.”

However, the top-down processing model has been criticized on the basis of the assumptions made by top-down theorists (for instance, Goodman, 1976; Smith, 1973) that skilled readers “utilize context to a greater degree than less skilled readers because they rely less on orthographic cues than the less skilled readers do” (Ryneron, 1999, p. 7). The theorists (for instance, Goodman, 1976; Smith, 1973) assume that skilled readers are able to use context more effectively than less skilled readers to identify the meaning of unknown words. They furthermore assume that skilled readers are “more sensitive to the syntactic and semantic redundancies of text and are able to make more accurate "first guesses" when naming words” (Ryneron, 1999, p. 8). The criticisms have been raised because research literature does not support the idea that skilled readers utilize context to a greater extent than less skilled readers. For instance, results of studies conducted by Stanovich and colleagues (Schwartz & Stanovich, 1981; Stanovich, Cunningham & Feeman, 1984; Stanovich, Nathan, West & Vala-Rossi, 1985) demonstrate that both skilled and less skilled readers make use of contextual information when reading and it is the less skilled readers who rely on contextual information more often than the skilled readers.

Further criticisms of the top-down model have been raised by Carrell and Esterhold (1983) and Eskey (1988). Their criticisms are based on the view that reading or listening comprehension involves both bottom-up and top-down processes. This entails that readers or listeners derive meaning by the interplay of bottom-up and top-down processes (Carrell, 1983; Carrell & Esterhold, 1983; Eskey, 1988; Meurer, 2009). Carrell and colleagues are therefore in agreement with the interactive model of reading that was first proposed by Rumelhart (1977). Carrell’s argument is that through bottom-up processing, the data that are needed for activating schemata become available and it is through top-down processing that these data are sampled by the readers or listeners in order to confirm assumptions and predictions that they had about the text. Regarding these processes, Carrell (1983, p. 82) states that

[b]ottom-up processing ensures that the listener or reader will be sensitive to information that is novel or that does not fit her or his ongoing hypotheses about the content or structure of the text; top-down processing helps the listener or reader to resolve ambiguities or to select between alternative possible interpretations of the incoming data.

Because texts do not provide readers or listeners with every bit of information, it becomes necessary for them to apply top-down processes in order to make texts understandable. The process of reading comprehension has been called an interactive one between the reader or listener's background knowledge of content and structure, and the text itself (Carrell, 1983). A reader or listener cannot interpret text by relying on what is given in the text; he or she needs to relate information in the text to his or her background knowledge in order to successfully comprehend it. Support for interactive processes in reading (which in this case also applies to listening) comes from Horiba (2013, p. 99) who explains that

[r]eading is an intentional act. Readers engage in interactive processing which consists of bottom-up data-driven processing and top-down conceptually driven processing. Successful comprehension of a text requires that readers not only recognize words, analyze sentences to extract propositions, but also encode textual information, together with inferences generated from relevant general knowledge, as a coherent representation of the text in memory.

The interactive processing therefore “overcomes the disadvantages of bottom-up processing and top-down processing to augment comprehension” (Xu, 2008, p. 23). In listening and reading comprehension, a comprehender combines bottom-up and top-down skills. Some of these skills are listed in Table 1.2 below.

Table 1.2 A list of bottom-up and top-down skills (Adapted from Brown (2001) & Peterson (2001))

Bottom-up skills	Top-down skills
<ul style="list-style-type: none"> • discriminating between intonation contours in sentences • discriminating between phonemes • listening for word endings • recognizing syllable patterns • being aware of sentence fillers in informal speech • recognizing words, discriminate between word boundaries • picking out details • differentiating between content and function words by stress pattern • finding the stressed syllable • recognizing words with weak or central vowels • recognizing when syllables or words are dropped • recognizing words when they are linked together in streams of speech • using features of stress, intonation and prominence to help identify important information 	<ul style="list-style-type: none"> • discriminating between emotions • getting the gist • recognizing the topic • using discourse structure to enhance listening strategies • identifying the speaker • evaluating themes • finding the main idea • finding supporting details • making inferences • understanding organising principals of extended speech

In the next section, I explain why the Construction-Integration Model and schema theory provide the theoretical framework in my study. I do this by looking at how both of the approaches recognize the role played by background knowledge in text comprehension. I also look at the relevance of situation models in text as well as in film comprehension. In addition, I explain why the two approaches which are known to be text comprehension approaches apply to comprehension of film as well.

1.7 Relevance of the two approaches

Literature has revealed that background knowledge or schemata is relevant for an understanding of written as well as spoken texts in L1 and L2 comprehension (Carrell, 1983). It has also been established that the more background knowledge a reader has on a given text, the more comprehension occurs. Similarly, other theories such as the Construction-Integration Model (CI Model, Kintsch, 2004; Kintsch & van Dijk, 1978) have acknowledged the role played by background knowledge in text comprehension as explained by Nassaji (2002). The CI Model

however is said to depend too heavily on background knowledge even though the way this knowledge operates in the CI model is different from the way it operates in the schema theory. For instance, the proponents of the CI Model indicate that knowledge is not pre-stored as claimed by schema theorists. The CI model has been well researched according to Nassaji with a focus on L1 reading comprehension. However, Nassaji states that this model has not been recognized in L2 reading or listening comprehension because researchers have not explored its relevance in L2 reading or listening (2002, p. 452). In other words, there is potential that the CI model may also be applicable to L2 reading or listening. The two theories also recognize the role that background knowledge plays in inferencing. Even though this study does not investigate inferences, it is necessary to highlight the relevance of inference generation in comprehension because texts do not present every piece of information. Readers or listeners therefore have to infer missing information from text using different types of knowledge (for instance, “schemas”, “scripts”, etc.). Previous research provides evidence that readers or listeners use background knowledge in order to fill in gaps identified in a text (Keenan, Baillet & Brown, 1984; Kintsch & van Dijk, 1978; van Dijk & Kintsch, 1983). The two theories are therefore relevant because they both recognize the role played by different types of knowledge in inferencing and overall in comprehension.

The Construction-Integration model is relevant because of its focus on the “situation model” as the main level of mental representation. Adults as well as children build situation models for texts and non-text events (Gernsbacher, Varner & Faust, 1990; Magliano, Miller & Zwaan, 2001). This means that the construction of a situation model is applicable to different modalities of representing narrative events, not only texts. In order to create a global mental representation of a situation, adults as well as children apply their world knowledge to make sense of the individual propositions in the stories. Propositions, are defined by Kintsch (2004, p. 1272) as “idea units, combining more than one word in a schematic form”. For example, the proposition THE HIKER WATCHES THE ELK WITH HIS BINOCULARS is a conceptual unit that relates an agent HIKER, object ELK and an instrument BINOCULARS in a meaningful way through the use of the predicate WATCHES (Kintsch, 2004, p.1272). As they interpret information conveyed in a film or text, viewers or listeners generate inferences about missing connections between separate propositions. Furthermore, when creating a situation model of a film or an aural story, viewers or listeners use their prior knowledge of the world to infer missing

information (Graesser, Wiemer-Hastings & Wiemer-Hastings, 2001, p. 250) implied by the film or the aural story.

According to the discussion above, the two theories are not only applicable to text comprehension but to film comprehension as well. This is possible because there are similar comprehension processes involved in film and text comprehension (Graesser, Wiemer-Hastings & Wiemer-Hastings, 2001, p. 250). For instance, both film and text comprehension may involve the two processes mentioned earlier on, that is, perception and analytic thinking. It is possible that a viewer, in the same way as a reader or listener, may ask himself or herself different questions when watching a film in order to deepen his or her understanding. He or she may also be using other strategies (for instance, rewinding and forwarding the film) in order to fully understand what he or she is viewing. Regarding the three stages that Anderson (1995, pp. 378-404) proposed to be essential in the comprehension process, two of the stages may be relevant to the viewer. For instance, at the “perceptual processing” stage, the viewer may focus his or her attention on the visual images of the film and in doing so; some images of the film may be retained in short-term memory. Furthermore, the viewer may relate the mental representation of the film to declarative knowledge in long-term memory at the “utilization” stage of the comprehension process. In this way, some of the comprehension processes applicable to the listener or reader may also be relevant to the viewer.

In the next section, my focus is on the Construction-Integration Model. I discuss two main aspects of this model, different levels of mental representations (“surface level memory”, “textbase” and the “situation model”) and how a coherent mental representation may be established. In the discussion, I demonstrate that the “textbase” and the “situation model” form the “episodic text memory” and that propositions are elements of the “textbase” and the “situation model”, in other words, propositions are elements of the “episodic text memory”.

1.8 Construction-Integration Model

The Construction-Integration model (Kintsch, 1988, 1998, 2004) is an extended version of the text comprehension model by Kintsch and van Dijk (1978). The Construction-Integration model is one of the general models in text comprehension research that helps to explain the processes involved in reading and listening comprehension (Doane, Kintsch & Polson, 1990, p. 92). The model was first developed in 1978 and was later revised by van Dijk and Kintsch in 1983. In

1988, Kintsch developed the Construction-Integration model (CI model). In the CI model, production rules are used to model text comprehension processes computationally. I will not however consider the computational aspects in this thesis but only the structural aspects (see Kintsch, 1988, 1998, 2004; for more details on computational aspects).

As in schema theory, the CI model focuses on how background knowledge (schema) is used in text comprehension. However, the way background knowledge is used in the CI model is different from the way it is used in schema theory. Schema theory relies heavily on top-down processes while the proponents of the CI model stipulate that a comprehension process cannot be complete without integrating bottom-up processes with top-down processes (Kintsch, 1988, 1998, 2004; van Dijk & Kintsch, 1983). According to Kintsch (2004, p. 1279), “schema-as-filter theories of comprehension cannot fully account for comprehension processes and have been replaced by theories that assign a more decisive role to bottom-up processes, such as the Construction–Integration (CI) model”. The way the CI model operates will be illustrated using sentences 9 and 10 below from Kintsch (2004, p. 1279).

9. The nurse scolded the woman because she had not taken her medicine.

10. The hiker saw the grizzly bear. He was afraid.

Sentences 9 and 10 above are ambiguous but we are able to arrive at the correct meaning using top-down and bottom-up processes. We are able to tell what “she” is referring to in sentence 9 because of the nurse-patient schema. We therefore know that in this context “she” refers to the woman not the nurse. We also know what “he” is referring to in sentence 10 because of the grizzly bear schema. We therefore know that it was the “hiker” who was afraid and not the “bear”. According to the CI model (Kintsch, 2004, p. 1279), the comprehender “generates several plausible meanings in parallel and only later, when a rich context is available, sorts out which construction is the right one”. He or she is able to sort out the correct meaning through an integration or constraint satisfaction process. Integration or constraint satisfaction process entails that those constructions that are not in line with the context are suppressed and those that are relevant are strengthened.

Regarding sentences 9 and 10, the comprehender generates several plausible meanings (such as, the nurse or the woman had not taken medication as in sentence 9 and the hiker or the bear was

afraid as in sentence 10). However, the incorrect meaning becomes deactivated during the integration phase. Regarding this, Kintsch (2004, p. 1279) explains that “activation is spread around in the propositional network that has been constructed, including the contradictory elements; the activation eventually settles on those nodes of the network that hang together, while outliers and isolated nodes become deactivated”. This is illustrated in Figure 1.1 below. At the construction phase, two plausible meanings of sentence 9 are represented by the propositions [NOT-TAKE, NURSE, MEDICINE] and [NOT-TAKE, WOMAN, MEDICINE] (Kintsch, 2004, p. 1279). According to Kintsch, the construction process therefore yields an incoherent network. This incoherent network is represented by a curved line with spaces in the illustration below. The incoherent network is cleaned up at the integration phase. At the integration phase, the correct proposition [NOT-TAKE, WOMAN, MEDICINE] therefore wins because it is connected to prior knowledge about nurses and patients (referred to as NURSE SCHEMA in the illustration in Figure 1.1 below).

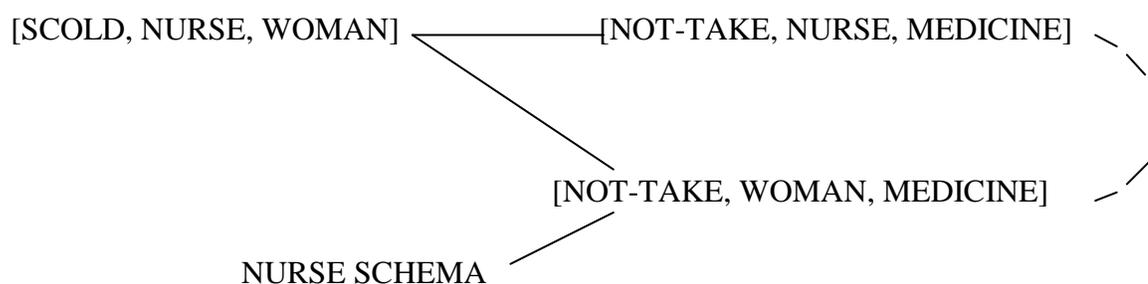


Figure 1.1 An illustration of how a comprehender generates correct meaning according to the CI model (Kintsch, 2004, p. 1279)

In this way, schemas are said to play a role in the CI model, however, “not as filters that control construction but as context that influences the integration process” (Kintsch, 2004, p. 1279). Regarding sentence 10, it is not clear at the construction phase whether the hiker or the bear is afraid hence we get two possible propositions [AFRAID, HIKER] and [AFRAID, BEAR]. However, this uncertainty is sorted out at the integration phase through the work of prior knowledge (the grizzly bear schema). As a result, the proposition [AFRAID, HIKER] wins. According to Kintsch (2004, p. 1280):

[t]he CI model uses a bottom-up construction phase in which contradictory assumptions are explored, resulting in an incoherent network that needs to be

cleaned up in the integration phase. The computational advantage of such a dual process is that the construction rules do not have to be very smart, because errors can be corrected in the integration phase.

One advantage of the CI model is that it involves both top-down and bottom-up processes. This means that lower level processes (for example, discriminating between phonemes, recognizing words, differentiating between content and function words by stress pattern) that are associated with bottom-up processes and higher level processes (for example, finding main idea, evaluating themes, inferencing, analytic thinking) that are associated with top-down processes are incorporated in the CI model. As a result, it models the comprehension process in its entirety. Another advantage of the CI model is that it considers different levels of mental representation for an effective comprehension process as discussed in the sections that follow.

1.8.1 Mental representations

The structural aspects of the CI model include different levels of mental representations and the propositions that make up the elements of the mental representations. The process of building a mental representation of the text is referred to as comprehension and the coherent mental representation of text is known as the episodic text memory. In a similar way to the schema theoretic model, it is assumed that once a reader has managed to construct a mental representation of a text then he or she has comprehended the text (Kintsch, 2004, p. 1271). The CI model also assumes that readers construct a coherent mental representation of the text they are reading. In order to do so, inferences are needed. In this section, I discuss different levels of mental representations (the “surface level memory”, “textbase” and “situation model”) as well as propositions and inferences generated at “textbase” level. Only three levels of mental representation are considered here, even though other levels of mental representation such as, thematic point, agent perspective, genre and pragmatic context, have been discussed by other researchers (see for example, Graesser, Olde & Klettke, 2002). These other levels of mental representation are not discussed here because they are not relevant in this thesis. For instance, participants in the current study are not required to identify themes from text they listen to. Furthermore, this study does not consider pragmatic context. The three levels that are discussed here have been recognized by most researchers and have been empirically verified (Graesser, León & Otero, 2002).

1.8.1.1 The surface level memory

According to Kintsch (2004, p. 1273), the “surface level memory” is a mental representation a comprehender forms from a text. It is the memory that the comprehender has for the actual words and phrases of the text. However, this memory is short lived as the comprehender does not remember the exact wording of the text for any longer than a minute (Graesser, Olde & Klettke (2002, p. 236); hence “surface level memory” of text is widely regarded as not being necessary in text comprehension (Kintsch, 2004, p. 1273). In text comprehension, it is important that the comprehender remembers the message, that is, the ideas expressed by the text but not the exact wording of the text. This is what is referred to as the propositional level of representation (Kintsch, 2004, p. 1273) because meaning is mentally represented in propositions (propositions are discussed in detail below). In the CI model, according to Kintsch (2004, p. 1273), the propositional level of representation is represented at the two levels of understanding: the “textbase” and the “situation model”. These two levels of understanding form the episodic text memory, that is, the coherent mental representation.

1.8.1.2 The textbase

The “textbase” represents ideas or messages conveyed by text. It is concerned with the semantic content of the discourse. In other words, it is a semantic level of text representation (Kintsch, 2004, p. 1273). The “textbase” encompasses the meanings of sentences and how they connect locally and globally. At this level of mental representation, comprehenders draw knowledge from stored memory to make sense of the surface structure, that is, words and phrases of the text. The “textbase” is said to consist of propositions. The term “proposition” is borrowed from logic but text comprehension researchers employ it in a different way from philosophers. As indicated earlier on in section 1.4, propositions are defined by Kintsch (2004, p. 1273) as the smallest idea units that combine more than one concept in a schematic form. According to Graesser, Olde and Klettke (2002, p. 235), a proposition “contains a predicate (e.g., main verb, adjective, connective) that interrelates noun-like arguments (referring to people, objects, locations, etc)”. Each argument performs functional roles such as agent, patient, object, or location. A proposition refers to a state, event or action that may be true or false. Consider the following propositions from the sentence “the lucky president flew back to Memphis and paid the monthly salary of his employees” as illustrated by Graesser, Olde and Klettke (2002, pp. 235-236):

P1 (predicate: FLY, agent: PRESIDENT, goal-location: MEMPHIS)

P2 (predicate: LUCKY, person: PRESIDENT)

P3 (predicate: PAY, agent: PRESIDENT, recipient: EMPLOYEES, object: SALARIES)

P4 (predicate: POSSESS, person: PRESIDENT, person: EMPLOYEES)

P5 (predicate: MONTHLY, object: SALARIES)

P6 (predicate: AND, event: P1, event: P3)

Propositions P1 and P3 are considered as actions in the plot, whereas propositions P2, P4, and P5 are states (Graesser, Olde & Klettke, 2002, p. 236). Proposition P6 links together other propositions in the text (P1 and P3). A proposition is also considered as a conceptual unit as in “The hiker watches the elk with his binoculars” (Kintsch, 2004, p. 1272). This unit relates an agent (HIKER), object (ELK) and an instrument (BINOCULARS) in a meaningful way through the use of the predicate (WATCHES).

There are two types of propositions as presented by text comprehension theorists: atomic propositions and complex propositions (van Dijk & Kintsch, 1983; Kintsch, 2004). Kintsch (2004) defines an atomic proposition as a meaningful unit that consists of one relational term (or a predicate) and one or more arguments (concepts or other propositions). Some examples of phrases and sentences and their corresponding atomic propositions from Kintsch are given below:

11. Little boy or the boy is little.

[LITTLE, BOY]

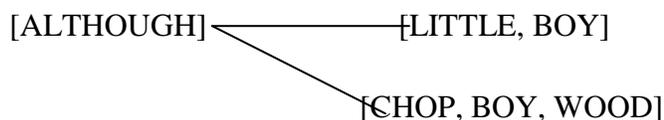
12. The boy chopped the wood.

[CHOP, BOY, WOOD]

According to Kintsch’s definition of a proposition, in (11) above, LITTLE is a predicate and BOY is an argument and in (12), CHOP is the predicate and BOY and WOOD are arguments.

A complex proposition, on the other hand, consists of a network of atomic propositions that are subordinated to a main proposition (Kintsch, 2004). For example,

13. Although the boy was little, he chopped wood.



The propositional embedding in (13) above makes the arguments of the proposition atomic propositions.

From the examples above, it can be seen that only textual information is represented as “textbase”. This therefore excludes any information that is retrieved from the comprehenders’ prior knowledge. Information gained at “textbase” level enables the comprehender to answer questions about the text, verify statements about the text, recall the text and summarise it. This is because unlike the surface level of memory, which is short lived lasting for less than a minute, memory for information at the “textbase” level lasts for an hour (Graesser, Olde & Klettke, 2002, p. 236).

As pointed out above, the “textbase” does not include information from prior knowledge. It consists of the microstructure and macrostructure. According to Louwerse and Graesser (2006, p. 427), microstructures are structures that organise texts locally while macrostructures organise texts globally. Texts need to be structured both locally (connections between clauses and sentences) and globally (larger fragments of discourse in the form of paragraphs, sections and chapters). The organisation of texts at microstructure and macrostructure levels enables readers or listeners to, among other things, identify referents of pronouns, match synonymous terms and establish a coherent representation of text. This is illustrated using the following story from Kintsch (2004, p. 1276) about a couple that lived on a farm with their two children (Katie and Tom).

- a. Electricity is coming to town.
- b. The children wonder what sort of appliance their parents are going to buy.
- c. Their father asks them to guess what electricity-using appliance they will get first.
- d. Katie finds out how electricity works and what it is used for.
- e. She finds out that the appliance is not to produce either heat or motion.

- f. Because there are two wires on the electric line being installed, the first appliance their parents buy will be a telephone.

At microstructure level, the reader or listener should be able to identify referents of pronouns “them” and “they” in sentence (c), “it” in sentence (d) and “she” in sentence (e) whereas at the macrostructure level, the reader should be able to identify the setting of the story, the complication and the resolution. This means that from their knowledge of stories (story schema or story grammar, see section 1.9.7.4 for more details), the reader or listener should be able to identify (a) and (b) as the setting of the story, (c), (d), and (e) as the complication and (f) as the resolution.

The microstructure of a text is therefore a network of propositions or ideas at a local level whereas the macrostructure of a text is the global organisation of propositions or ideas into higher order units such as paragraphs, sections and chapters. At the macrostructure level in a story, propositions are grouped into higher order units such as setting, complication and resolution as illustrated in the story above about a couple that lived on a farm. In text or story comprehension, the ideal result is a coherent “textbase” and “situation model” at both local and global levels.

1.8.1.3 The situation model

The third type of mental representation in the CI model is known as the “situation model”. This is what other theorists have referred to as “mental models” (Johnson-Laird, 1983). The concept of a mental model is often used to describe the outcome of a comprehension or learning process in educational psychology (Johnson-Laird, 1983, p. 123). Besides a comprehension or learning process, mental models can also be used to describe the outcome of perception and imagination processes (Johnson-Laird, 1983, p. 473). Furthermore, mental models are considered as “analogous to architects’ models or to physicists’ diagrams” in that their structure is similar to the structure of the situation that they represent (Johnson-Laird, 2004, p. 181). Mental models are also said to rely on mental images (Johnson-Laird, 1983, p. 155-158). For instance, in text comprehension a reader or listener mentally represents what he or she reads or listens to. In other words, he or she may mentally create images of what he or she is reading or listening to. Mental representations thus serve as models of entities in reality. The idea that people rely on mental models can be traced back to Craik’s (1943, p. 61) suggestion that the mind constructs “small-

scale models” of reality that it uses to anticipate events. Even though mental models rely on mental imagery of entities in reality, they can also be abstract because they represent situations that cannot be visualised, for example, negation and ownership. It would be difficult to mentally represent the concept of “null and void”. Mental models are consequently criticized, as they are incomplete representations of reality. For instance, Forrester (1995, p. 4) argues that mental models are “fuzzy, incomplete, and imprecisely stated”. This means that their representations are inconsistent, as in most cases they depend on context and may change to fit the situation in which they are used. According to Jones, Ross, Lynam, Perez and Leitch (2011, p. 2), “mental models have to be highly dynamical models to adapt to continually changing circumstances and to evolve over time through learning”. Because mental models are neither static nor consistent, they may have an effect on the outcome of comprehension.

The “situation model” is considered as a “deeper” level of representation than the other two levels discussed above (Graesser, Olde & Klettke, 2002, p. 236) because the representation of text at this level is preserved in memory for several days, months or years unlike the “surface level memory” and the “textbase” level which preserve representation of texts for less than a minute and an hour respectively. Furthermore, “deeper” level of understanding which is also known as “elaborated” textual representations correspond to a “deeper understanding of the text [...] and include knowledge-based inferences, that is, those that integrate text and general knowledge” (Barnes, Dennis & Haefele-Kalvaitis, 1996, p. 217). The situation model is the mental representation of what a story is about. The spatial setting and the chronological sequence of events in the plot are part of the situation model (Graesser, Olde & Klettke, 2002, p. 237). This means that a comprehender creates a mental representation of the core plot⁵ of a story with the following plot structure: conflict, goal, action, outcome or consequence (see Table 1.4, Table 1.5 and Table 1.6 for more details about these elements of a story). Explicit and inferred information are also part of the situation model. Explicit and inferred information elaborate and embellish the plot. Information that elaborates and embellishes the plot includes the spatial setting, the style and procedure of actions, properties of objects and characteristics of agents. According to Graesser and Clark (1985), Kintsch (1998) as well as Trabasso and van den Broek

⁵ Main plot of the story, some stories with several episodes may have other mini plots. A simple story generally has one episode while complex ones contain two or more episodes that are connected to each other in several ways (Shapiro & Hudson, 1991, p. 965).

(1985), information that serves the purpose of elaborating and embellishing the plot is not preserved in memory for a long time. This is demonstrated using the following story that was presented earlier on from Kintsch (2004, p. 1276) about a couple that lived on a farm with their two children (Katie and Tom).

- a. Electricity is coming to **the only town situated in the central eastern part of the country.**
- b. The children wonder what sort of appliance their parents are going to buy **using the money that they had kept from last year's harvest.**
- c. Their father **who is very excited about the coming of electricity** asks them to guess what electricity-using appliance they will get first.
- d. Katie, **the only daughter in the family,** finds out how electricity works and what it is used for **by reading one of the books that her father had bought solely for that purpose.**
- e. She finds out that the appliance **that they were intending to buy** is not to produce either heat or motion.
- f. Because there are two wires on the electric line being installed **a few meters from their home,** the first appliance their parents buy will be a telephone.

Information that serves the purpose of elaborating and embellishing the plot is highlighted. This information may not be preserved in memory for several days, months, or years whereas information that is not highlighted may be stored in memory for a long time. This is in accordance with evidence provided by discourse psychologists that “the main causal chain that chronologically unfolds in the plot is retained in memory much longer than the ornamental details” (Graesser, Olde & Klettke, 2002, p. 237).

The situation model is created based on the following: information explicitly stated in the text, prior knowledge (whether general or specific or a combination of the two) and inferences that the comprehender generates. A variety of sources of knowledge is required to construct the situation

model, for instance, knowledge about the language used in the text (metalinguistic knowledge⁶), general world knowledge, knowledge about the specific communication situation, domain-specific prior knowledge and personal experiences (Tibus, 2008, p. 12). In other words, besides knowing the language used in the text, a comprehender needs to have different forms of schemata, for example, domain-specific knowledge would be content schemata; knowledge about the specific communication situation would be scripts.

Figure 1.2 presents an example of three different levels of mental representation: the “surface level memory”, “textbase” and “situation model”. It illustrates how a comprehender utilizes his prior knowledge in order to create a situation model. The figure specifically illustrates how blood circulates in the body of a child who has a septal defect⁷. The text demonstrates that blood in the body of such a child cannot get rid of enough oxygen through the lungs and as a result the blood that circulates around his body looks purple. The text does not say anything about “red” blood but the situation model indicates the presence of “red” blood carrying oxygen. This means that the comprehender utilizes his prior knowledge of blood hence the inclusion of “red” blood in the situation model. The situation model therefore indicates that two sets of blood (red and purple blood) circulate around the body of a child with a septal defect.

⁶ Metalinguistic knowledge concerns the ability of a person to reflect on and consciously ponder about oral and written language and how it is used.

⁷ A septal defect is a congenital heart defect. It affects “how blood flows through the heart and out to the rest of the body. Some defects might have few or no signs or symptoms, while others might cause a baby to have bluish tinted nails or lips, fast or troubled breathing, to tire easily when feeding, or to be very sleepy” (Sweatlock, 2013, p. 1).

Text:

When a baby has a septal defect, the blood cannot get rid of enough carbon dioxide through the lungs. Therefore it looks purple.

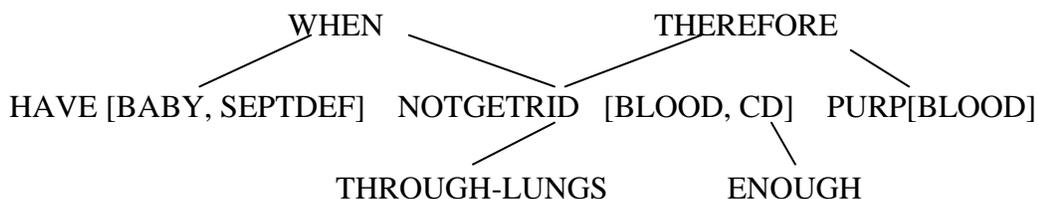
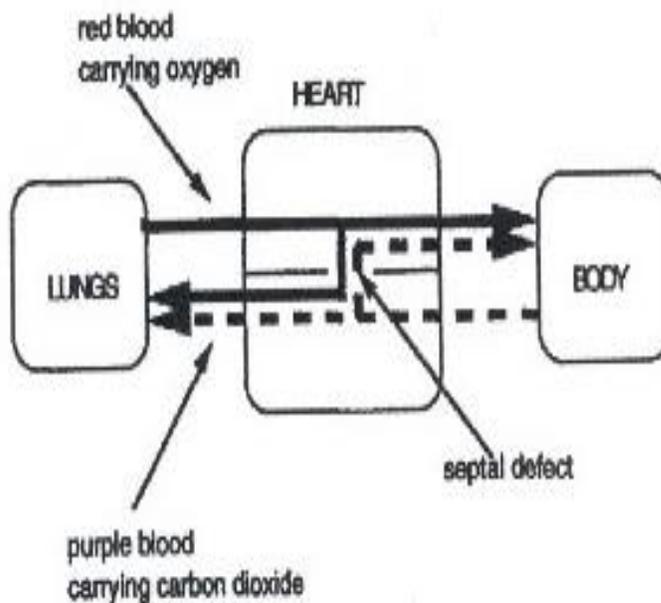
Textbase:**Situation Model:**

Figure 1.2 A two-sentence text fragment with its textbase and situation model (Kintsch, 1994, p. 295)

According to van Dijk and Kintsch (1983), the “textbase” and the “situation model” consist of propositions (see the definition of the term “proposition” and the explanation of the phrase “episodic text memory” above). The “textbase” and the “situation model” create the episodic text memory of the comprehender. Adam and Butler (1999, p. 491) call the episodic text memory the end product of the comprehension process. It is the end product of the comprehension process

because comprehension requires the reader to construct a coherent mental representation of the text. A coherent textbase and a coherent situation model are necessary to form a coherent episodic text memory. Once a comprehender has established an episodic text memory, it means he or she has understood the text at a deeper level. Failure to comprehend a text implies failure to form a coherent textbase and/or a coherent situation model.

The situation model is relevant in this study because in the story [re]tellings, participants mentally represent what they see in a wordless picture book, watch in cartoon films or what they listen to in aural stories (see Chapter 3, section 3.5, for details of the materials used in the empirical study). Moreover, participants make use of their world knowledge to make sense of the picture book, cartoon films or the aural stories. Furthermore, when creating a situation model of the picture book, cartoon films and the aural stories, the participants would be required to infer missing information implied by the pictures in the book, the films or the aural stories. According to Rai, Loschky, Harris, Peck and Cook (2011, p. 189), inferential processes require working memory. The reader, listener or viewer needs to hold the propositions they come up with at the textbase level in working memory, while retrieving relevant world knowledge from long-term memory into working memory, and use the relevant world knowledge that they retrieve to fill in the missing propositions needed for the situation model to make sense (Rai et al., 2011, p. 189). According to Rai et al., second language listeners need to frequently use considerable processing resources in order to decode the surface and textbase levels. This means that there are fewer working memory resources left for second language listeners to draw inferences at the situation model level. This therefore makes second language listening an even more challenging task than first language listening (Horiba, 1996; Kembo, 2001, Walter, 2004). As a result, inferences drawn from a second language comprehension task may be fewer than inferences drawn from a first language comprehension task because of working memory limitations. This therefore means that second language listeners may be at a disadvantage when it comes to comprehension tasks because the fact that they may be able to make fewer inferences prevents them from achieving a coherent mental representation of a text. According to Tibus (2008, p. 18), “[t]o form a coherent mental representation of the text, the reader needs to generate a situation model. To transform the textbase into a situation model, inferences are again necessary”.

1.8.2 A coherent mental representation in relation to the CI model

When a reader or listener has comprehended a text, it means he or she has established a coherent mental representation of the text. When the reader or listener fails to establish a coherent mental representation of the text, then he or she falls short of accomplishing comprehension. This section provides an answer to the question; how does a reader or listener manage to establish a coherent mental representation of text?

According to Kintsch (1988, 1998, 2004), for comprehension to be accomplished, a comprehender is required to construct a coherent mental representation of the text that has been referred to as “episodic text memory” in section 1.8.1.1. A coherent textbase and a coherent situation model make up a coherent episodic text memory, in other words, they make up a coherent mental representation. Only once an episodic text memory has been established, can it be said that the comprehender has understood the text at a deeper level (Tibus, 2008, p. 22). A coherent mental representation is the foundation upon which individuals can perform story [re]tellings and answer questions based on what they have viewed, read or heard. Sometimes readers or listeners fail to comprehend text because they cannot form a coherent mental representation of the text (that is, an episodic text memory) (Tibus, 2008, p. 22); hence they have problems in performing story [re]tellings and answering comprehension questions (Cain, Oakhill & Bryant, 2000; Goh, 2000).

Sometimes individuals fail to comprehend text because they lack the appropriate schema for it. In the sections that follow, I provide different definitions of the term schema. I also provide different terms that schema theorists use to refer to the concept of schema with an aim to explain the role of schema in comprehension. This is followed by a discussion of the origins of schema theory through the work of Bartlett (1932).

1.9 Schema Theory

1.9.1 Different definitions of the term “schema”

Research in psychology and cognitive science has demonstrated that our past experiences or our background knowledge play a crucial role in the process of comprehension. Past experiences or background knowledge are more often referred to as schemas (or schemata). Bartlett (1932, p. 201) defines the term schema as “an active organization of past reactions, or of past experiences,

which must always be supposed to be operating in any well-adapted organic response". Bartlett views schemas as being active without any awareness at all. Two important characteristics of schemas can be identified from his definition. The first one is that schemas are organised and the second one is that schemas consist of acquired knowledge especially when he refers to them as "masses of organized past experiences" (Bartlett, 1932, pp. 197-198). Bartlett assumes that constant exposure to a certain phenomenon results in a generic cognitive representation of the phenomenon.

Schemas, have also been defined by Rumelhart and Ortony (1977, p. 100) as interacting knowledge structures. These structures are stored in hierarchies in long-term memory. Schemas are also known as abstract representations of stories or events, activities and objects in the real world. For instance, schemas are referred to as the mental representations that readers or listeners have of the parts of a typical story and their relationship (Mandler & Johnson, 1977). Human beings are said to have stored different forms of schemas in long-term memory. According to Carrell (1983, p. 82),

[w]e have stored away all sorts of schemata – for scenes, events, activities, etc. We have schemata for going to restaurants of different types (fast food places, elegant French restaurants, Chinese restaurants, etc.), for attending and presenting papers at professional meetings, for visits to doctors' offices, for rooms in our houses and for the kinds of furniture and the way we expect that furniture to be arranged in these rooms.

Further types of schemas are "frames" (Fillmore, 1976), "scripts" (Schank & Abelson, 1977), "event chains" (Warren, Nicholas & Trabasso, 1979) and "expectations" (Tannen, 1979). These terms are not identical but they share certain similarities as they all try to capture the processes involved in comprehension. Apart from past experiences and background knowledge, the concept schema has also been used to describe the structure and organisation of linguistic and discourse knowledge. This has led to the coining of other related terms such as "sentence schemata" (Winograd, 1983), "story schemata" (Johnson & Mandler, 1980; Mandler, 1978), "formal/rhetorical" and "content schemata" (Carrell, 1983, 1984a, 1984b), "textual schemata" (Swaffar, 1988) and "symbolic schemata" (Oller, 1995).

1.9.2 Origins of Schema Theory

The schema concept was introduced into psychology and education through the work of Sir Fredric Bartlett in 1932. Bartlett developed a number of proposals about schema processing. He assumed that all new information interacts with the old information represented in the schema. He demonstrated this in a series of experiments about how human beings are able to interpret new information and also how they are able to recall information over time (Bartlett, 1932, pp. 172-175). He did this by presenting participants with information that was unfamiliar to their cultural backgrounds and expectations. He then monitored how they recalled different items of information (for instance, stories). In one of the investigations, he asked British participants to read a Native American folktale, “The war of the ghosts”, and to recall it several times; the final recall happened up to a year after the first exposure to the folktale. The folktale contained names and concepts that were typically Native American. Overall, the story was developed in a manner that was foreign to the participants. However, the story was ideal for a study that was trying to investigate how memory was reconstructed based on schema processing. The participants’ recalls of the folktale reflected the following:

- Information that was regarded as irrelevant was not included.
- Some of the details of the folktale were altered, for instance, the folktale was not recalled in the same order by some participants. This transformation was a result of a shift of focus and emphasis in terms of what were considered the most important aspects of the tale.
- The content and the style of the story were transformed for the sake of coherence and for the sake of making them appropriate to the participants’ cultural background.
- Some of the details and aspects of the folktale that would not make sense were expanded in such a manner that a listener or reader would not have any problem in understanding the contents.

The results demonstrate that the participants changed the story as they tried to remember it, a process Bartlett has referred to as “distortion” (Bartlett, 1932, p. 275). Bartlett (1932, p. 275) reports that the stories that the participants narrated showed three patterns of distortion: assimilation, leveling and sharpening. Regarding assimilation, the participants’ recalls were in

line with their schemata, that is, the details of the story reflected their cultural norms and expectations. In other words, the participants changed the details of the story to fit the norms of their British culture. Regarding leveling, the stories that the participants narrated became shorter and shorter at each [re]telling and their stories showed that information that was seen as not important was omitted (see section 1.9.3). Finally regarding sharpening, the participants reordered the story and narrated it using terms that were more familiar to their culture. They also added other details to their stories such as emotions. Overall, the results demonstrate that the participants managed to remember the main themes in the story even though they changed unfamiliar elements to fit their own norms and cultural expectations. Furthermore, despite the fact that the story was distorted, the participants managed to come up with [re]tellings that were coherent.

Bartlett's work (1932) demonstrates that the process of remembering is not a passive one but active because people retrieve and change information to fit into their existing schemas. Bartlett's research has therefore been credited for formulating the theory of reconstructive memory and also for providing support to the schema theory (Brewer & Nakamura, 1984, p. 33). According to Brewer and Nakamura (1984, pp. 13-14), Bartlett's research shows that memories are not copies of experiences but rather reconstructions. This does not mean that memory is unreliable but rather that memory can be altered by existing schemas. However, Bartlett's study has been criticized because it was performed in a laboratory and therefore lacks "ecological validity" due to the fact that it was not based on real-life events (Wynn & Logie, 1998, pp. 2-3). According to Brewer and Nakamura (1984, p. 37), "[t]he general approach has been to assert that cognitive psychology should not study narrow laboratory tasks, but should study tasks that occur in real life". The study has also been criticized because the methodology used was not controlled properly (Roediger, Wheeler & Rajaram, 1993; Zangwill, 1972). For instance, Roediger, Wheeler and Rajaram (1993) state that the participants did not receive standardized instructions and as a result some of the distortions could be due to participants' guessing or other demand characteristics.

Because the process of remembering, as demonstrated by Bartlett's (1932) work, is not a passive one but active, it is necessary to consider some of the processes that are involved in story recalls through the work of schemas or schemata. However, before I discuss such processes, I first of all

consider the notion of “important” text elements in relation to schemas because this is crucial to our understanding of the processes involved in story recalls. Thereafter, I discuss the relationship between schemata and remembering. This is followed by a discussion about the relationship between schemata and attention. Finally, I discuss the strengths and limitations of the schema theory.

1.9.3 The notion of “important” text elements

Schemas have been described as abstract representations of stories or events, activities and objects in the real world (Anderson & Pearson, 1984). According to Anderson (1977, p. 2), a schema “represents generic knowledge; that is, it represents what is believed to be generally true of a class of things, events, or situations”. A schema represents generic knowledge that describes the typical components of the concept it represents. For instance, it represents the typical components of a thing, event or a situation. A schema is considered to contain a slot for each component (Anderson, 1977, p. 3). Using the example provided by Anderson (1977), a face schema includes slots for a mouth, nose, eyes, and ears. A face schema is therefore used to interpret any new information that is presented concerning a person’s face. Once the new information is given, the schema's slots are “instantiated” with the particular details of a person’s face (Anderson, 1977, p. 3). This means that there will be matching of the new information given with the slots in the schema i.e. typical components of a face.

A schema is said to contain embedded subschemata (Anderson, 1977, p. 4). According to Rumelhart and Ortony (1977, p. 100), it is at the level required to subsume a text when a schema will contain embedded schemata. For instance, a FACE schema does not only include slots for the MOUTH, NOSE, EYES and EARS but it includes slots for specific details as well, for example, the components of the EYE. The components of the EYE are thus subschemata. In this case, the superordinate-subordinate relationship is presented as a FACE HAS AN EYE, the EYE HAS A PUPIL and the PUPIL DILATES (Anderson, 1977, p. 4). Accordingly the EYE is a subschema embedded in the FACE schema; and the PUPIL is a subschema of the EYE. During encoding, a listener is not necessarily required to instantiate slots for the subschemata as explained by Anderson (1977, p. 4) “that a person can employ a dominant schema without necessarily accessing the knowledge available in embedded subschemata. On the other hand, should the occasion demand it, the full meaning of a subschema can be unpacked and a deeper interpretation given”.

The schema and subschema relationship, which is also described in terms of the superset and subset relationship results into the subschemas being organised in the form of a hierarchy (Anderson & Pichert, 1978, p. 2). Anderson and Pichert explain that the subschemata are represented hierarchically without affecting the interrelationship between schemas and subschemata. The way subschemata are arranged in the hierarchy reflects their importance. This means that schemata that are regarded as important are found high up in the hierarchy. Furthermore, important text elements are “the ones that instantiate slots in the high-order subschemata” (Anderson & Pichert, 1978, p. 2). From this, schema theory is said to provide an explanation as to why in text comprehension, important information is more likely to be recalled than unimportant information (Anderson & Pichert, 1978, p. 2). It is therefore important to discuss schema theory in relation to the notion of important text elements in this thesis because it helps to explain why participants include certain elements of a story in their [re]tellings and leave out others.

The notion of important text elements is explained in terms of the different purposes or perspectives that readers or listeners have regarding a text they are reading or listening to (Pichert & Anderson, 1976, p. 6). This approach to text is different from the one proposed by other theorists (for example, Mandler, 1978; Mandler & Johnson, 1977). Mandler and Johnson (1977, p. 133) argue that certain story grammar elements are more important (“setting”, “beginning” and “outcome”) than others (“ending” and “reaction”) because they contribute to the formation of a well-structured story. Pichert and Anderson (1976, p. 6), however, hypothesize that “structure is not an invariant property of text, but rather that it depends upon perspective”. Pichert and Anderson (1976, p. 6) define an important element as an element that “‘fits in’ to an organized structure of information” and is therefore considered as “more learnable”.

Yekovich and Thorndyke (1981) suggest that readers process important text elements more thoroughly than unimportant ones and this is the reason why they recall such elements during retrieval. Readers or listeners are considered to be “more likely to carefully pay attention to and deeply encode important elements. Hence, it is predicted that the likelihood a text element will be learned will vary according to perspective” (Pichert & Anderson, 1976, p. 6). This approach of classifying some elements as important can be criticized because it is subjective. What some readers or listeners may regard as important elements may be unimportant to others. This is all

because readers or listeners approach text with different purposes or perspectives in mind. However, readers' or listeners' perspectives may have an impact on remembering the text elements that have been learned and it may also have an effect on attention, as discussed in the next two sections.

Several experiments have been conducted in the past with the aim of investigating how the notion of "important" text elements may be explained in terms of schema theory (Anderson & Pichert, 1978; Anderson, Pichert & Shirey, 1983; Pichert & Anderson, 1976). In one of the experiments, Pichert and Anderson (1976, p. 8) asked participants to read a story about what two boys did after they had skipped school on a Thursday. One of the boys convinced his friend to go to his home because his mother was never home on Thursdays. The boy who invited his friend to his home on this particular day came from a well-to-do family with a luxurious home. The story includes the description of the boy's home as well as what was contained in it. For instance, the home had spacious grounds, a tall hedge that hid the house from the road, and inside the home was a new stone fire-place. Even though the house was luxurious, it had some problems such as a musty basement and a leaky roof. Furthermore, inside the house were a number of valuable possessions such as silverware, a coin collection, a color TV set. The story also mentions that the boy's father had famous paintings and the house had a garage that contained three 10-speed bikes. In this experiment, Pichert and Anderson (1976, p. 8) asked a third of their participants to read the story from the home buyer perspective, another third read it from the burglar perspective whereas the final third read the story without being assigned any perspective.

The results of the experiments conducted using the story narrated above demonstrate that participants recalled more important elements than unimportant ones and that the importance of the elements depended on the perspective that participants were assigned (Pichert & Anderson, 1976). For instance, participants who were assigned the home buyer perspective included in their recalls elements such as the musty basement and the leaky roof while those who were assigned the burglar perspective remembered more about the valuable items in the home. Pichert and Anderson (1976) concluded that people learn more of the important than the unimportant ideas in stories and that the importance of an idea unit depends upon perspective. According to Pichert and Anderson (1976, p. 16), "it was an idea's significance in terms of a given perspective that influenced whether it was learned and, independently, whether it was recalled".

To illustrate why participants remember important elements or ideas more readily than unimportant ones in terms of schema theory, it is assumed that participants who were assigned the burglary perspective may have had the BURGLARY schema in operation during comprehension of the story. The BURGLARY schema is assumed to have subschemata such as LOOT subschema (Pichert & Anderson, 1976). From the story, the three 10-speed bikes and the boy's father's famous paintings may qualify as loot, it is therefore "hypothesized that these items are likely to be entered into slots in the loot subschema and become part of the instantiated memorial representation for the story" (Pichert & Anderson, 1976, p. 16). This entails that slots in the BURGLARY schema would need to be filled with relevant information in line with the BURGLARY schema such as looting, breaking, entering and getting away. In other words, the BURGLARY schema does not have slots that could be filled with information such as the leaky roof or musty basement because this information is suitable in another schema such as HOME BUYER schema. Since this information does not fit in the BURGLARY schema, it is "unlikely to become part of a memorial representation constructed under the aegis of a burglary schema" (Pichert & Anderson, 1976, p. 16).

1.9.4 Schemata and remembering

In this section, my focus is on schemata and remembering. This area of focus is important because participants in my study were required to recall stories that were presented to them in different modes (aural and/or visual). In order for them to comprehend and remember the stories during recall time, they might have relied on the operation of their schemata.

Researchers in the past (for example, Bartlett's study in 1932) were interested in finding out how people learn and remember information from text. What interest researchers even today is that participants who are asked to read one or more passages with the purpose of recalling or summarizing them after reading, successfully recall information which is regarded as important (refer to the previous section and Bartlett's study in section 1.9.2 in which participants recalled important rather than unimportant information). For instance, Binet and Henry (1884) cited in Newsome (1986) report that the most important information was recalled by almost every participant in their study. Similar findings stem from experiments that required participants to summarise text (Thorndyke, 1977). Furthermore, there is also evidence that readers recall information that is related to their prior knowledge or their schemata (see the previous section).

There are three hypotheses that have been formulated in order to assess how a person's schema influences remembering (Anderson & Pearson, 1984): the retrieval-plan hypothesis, the output-editing hypothesis and the reconstruction hypothesis.

According to Anderson and Pearson (1984, p. 56), the retrieval-plan hypothesis involves a top-down search of schema in memory (see section 1.6 on top-down processes). The idea behind this hypothesis is that a reader begins by retrieving general concepts incorporated in the schema but related to information in the text and connects them to specific concepts that were presented when the passage was being read (Anderson & Pearson, 1984, p. 56). For example, a person who reads or listens to a story about building a house uses his general knowledge about building, in other words, his BUILDING A HOUSE schema (that is, that the house should have some parts or rooms, it should require some materials for building, it should serve some function, it should be of a certain shape and size, etc)⁸ and then relates this knowledge to information presented in the story. A top-down schema-guided search ensures that information important for the activated schema is accessed and that information unrelated to the schema remains inactivated (Anderson & Pearson, 1984, p. 56). Using the example provided earlier on, this means any information unrelated to the 'building a house' schema would not be activated.

A study by Anderson, Pichert and Shirey (1983, p. 272) provides evidence for the retrieval-plan hypothesis. In their study, participants were instructed to read the story referred to in the previous section about two boys who had skipped school. Participants were assigned the same perspectives as reported in the previous section (participants read the story with either the perspective of a burglar or home buyer in mind). The perspectives were assigned to participants before reading, shortly after reading or long after reading the passage (that is, approximately two weeks after the initial session). According to Anderson, Pichert and Shirey (1983, p. 276), the results support the hypothesis in the sense that the perspective search provides access to information important to the perspective at hand and information unrelated to the perspective could not be retrieved. For instance, when retrieving information with the burglar perspective in mind the reader used his or her expectations of burglaries (for example, that burglars are generally interested in valuable items that are portable) and in the process was reminded of the

⁸ In other words, a schema for building a house has slots for parts, materials, function, shape, size, etc.

information that he or she read about in the passage (that is, that the house had valuable portable possessions such as silverware, a coin collection, a color TV set). Hence, the reader retrieved this information and sifted out anything contrary to his or her expectations of burglaries. A conclusion from this study was that the perspective that people use when reading a story is also used when recalling it (Anderson, Pichert & Shirey, 1983, p. 276). However, one could criticize this hypothesis because it only involves a top-down search of schema in memory. An effective comprehension process involves both top-down and bottom-up searches. This is the reason why researchers in the field of reading comprehension have developed the interactive model which takes into account both top-down and bottom-up processes (see section 1.5 for more details).

The output-editing hypothesis, on the other hand, demonstrates that a schema provides the basis and motivation for output-editing (Anderson & Pearson, 1984, p. 57). A person may choose what to include or not include when recalling a passage as guided by the schema already present in their memory. Anderson and Pearson (1984, p. 57) state that studies that report findings in which participants recalled more important information than unimportant information, provide support for this hypothesis (see related information in the previous section and also at the beginning of this section). They explain that “[t]he pattern of results that involves increased recall of important information and decreased recall of unimportant information could be explained in terms of perspective-induced shifts in standards for output-editing” (Anderson & Pearson, 1984, p. 57). The output-editing hypothesis may be criticized for the option of having the comprehender choose what to include or not include in their recall. This is not a good strategy for students who are recalling a passage for examination purposes because they may end up not recalling certain information that their teachers may regard as crucial.

The assumption for the final hypothesis, the reconstruction hypothesis, is that the rememberer’s schema facilitates the text reconstruction process (Anderson & Pearson, 1984, p. 58). Anderson and Pearson explain that a person generates inferences about a passage based on his schema and aspects of the passage that can be recalled. For instance, when recalling a passage referred to earlier on about the two boys who skipped school from the perspective of a burglar, the rememberer would have inferences such as that the burglar stole from a middle-class family. This inference seems to have been determined by the descriptions given in the passage about the home that was burgled. Also bearing in mind that a burglar is more or less interested in items

that are valuable, portable and concealable, the rememberers assumed that items such as a food processor, a colour TV, a camera, a chain saw, a sewing machine or a stereo might have been amongst the stolen items from the house even though the passage only mentions a colour TV (Anderson & Pearson, 1984, p. 58). It is possible for the rememberer to include any of the above mentioned items in his recall as being amongst the items that went missing from the house because of his expectations of what one can find in a middle-class family's home. Expectations or schemata therefore influence correct as well as incorrect recall. The reconstruction hypothesis may however be criticized for the viewpoint that expectations or schemata may influence incorrect recall, because a teacher, for instance, who gives his students the task of recalling a passage, expects them to recall it correctly and not incorrectly otherwise incorrect recalls may have an impact on the success of a lesson.

1.9.5 Schemata and attention

Schemata play a significant role in learning and memory as shown in the previous section. They also play a role in making a reader or listener pay attention to certain parts of information (text elements) in a text. This section therefore focuses on the relationship between schemata and attention. This is another important section in this thesis because it is assumed that both schemata and attention play a role in the way participants recall stories presented through various modes (aural and/or visual).

Anderson and Pearson (1984, p. 52) explain that a reader is more likely to remember and learn information from text that they consider to be important. When reading a text, readers pay more attention to such information and as a result they end up remembering it. For instance, when readers are assigned different perspectives as shown in the story about two boys who skipped school (see previous section), they pay attention to information in line with the assigned perspectives when reading or listening to the story. This demonstrates that there is a relationship between schema and attention and this relationship contributes to the comprehension of text. In view of this relationship, Anderson and Pearson (1984, p. 38) created the selective attention model to explain how readers selectively attend to important elements. This model tries to explain how a newly presented schema is processed and stored, and that the whole process involves three steps (Anderson & Pearson, 1984, p. 38). The first step is that a reader judges the importance of information in a text. The reader does this through the following: the schema to

which the text is being assimilated, already-processed text information and an analysis of task demands. The second step is that as each piece of information is encountered it is processed to some minimum level and then grouped in terms of importance. The last step is that those pieces of information that are classified as important are given more attention than the rest of the parts; as a result such parts of information are learned better and remembered better. Regarding this, Anderson and Pearson (1984, p. 38) state that “[b]ecause of the extra attention they receive, important text elements [that is, important parts of information] are learned better; because they are learned better, these text elements are also remembered better.”

There are some empirical studies that support the selective attention model and others that do not as demonstrated towards the end of this section. One study that supports the selective attention model, was conducted by Rothkopf and Billington (1979). Participants in this study were high school students who read a passage with selective attention, that is, the students were required to pay attention to certain parts of information in line with learning objectives given. They were asked to memorize and study the learning objectives before reading a passage. The results of this study show that students who were given the learning objectives before reading the passage spent more time on sentences that were related to the learning objectives compared to students who were not given the learning objectives. The results further demonstrate that the students who were given the learning objectives spent less time on sentences that had no connections to the learning objectives. Additionally, Rothkopf and Billington followed the eye patterns of the readers who were given the learning objectives before reading the passage and found that the patterns were consistent with the reading time spent on individual sentences. The results also show that the participants learned and remembered more information related to the objectives than information that was not related to the assigned objectives. According to Anderson and Pearson (1984), the results of this study confirm the selective learning hypothesis as the readers paid more attention to sentences that were relevant to the objectives. This means that the participants assimilated the schema they got from the learning objectives to the information read in the text and regarded this information as more important and as a result learned and remembered it better.

Further support for the selective attention model comes from a study conducted by Goetz, Schallert, Reynolds and Radin (1983). The aim of this study was to examine the reader’s

perspective on the allocation of attention. Participants in this study were policemen, people in training to be real estate agents and college students. While reading the story about what two boys did at one boy's home on a day after they had skipped school, the participants were instructed to take the perspective of a burglar, a person interested in buying a home or no particular perspective. The results of this study confirm the findings that the readers' perspective influences the type of information that is recalled from a passage or story (Anderson & Pichert, 1978; Grabe, 1979; Pichert & Anderson, 1976) (the previous section also reports on a study that used the same story with the same perspectives, however the focus in that section was on schemata and remembering while the focus here is on schemata and attention). In Goetz et al.'s study (1983), the participants spent more time reading sentences that contained information related to the schema activated by their perspective than on sentences that did not. They also spent more time reading sentences that contained information related to their profession as policemen or estate agents.

However, a study that Britton, Meyer, Simpson, Holdredge and Curry (1979) conducted does not support the selective attention model. Participants spent the same amount of time reading a paragraph with important information and a paragraph with unimportant information. According to the model, participants were expected to spend more time reading a paragraph with important information because they require more time when processing such information. Regarding this finding, Britton et al. (1979, p. 503) explain that

[a] selection hypothesis for this effect proposes that when the information is perceived as important, the reader selects it for additional processing at the time it is being read. This theory would be supported if the information were read for a longer time when it was high in the content structure than when it was low, or if information high in the content structure used more cognitive capacity while it was being read.

However, participants managed to recall more information from the paragraph that contained important information than the one that did not. The reason for such differences in recall, according to Britton et al. (1979, p. 496), is attributed to a memory process and they conclude that such results are consistent with their hypothesis that an increase in recall is caused by "processes occurring at retrieval".

The selective attention hypothesis may also be criticized because attention processes do not necessarily need schemas. Attention processes may be affected by other factors such as a reader or listener's interest in the text at hand (Celsi & Olson, 1988), a reader or listener's motivation (Celsi & Olson, 1988), linguistic cues in the text (Izumi, 2002; Lorch, 1989; Spyridakis & Standal, 1987) and size or length of the text, among other factors (Keenan, Betjemann & Olson, 2008). Besides this, schema-based attention is merely considered as one type of attention from the list such as spatial attention, object-based attention, automatic and controlled attention (see Johnston & Dark, 1986, for more details).

1.9.6 Strengths and limitations of the Schema Theory

1.9.6.1 Strengths of the Schema Theory

Schema theory has been credited for the role it plays in attributing the knowledge the reader has of the overall structure of stories referred to as “story schemata” (see section 1.9.7 and in particular 1.9.7.4 for more details). Story schemata help a reader in terms of expectations about how a story will progress, that is, what sort of information to expect in the story (predictions) (Mandler & Johnson, 1977, p. 112). Because schemata are situational and socio-culturally dependent (see section 1.9.7.4), some readers may supply more information than others from their schemata and, as a result they establish coherence of the text and in the end comprehend it. Anderson, Reynolds, Schallert and Goetz (1977, p. 369) acknowledge the importance of knowledge structures (schemata) that a reader brings to the text and they explain that without these knowledge structures comprehension is not possible. The importance of schemata is addressed by Rumelhart (1981, p. 22) who has identifies three reasons why a reader fails to comprehend text:

- a. a reader does not have proper schemata
- b. a passage does not provide enough clues to activate the schemata that a reader possesses
- c. the schemata that a reader brings to the text are different from the ones intended by the author

This implies that for comprehension to be successful readers should have proper schemata about, among other things, events, actions and characters contained in the text in order to comprehend

it. The reasons given above would also be used to explain why readers fail to retrieve what they have read. As discussed in sections 1.9.2 to 1.9.5 (refer to section 1.9.7.4 for further details), schemata do not only facilitate encoding but retrieval of stories or text as well, and literature provides evidence that information is retrieved successfully through the assistance of schemata (e.g. Mandler, 1978; Mandler & Johnson, 1977).

1.9.6.2 Limitations of the Schema Theory

Although schema theory is supported by several studies, it has been subject to criticism. Criticisms range from the vague definitions that theorists use for the term “schema”, the use of stimulus materials (e.g. texts) that have been called “bizarre” in the sense that they are ambiguous and it is difficult for readers to follow the plotline, and the use of perspective studies (refer to section 1.9.3 for more details about perspective studies) to demonstrate the schema processes of selection and retrieval. Most of the criticism of the schema theory has been made on the basis of interpretive and methodological grounds (Alba & Hasher, 1983; Nassaji, 2002; Sadoski, Paivio & Goetz, 1991).

In this section, I review some of these criticisms. Even though the current study does not address any issues raised in the criticism, it does make a contribution to the development of schemas; an area that was not addressed by traditional schema studies which targeted mature participants. My study targets African participants between the ages of 10 and 12 who speak an African language while traditional schema studies targeted mature non-African participants, in particular college students. Furthermore, since my study uses westernized stories, it is possible that speakers of African languages (L1) may not have the appropriate schema for such stories.

1.9.6.2.1 The issue of definition

There is not any fixed definition of the term “schema” (Alba & Hasher, 1983); this has been reflected in section 1.9.1 which includes different definitions of the term “schema”. Many theorists describe schemas differently in terms of features, structure and function (Sadoski, Paivio & Goetz, 1991). Sadoski et al. explain that theorists often rely on metaphorical definitions. For instance, they point out that theorists have defined the term “schema” in terms of “frameworks” with “slots” to be filled and they have further defined it “as analogous to a play; that is, a general schema is to an instantiated schema as the script of a play is to a particular performance” (Sadoski et al., p. 466). Theorists have chosen their own metaphors to explain the

same notion of schema, metaphors which are not uniform at all. As a result, several problems have arisen. Additionally, Sadoski et al. point out that some of the definitions that theorists have used were created in terms of comparisons to something else, for instance, comparison to frames or stereotypes (Minsky, 1975), scripts or plans (Schank & Abelson, 1977), event chains (Warren, Nicholas & Trabasso, 1979), expectations (Tannen, 1979) and story grammars (Mandler, 1984).

Furthermore, Sadoski et al. (1991, p. 466) argue that the fact that theorists use several terms and different and conflicting metaphors to describe the same phenomenon suggests that the basic nature of schemata has been misunderstood. However, one may argue that having the same phenomenon explained or defined in different ways is not a sign of a misunderstanding of the basic nature of schemata. What theorists or critics of schema theory need to consider is that it is difficult to have one clear-cut definition for the term schema because people have different experiences, history, culture, religion, etc. As a result, variations may arise when explaining or defining the concept “schema”. Furthermore, different definitions of schemas reflect different types of encoding processes for different types of events.

1.9.6.2.2 Bizarre texts

Even though studies within a schema-theoretic perspective provide relevant evidence for the role of inferences in comprehension (Anderson & Pearson, 1984; Anderson, Renolds, Schallert & Goetz, 1977; Bransford & Johnson, 1972; McKoon & Ratcliff, 1986; Meurer, 2009; Nassaji, 2002), some of these studies have been questioned on empirical grounds. Sadoski et al. (1991, p. 469) have questioned these studies in terms of validity and generalizability of the findings. In the first place, Sadoski et al. argue that many schema-theoretic studies rely on text passages that are “bizarre”. They call these passages “bizarre” because they seem to be ambiguous and contain only a few or no concrete referents (McVee, Dunsmore & Gavelek, 2005, p. 538). Examples of such passages are the two ambiguous texts that Anderson, Reynolds, Schallert and Goetz (1977) used in their studies. The passages were constructed in such a manner that they provided two possible interpretations. The first passage they constructed could be interpreted as being about a prison break in which a convict plans his escape from prison or about a wrestling match in which a wrestler tries to break the hold an opponent has on him. The second passage could be interpreted as being about a group of friends coming together to play a game of cards or a rehearsal session of a woodwind ensemble. Sadoski et al. (1991, p. 470) question the option of

the ‘either-or interpretations’ of the texts used in Anderson et al.’s study (for example, a text passage either being about a prison break or a wrestling match). They argue that it is unlikely for one to read text that is completely explicit (that is, text that presents every bit of information and does not require readers to make inferences) and also text that offers a reader the either-or interpretations, “text with a normal degree of clarity and explicit reference is not subject to the either or interpretations” (Sadoski et al., 1991, p. 470).

According to Sadoski et al. (1991), recall was so poor because the passages used, for instance in Anderson, Reynolds, Schallert and Goetz’s (1977) studies, did not contain explicit and concrete referents. Nassaji (2002, p. 449) has attributed the poor recall of the passages not only to the fact that the participants were given passages that were “textually poor”⁹ but also the fact that there was “no context”¹⁰ for these passages. Sadoski et al. (1991, p. 470) report that when Anderson et al.’s (1977) study was replicated, the results showed some improvements in the participants’ recall. These replications portray that “adding disambiguating titles or clarifying language used in the texts” leads to a “significant effect on interpretation that is independent of the subject’s background” (Sadoski et al., 1991, p. 470).

1.9.6.2.3 Perspective studies

Further criticisms raised by Sadoski et al. (1991, p. 470) concern the use of studies (refer to Anderson, Pichert & Shirey’s (1983) study) discussed in section 1.8.4 on schemata and remembering) in which participants were assigned perspectives in order to demonstrate the schema processes of selection and retrieval. The results of this study indicate that reading a passage referred to in section 1.9.3 about two boys who had skipped school from the perspective of a burglar is more memorable than reading it from the perspective of a home-buyer. Anderson, Pichert and Shirey (1983, p. 274) explain that such results may be because college students are not familiar with information related to buying houses but have prior knowledge about burglaries from novels and television. However, this has been challenged by a study conducted by Grabe

⁹ In order to understand what a “textually poor” passage is, I provide features of a “good” text taken from McNamara, Kintsch, Songer and Kintsch (1996, p. 2). A good text has the following features: it contains content that is clarified and elaborated, it includes background information and explains causal relations, it contains anaphoric referents, connective ties that help to establish coherence of a text. Finally, it does not use ambiguous terms or structures.

¹⁰ Background information was not supplied.

(1991) who found that undergraduate students are able to write an essay on factors that one should consider when buying a house. One does not need any experience in home buying to know that houses with rotting roofs and moldy basements are not worth investing in.

There has also been criticism in relation to the selection process in schema theory (Sadoski et al., 1991, p. 472). According to schema theory, schemas are said to be responsible for which types of information are selected for encoding. In addition, schemas enable a reader or listener to focus his attention on certain information in the text. Schemas moreover provide a framework with slots that require filling. Furthermore, schemas are responsible for inferences that are generated by default, especially in cases where text is not explicit. What is implied here is that in the perspective studies, the assigned schema (i.e. the schema that is determined by the perspective assigned to participants before reading) permitted only the encoding of information that filled those slots that are part of the respective schema. This means that information that did not fill the relevant slots was not encoded and was not available for later recall. However, Sadoski et al. (1991, p. 472) report that participants in the perspective studies were able to recall previously unreported information not related to their assigned perspective in the delayed recalls that took place after two weeks. They argue that if participants were able to recall additional information, it means that it was encoded and stored in long-term memory without being governed by the assigned perspective.

Irrespective of these criticisms, schema theory is one of the theories that have made a remarkable contribution to L1 and L2 reading and listening comprehension. For instance, both L1 and L2 listeners and readers need to use their prior knowledge or schema or expectations to interpret text and to make predictions about the information they are about to hear or read. Schemas in their different forms have an important role to play in text comprehension as will be shown in the sections that follow.

1.9.7 Different forms of schemas

In this section, I discuss the following different forms of schemas: “frames”, “scripts”, “event chains”, “story schema” and “expectations”. It is worth noting that these different notions of schemas are not the same as they display important differences. However, they are not completely different as they share some significant features. Carrell (1983, p. 81) argues that

besides the differences that exist amongst the schema-theoretical orientations¹¹, the different notions of schemas “share some fundamental assumptions and yield some of the same important insights into comprehension”. For instance, there are similarities in the way events are represented in a “script” and “event chains”. Furthermore, the way event sequences are represented in a “frame” is similar to the way they are represented in a “script”. Besides this, discussions of both terms recognize the importance or relevance of our expectations of situations in text comprehension and this therefore creates some links to “expectations” as another notion of schema.

Overall, schema (whether in the form of “frames”, “scripts”, “event chains”, “story grammar” or “story schema” and “expectations”) is said to play an important role in text comprehension both in the L1 and L2 context (Bransford & Johnson, 1973; Carrell, 1984a, 1985, 1987, 1988; Carrell & Eisterhold, 1983; Grabe, 1991; Sanford & Garrod, 1981; Schank & Abelson, 1977). Carrell (1985) reports the findings of Singer and Donlan’s (1982) study that shows the effects of readers’ knowledge on comprehension of short stories. In this study, the readers that were taught the schema for simple stories as well as a strategy for asking schema-general and story-specific questions to guide their interaction with the text, performed well in the tests that assessed their comprehension. It can be concluded that a reader (regardless of whether reading is taking place in L1 or L2) who is not familiar with content schema or a reader who does not have a story schema may have some problems in understanding a text (Grabe, 1991).

1.9.7.1 Frames

The notion of “frames” has been discussed by researchers from different disciplines, including Bateson and Frake (anthropology), Hymes and Goffman (sociology), Minsky (artificial intelligence) and Fillmore (linguistics). Bateson introduced the term “frame” in 1955 and used the term to explain an individual’s conceptual view of particular situations. However, a question worth considering is: Do these frames enable different individuals to look at situations in the same way? The answer is ‘yes’ if different individuals share some of the following: a similar background, world knowledge, beliefs, customs, etc. If the individuals do not share any of these, then they would not be able to look at situations in the same way. Our choices of frames help us

¹¹ These different notions of schemas are referred to as “schema-theoretical” orientations according to Carrell (1983).

to focus on certain aspects of a talk or a speech especially when these aspects are in line with our knowledge, beliefs or customs while at the same time make us ignore other aspects that are contrary to our knowledge, beliefs or customs.

Minsky (1975), on the other hand, defines the term “frame” as a “data-structure for representing a stereotyped situation” (p. 212). His interpretation of the term “frame”, according to Bednarek (2005, p. 689), is that it denotes “a mental representation of our knowledge of the world, a data-structure that is located in human memory and can be selected or retrieved when needed”. Minsky (1977, p. 355) regards a frame as “a network of nodes and relations”. This network of nodes and relations is structured as different levels, namely the fixed top levels and the lower levels. The fixed top levels represent those components of a situation that are always true whereas the lower levels are considered to have many terminals or “slots” “that must be filled by specific instances or data” (Minsky, 1977, p. 355). Minsky explains that these specific instances or data can also be regarded as smaller sub-frames. According to Bednarek (2005, p. 689), these specific instances or data are required to “fulfill certain conditions given by the terminals through what Minsky calls markers”.

According to Minsky (1977, p. 355), knowledge is stored in our memory in a very large number of frames and frame-systems; in other words, human beings have “collections of related frames” in their memory. Minsky provides different examples of frames, such as a bedroom frame, a hospital frame and a school frame, that human beings might have. Each of these frames consists of certain typical features. For instance, the bedroom frame may have features such as bed, lamp, and bedside table. When we enter a bedroom that we have never seen before, a selecting and matching process begins (Bednarek, 2005, p. 689). First of all, a frame is “evoked on the basis of partial evidence or expectation” (Minsky, 1977, p. 359). After this, as explained by Bednarek (2005, p. 689),

[...] we compare the new experience (the particular bed-room) to this selected frame ([BED-ROOM]) and finally, we assign features of this new experience (a particular bed, lamp, bed-side table, etc.) to the frame’s terminals (depending on whether the features satisfy the conditions governing their assignments).

Minsky's frame theory has been challenged because of its "fuzziness" and has been considered "incomplete and fragmented" (Bednarek, 2005, p. 690). Bednarek (2005, p. 690) explains that in most cases, Minsky "relies on the power of his hypotheses as well as on the reader's power of imagining the cognitive actions he proposes". Despite these limitations, Minsky's frame concept plays an important role in the field of text comprehension. Bednarek (2005, p. 693) states, "our frames for non-linguistic phenomena in the world contribute much to the coherence of discourse". She illustrates this using some examples of texts about rugby and cricket game. She demonstrates how our frames for a rugby and cricket game play a role in our understanding of a text about these two games (see Bednarek, 2005, p. 693 for more details).

We now turn our attention to Fillmore's (1975, p. 124) notion of the term "frame" in relation to "scenes". His definition of the term "scene" takes into account "visual scenes ... and, in general, any kind of coherent segment of human beliefs, actions, experiences or imaginings" (Fillmore, 1975, p. 124). His definition of the term "frame", on the other hand, is that it is "any system of linguistic choices [...] that can get associated with prototypical instances of scenes" (Fillmore, 1975, p. 124). His frame-scene analysis can be helpful in clarifying certain fuzzy areas of linguistics¹². If people associate certain scenes with certain linguistic choices (frames), then there is a possibility of seeing clear-cut boundaries in terms of when one linguistic choice represents one scenario and when another represents a different scenario. Fillmore's frame-scene analysis has been credited for its contribution in these three areas: analysis of discourse, acquisition of word meaning and the boundary problem for linguistic categories. Furthermore, Fillmore's frame-scene analysis is relevant when one is reading or listening to a text. The relevance of Fillmore's frame-scene analysis in reading or listening comprehension is summarised in the quotation below.

[T]he first part of a text creates or 'activates' a kind of schematic or outline scene, with many positions left blank, so to speak; later parts of the text fill in the blanks (or some of them, anyway), introduce new scenes, combine scenes through links of history or causation or reasoning, and so on (Fillmore, 1975, p. 125).

¹² Bednarek (2005, p. 692) considers "coherence" as a fuzzy area in linguistics. She argues that there is no generally accepted definition or theory of coherence. Bednarek (2005, p. 692) thus uses the frame concept to explain "the relation between text, context, world knowledge, and coherence".

According to Fillmore (1975), to interpret a text requires a process of activating a schematic scene, filling in information that has not been made explicit in the text using information that is already there in the other parts of the text or background knowledge. He also explains that when individuals are reading a text, they have their own expectations of what they will find in the text. These expectations may be fulfilled or not (Tannen's "structures of expectations" has also been referred to as "frames", see section 1.9.7.5 for more details). But above all, an individual creates his own mental representation of the world. Regarding this, Fillmore (1975) says that "a person, in interpreting a text, mentally creates a partially specified world; as he continues with the text, the details of this world get filled in; and in the process, expectations get set up which later on are fulfilled or thwarted, and so on" (p. 125).

Table 1.3 Overview of the use of the term frame (Adapted from Bednarek, 2005, p. 686)

Researcher	Minsky, 1977	1975, Fillmore, 1977	1975, Fillmore, 1982	Tannen, 1979, 1993
Definition	"a data-structure for representing a stereo-typed situation" (1977, p. 355)	"any system of linguistic choices that can get associated with prototypical instances of scenes" (1975, p. 124)	"a general cover term for the set of concepts variously known [...] as "schema", "script", "scenario"" (1982, p. 111)	"Structures of expectations" (1993, p. 16)
Structure	Top levels, lower levels with terminals ("slots") filled with default assignments (1977, p. 355)	Schematic frames with blanks (1977, p. 72)	An abstract structure of expectations with roles, purposes, sequences of events (1982, p. 117)	Organised knowledge in form of expectations (1993, p. 21)
Typical characteristics	Cognitive/mental	Linguistic	Cognitive/mental	Cognitive/ mental
Types	Syntactic, semantic, thematic, narrative frames.	Collections of words, grammatical choices, linguistic categories	Interactional frames, cognitive frames	Events, objects, people, levels: context, communicative activity, content

From the discussion above, it can be seen that there is no “unified” frame theory with specific terms and definitions. As a result, this has led to “terminological confusion” because the frame concept has been “associated and linked with different, though related phenomena” (Bednarek, 2005, p. 688). This confusion has also led to the coinage and usage of other terms such as script, event chains, story schema and structures of expectations to refer to the notion of frames. Table 1.3 (see above) presents the different ways researchers have interpreted the notion of frames.

Even though there is no “unified” frame theory, according to Bednarek (2005, p. 688), the frame theory has gained widespread acceptance among linguists who concentrate on various aspects of the frame phenomenon, for example, lexicography and the relation between frames and meaning (Raskin, 1984), frame semantics and its role in linguistic frame theory (for example, researchers such as Fillmore, 1975, 1977, 1982; Raskin, 1984; Tannen, 1979, 1993), the frame concept and its role in discourse analysis (for example, Brown & Yule, 1983) and finally frames and verbalization (Chafe, 1977).

1.9.7.2 Scripts

A script, is defined by Schank and Abelson (1977, p. 41) as a “structure that describes appropriate sequences of events in a particular context”. In other words, a script consists of sequences of events according to our expectations of situations. Situations that individuals find themselves in can be described in appropriate sequences in line with their world knowledge and specific knowledge. Scripts, like schemas, help individuals to use their knowledge to set up expectations about what will happen next. The same knowledge will enable them to relate details to a general pattern and infer information that has not been explicitly provided. According to Schank and Abelson (1977), individuals have scripts for different social situations such as eating in a restaurant, travelling in a bus, attending a birthday, and so on. A script is said to follow a logical order. This means that individuals have scripts stored in their memory following a logical sequence. Hence scripts, like frames (as shown in the previous section) and story schemas (see section 1.9.7.4) help one to narrate a coherent story.

Schank and Abelson (1977, p. 41) also explain that a script consists of “slots and requirements about what can fill those slots”. Fillers for slots are determined by the current series of events that a speaker wants to comprehend or describe as well as their prior knowledge or experiences. We are therefore able to fill in information that has not been given to us in a story because our

scripts enable us to do so. Using the restaurant script example from Schank and Abelson (1977, p. 47): “John went to a restaurant. He ordered chicken. He left a large tip”, we are able to infer that while at the restaurant, John “sat down”, “read the menu”, “ate the chicken”, “paid the check” and “left the restaurant” because this is a normal sequence of events when one is at a restaurant.

Nelson (1996) regards knowledge about events organised as scripts as a powerful form of mental representation because it helps children organise their memory and knowledge of the world. Findings from research conducted by Nelson and her colleagues demonstrate that very young children can develop scripts for events and also use such scripts when comprehending and recalling stories (Hudson & Shapiro, 1991; Hudson & Slackman, 1990; Shapiro & Hudson, 1991; Slackman & Nelson, 1984). In particular, research findings demonstrate children’s ability to use scripts when organising events about everyday contexts (birthday parties, going to the doctor) and also when processing and recalling information from television and film. Regarding the latter, Collins, Wellman, Keniston and Westby (1978) studied second, fifth and eighth grade children’s recall of a televised dramatic narrative. Children were assigned to different conditions such that one group watched a canonical version (Collins et al. use the concept ‘canonical’ to refer to the televised dramatic narrative that had scenes that followed a predictable or familiar routine of crime, investigation, chase, arrest and court) while another group watched a non-canonical, jumbled version. The results show that second grade children’s performance was poor when recalling the jumbled story but their performance was better when the television programme featured a predictable routine. However, only the eighth graders recalled the canonical version accurately, but still struggled to recall the non-canonical version.

Collins and Wellman (1982) reanalysed the same data from their 1978 study referred to above and the results reveal that younger children relied on familiar scripts rather than programme-specific information when recalling information and predicting what would happen next. A similar study was conducted by Low and Durkin (2000) who examined first, third, fifth and seventh graders using similar stimulus materials to those used by Collins et al. (1978). The results evince that it was the children who viewed the canonical version that were able to recall more story units than the children who viewed the jumbled version. The results further reveal that the recalls of the children who viewed the canonical version were more accurate than the

recalls of the children who viewed the jumbled version. Additionally, the results suggest that young children relied on their knowledge from scripts in order to reorder the story units in the jumbled version.

The studies summarised above used television programme material from a police drama series that contained scenes about crime, investigation, chase, arrest and court, and one may question the suitability of showing crime scenes to children as young as 5 years old. Besides this, these studies examined children who are mother tongue speakers of English. There is surprisingly little discussion about how speakers of African languages use knowledge from scripts to comprehend and recall stories. It would be interesting to see research of a similar nature conducted on (bilingual/multilingual) African children. My study involves multilingual children recalling stories that may not be familiar to them, in other words, the stimulus materials may not feature predictable or familiar routines to these children. It would therefore be enlightening to see how children's unfamiliarity or familiarity of scripts affects their processing and recall of information presented through different media (visual and/or aural – see Chapter 3, section 3.5, for more details).

1.9.7.3 Event chains

“Event chains” are a subtype of schemata that were developed because they represent directly a logical structure of a story. The term “logical structure” in this context means a structure that maintains a logical flow of events in a narrative. The logical structure of a story is sometimes guided by temporal and chronological dimensions. The way events are represented in event chains is similar to the way they are represented in a script. They are also organised by causal links that are either made explicit or implicit in the story. When they are not made explicit, a reader infers the causal links because they are necessary for story comprehension. However, event chains differ from scripts in that they are “not patterned after an internalized story structure or a single-protagonist episodic structure” (for example, crime, investigation, chase, arrest and court, Tierney & Mosenthal, 1980).

Warren, Nicholas and Trabasso (1979, p. 24) illustrate the event chain using the following brief story about a “shoelace”.

- a. It was Friday afternoon.

- b. Carol was drawing a picture in the classroom.
- c. David felt mischievous.
- d. David decided to tease Carol.
- e. When Carol was not looking,
- f. he tied her shoelaces together.
- g. Carol tripped
- h. and fell down

The event chain for the above story is represented in Figure 1.3. The events are represented as a string of numbered propositions with a number in brackets indicating a focal event¹³.

a b c (d) e f g h

Figure 1.3 Representation of an event chain for the “shoelace” story with eight propositions. Proposition (d) represents the focal event for this story (Adapted from Warren, Nicholas & Trabasso, 1979, p. 24).

An event chain representation, according to Warren, Nicholas and Trabasso (1979)¹⁴, denotes several broad categories of events such as “states”, “events”, “actions”, “cognitions”, “displays”, “impulses” and “goals”. Table 1.4 below presents these categories of events and their descriptions. For example, in the “shoelace story” above which is illustrated in Figure 1.3 in the form of propositions, proposition (a) denotes a state, proposition (b) denotes a state, proposition (c) denotes an impulse, proposition (d) denotes a goal, proposition (e) denotes a state, proposition (f) denotes an action, proposition (g) denotes an event and proposition (h) denotes an event. An event chain representation also denotes different types of logical connectives such as motivation, physical cause, psychological cause, enablement, temporal succession and temporal coexistence. These logical connectives are not discussed in this thesis because they are linked to inferences¹⁵ and inferences are not part of the focus here.

¹³ A focal event is a complicating action.

¹⁴ Besides their formulation of event chains, Warren, Nicholas and Trabasso (1979) propose a taxonomy of inferences. However, these inferences are not discussed in this thesis because they do not form part of its focus.

¹⁵ A listener might make inferences within and across event chains.

Table 1.4 The types of propositions specified in an event chain representation of a story (Adapted from Warren, Nicholas & Trabasso, 1979)

Type of proposition	Description
State	An objective condition of the world environment, of the protagonist, or of another character. “States” may exist either independently of or as the result of a protagonist’s “action”.
Event	An objective occurrence or an action by another character. “Events” may occur either independently of or as the result of the protagonist’s “action”.
Action*	A voluntary external movement or behavior on the part of the protagonist.
Cognition*	A mental act; a voluntary internal occurrence or self-induced state on the part of the protagonist. It is signaled by verbs such as “thought”, “remembered”, “imagined”, “perceived”, “judged”, etc.)
Display**	An involuntary external movement or behavior on the part of the protagonist.
Impulse**	An involuntary internal occurrence or state of the protagonist. It is signaled by verbs such as “felt”, “intuited”, “dreamt”, “hallucinated”, “believed”, etc.).
Goal	A voluntary or involuntary internal goal held by the protagonist, a state of desiring that a certain occurrence should happen or condition should exist. It is signaled by verbs such as “decided”, “planned”, “wanted”, “desired”, etc.

* “Action” and “cognition” are also known as “responses” when motivated.

** “Display” and “impulse” are also known as “reactions” when caused.

According to Tierney and Mosenthal (1980, pp. 37-38), there are several advantages that are associated with event chains theory. The first advantage is that “an event chain analysis is not restricted to a single protagonist situation” (Tierney & Mosenthal, 1980, p. 37). For instance, when we consider the single protagonist episodic structure of a script, everything concerning this structure (for example, crime, investigation, chase, arrest and court) affects or revolves around a single protagonist. The second advantage is that event chains theory does not single out one framework or model that is applied to all narratives as in the story grammar model (see the next section for more details). This is because narratives focus on different events. An event chain analysis for one narrative may therefore not be applicable to another narrative. The third

advantage is that a researcher is not required to analyse the whole text in order to do an event chain analysis, a portion of a text is sufficient.

Despite these advantages, event chains theory has been criticized for restricting the structural analysis to the events within a story and in so doing “an event chain formulation fails to address the influence of variant reader purposes” (Tierney & Mosenthal, 1980, p. 37). The assumption from the event chains theory is that readers have similar purposes across different texts and reading situations. Finally, because event chains theory only focuses on a logical structure of events, it does not consider elements of a story such as setting and conflict resolution, which are emphasised in other forms of schemas such as story grammar. However, besides all these limitations, event chains theory needs to be credited for the utility when examining the logical structure of events, especially “given the difficulty some readers often have in disambiguating narrative involving multiple protagonists, it may prove beneficial to have readers map the chain of events within the episodic structure of complex narratives” (Tierney & Mosenthal, 1980, p. 38).

Event chains are relevant in this study because participants are assessed for [re]telling a story in a logical order. For instance, for a participant to get the maximum score of 5 in element 6 (cohesion), his [re]telling has to contain events that follow a logical order. The [re]telling also has to include critical events while placing less emphasis on minor events. Finally, the [re]telling has to provide smooth transitions between events (see the scoring criteria in Appendix 11 for more details).

1.9.7.4 Story grammar¹⁶ and story schema

Mandler (1984, p. 18) defines a story grammar as a system of rules used for describing the typical features that are prevalent in narrative texts. A story schema, on the other hand, is the mental representation that readers have of the parts of a typical story and their relationship (Mandler & Johnson, 1977). Story schema is used for investigating the internalized story elements and for testing the processes involved in story comprehension. A story grammar is

¹⁶ Story grammar is also known as a specific type of formal schema. Formal schema theory has a great impact on understanding reading as well as listening comprehension. Formal schema, which is also known as textual or rhetorical schema, refers to background knowledge that individuals have about the organisational forms and rhetorical structures of written texts. This includes background knowledge about different types of texts (for instance, descriptive, narrative, expository and argumentative) and genres (for example, fictional and factual).

therefore not identical to a story schema. On the differences between a story grammar and a story schema, Mandler (1984, p.18) states:

[a] story grammar is a rule system devised for the purpose of describing the regularities found in one kind of text. The rules describe the units of which stories are composed, that is, their constituent structure, and the ordering of the units, that is, the sequences in which the constituents appear. A story schema, on the other hand, is a mental structure consisting of sets of expectations about the way in which stories proceed. The close connection between a story grammar and a story schema arises from the fact that the story schema is a mental reflection of the regularities that the processor has discovered or constructed through interacting with stories.

The difference between story grammars and story schemas is accordingly that the former deals with the “concrete” while the latter deals with the “abstract”. This is because story schemas do not have physical referents and they are in this case regarded as “domain representations of text” while story grammars have physical referents and they are “representations of text containing information about global (macro-structural) features of text, which interact with local (micro-structural) text features” (Tappe & Hara, 2013, p. 300). In Mandler’s (1984, p.18) line of thinking, story grammars are concrete rule systems that are employed to describe regularities in the structure of stories.

Although the notion of story grammar was popular among anthropologists in the early 1900s, it was the work of Mandler and Johnson (1977), Thorndyke (1977) and Stein and Glenn (1979) which succeeded in creating rules and models for analysing, assessing and teaching narrative structure. The model which Stein and Glenn (1979) developed highlights two major elements: the setting and the episode. The setting consists of information about the setting of the story, characters and places. The episode may have six subcategories: initiating events, internal responses, plans, attempts, consequences or outcomes and resolution or outcome. The story grammar elements as identified by Stein and Glenn (1979) are summarised in Table 1.5.

Table 1.5 Story grammar according to Stein and Glenn (1979), summarised by Griffith, Ripich and Dastoli (1986, p. 541)¹⁷

Element	Definition
Setting	The spatial and/or temporal location where story events take place; the introduction of the main characters, the protagonist and the spatio-temporal context.
Initiating event	An event which typically introduces a state-of-affairs that is ‘out of the ordinary’ for the protagonist, i.e. the occurrence that influences the main character to action.
Internal response	An affective or emotive reaction to the initiating event. Indicates the thought(s), feeling(s) of the protagonist in response to the initiation event; may include an interpretation of the event, formulation of a goal and serves to motivate action.
Plan	A set of intentions formed in the mind of the person affected by the initiating event. Indicates the intended action of the protagonist (the announcement of the intended action).
Attempt	The protagonist’s effort to execute the plan. Indicates the overt actions of the protagonist in pursuit of the goal.
Consequences or outcomes	The (non-) attainment of the goal, or other events that are the result of the attempt.
Resolution or outcome	Any emotional or evaluative response by the protagonist to the preceding chain of events.

A reader or listener who has knowledge of the story elements presented in the table above will use this knowledge to predict the flow of the story he or she is reading or listening to. It is the same knowledge that helps him or her understand the story (Mandler & Johnson, 1977; Stein & Glenn, 1979). Above all, knowledge of narrative structure helps one to comprehend stories, retell stories and generate novel stories orally or in writing (Chasen, 1989; Duchan, 2004; Sisco, 1992; Smith, 1986).

¹⁷ This table has been adapted from Tappe and Hara (2013, p. 301).

Apart from Stein and Glenn's (1979) story grammar model, there are other models that were developed in the 1970s and 1980s. Even though these models display variations in form, they are remarkably similar. It is evident that most theorists agree that stories do not only begin with an orientation that introduces setting, characters and places and end with a formal ending device; they also contain an episode as shown in the story grammar model above developed by Stein and Glenn (1979) even though there may be variations in the naming of the stages in the episodic category (Hudson & Shapiro, 1991; Shapiro & Hudson, 1991; Stein, 1988; Stein & Glenn, 1982). Such variations led Anderson and Evans (1996) to streamline the story grammar model developed by Stein and Glenn (1979) into a more concise one they called the Canonical Story Grammar Model (CSG model) (see Table 1.6). In order to come up with this model, they analysed the similarities and differences between a wide variety of different story grammar models that were current and popular in the 1970s, 1980s as well as the 1990s. According to Tappe and Hara (2013, p. 302), the CSG model has since been used to "assess and evaluate narrative text structure in didactic contexts and for teaching text comprehension".

Table 1.6 The Canonical Story Grammar Model (CSG Model) (Anderson & Evans, 1996)¹⁸

Element	Definition
Setting	Introduction of the main character and description of the time, location and/or social context of the story.
Beginning event	A cause that initiates a reaction or response from the main character.
Internal reaction	An emotional response by the character that leads to the creation of a goal.
Attempt	An action by the character to achieve the goal.
Ending	(Non-) attainment of the goal by the character and/or the character's reaction to the outcome and/or a moral.

¹⁸ This table has been adapted from Tappe and Hara (2013, p. 302).

The CSG model (Anderson & Evans, 1996) and Stein and Glenn's model (1979) have been used to assess the narrative text structure of stories produced not only by children but also adults. This is because the two models are known to "capture a widely shared, intuitive understanding of what a 'well-structured' narrative structure looks like" (Tappe & Hara, 2013, p. 302). As a result, the presence of story grammar elements in a story is considered vital. The importance of the presence of story grammar elements in a story is demonstrated in a very recent study that Feltis, Powella, Snow and Hughes-Scholes (2010) conducted. Even though the focus in their study is on child witness accounts of child abuse, the results as outlined in the following quotation show that reports that gained credibility contain story grammar elements in a sequential order (Feltis et al., 2010, p. 408).

[...] The important role of story grammar is also demonstrated in studies showing the impact of this variable on listener judgements of the quality or believability of children's spoken narratives. Witness credibility is determined in part by the degree to which the witness' account is meaningful (Raskin & Esplin 1991) and objective measures of narrative completeness using the story grammar framework have been found to predict quality ratings of meaningfulness. For example, Newman and McGregor (2006) showed that higher listener quality ratings with respect to the meaning of children's narratives were associated with an increase in the number of story grammar elements reported. Further, Schneider and Winship (2002) demonstrated that when length of the narrative is controlled for, adult lay persons perceive narratives that contain formal story grammar elements to be better quality (i.e., to maximise comprehension) than those where story grammar elements are omitted. Witness credibility, in turn, impacts jury decision making [...] (Feltis et al., 2010, p. 408).

The use of story grammar elements in a story has not only been portrayed as important but also universally valid. Regarding the latter, research was conducted by Mandler, Scribner, Cole and De Forest (1980) in which they wanted to compare story recalls by participants with different cultural backgrounds. Participants in their study were groups of schooled versus unschooled Liberian participants, literate versus non-literate participants as well as American university students. The results show that children as young as six-years-old recalled stories in a similar

manner to adults. In addition, the Liberian participants produced story recalls that were structurally identical to recalls produced by American university students. These results therefore demonstrate similarities in the manner stories are recalled by participants from different cultures. On the basis of these findings, Mandler et al. (1980) conclude that there is a universal type of structure for stories (see also Tappe & Hara, 2013, p. 303).

Findings from other studies that Mandler and her colleagues have conducted (see for example Mandler & Johnson, 1977) demonstrate that stories that do not conform to the universal type of structure are not easy for either adults or children to recall. Their findings also demonstrate that it is not only the structure of stories that is universal but also the way stories are processed (Mandler & Johnson, 1977, p. 112). Mandler and Johnson therefore argue that story schema plays an important role during comprehension. They point out that

[t]he schema acts as a general framework within which detailed comprehension processes take place. This framework performs several functions. First, it directs attention to certain aspects of the incoming material. For example, statements in the setting of a folktale (in contrast to the modern mystery story) are always relevant to later events; they warn the listener that certain facts should be kept in mind. Second, the framework helps the listener keep track of what has gone before. It provides a summary that increases the predictability of what will immediately follow. Third, the framework tells the listener when some part of the story is complete and can therefore be stored, or is incomplete and therefore must be held until more material has been encoded (Mandler & Johnson, 1977, p. 112).

Mandler and Johnson (1977, p. 149) further indicate that the schema used to understand a story is adequate to effect accurate recall. From this, it can be said that story schema skills are associated not only with the comprehension processes but also with successful recall of stories.

One may wonder just how universal the canonical narrative text structure is because there are some studies that have been conducted that have produced results that are contrary to Mandler et al.'s (1980) suggestion that the kind of story schema that is found across different populations may be a cognitive universal; one of these studies was conducted by Kintsch and Greene (1978). Participants in their study were American college students who were asked to summarise two

different stories, a Grimm fairy tale (Experiment I) and an Apache Indian story (Experiment II), that they had read. A summary of the results is outlined in the following quotation:

[...] Experiment I shows that readers write better summaries of stories for which they have an appropriate schema than for stories for which they lack a schema, and that this effect is related to the overall organization of the story and does not lie at the level of single sentences. Raters who judged the quality of the summaries found summaries from stories that corresponded to a familiar story schema more informative than those from stories for which they did not have an appropriate schema, even when the latter accurately summarized the story in question. In Experiment II, sequential recall of a story which deviated in various ways from the subjects' story schema resulted in poor performance: the stories tended to break up after a chain of five sequential recalls, in contrast to a well-structured, schema-based story that was usually recalled quite completely and without serious distortions (Kintsch & Greene, 1978, p. 1).

These results show that it was not easy for American participants to recall a story that was not familiar (experiment II) but they recalled a familiar story with great ease (experiment I). American college students found it more challenging recalling a story from a different culture (Apache Indian story) than their own (Grimm fairy tale). The results suggest that story schema is culture-specific; hence participants have difficulty recalling stories from different cultures.

Similar results that story schemas are culture-specific have also been documented in literature (Alptekin, 2006; Carrell, 1987; Carrell & Eisterhold, 1983; Erten & Razi, 2009; Jalilifar & Assi, 2008; Johnson, 1981; Li & Lai, 2012; Pritchard, 1990; Sasaki, 2000). The results thus far generally demonstrate a positive relationship between cultural familiarity and reading or listening comprehension. One study that reported such results was conducted by Erten and Razi (2009). They investigated whether cultural familiarity influences comprehension of short stories. In their investigation, Erten and Razi 'nativized' the story that they used for reading comprehension. They did this by changing the names of characters, places, streets and buildings from American to Turkish names. Besides this, they also changed some conceptual cues in order to ensure that the story had a Turkish-specific schema. For instance, the characters planned to eat fish in the nativized story instead of steak in the original story since the location of the nativized

story was a coastal city. The results of the study indicated that there was a better comprehension of the nativized story. The two groups of participants who read the nativized story produced higher scores in reading comprehension than the other two groups who read the original story. Similarly, findings in Sasaki's (2000) study indicate that participants who read a text with culturally familiar names performed better on a free recall task than those who read the same text with unfamiliar names.

Apart from a positive relationship between cultural familiarity and reading or listening comprehension, some researchers also report a positive contribution of cultural familiarity towards reading rate (that is, amount of time spent reading a passage). For example, Li and Lai (2012) examined the effects of cultural familiarity with a text on Chinese students' reading comprehension performance and reading time. Their study was divided into two phases. In the first phase, participants read a text that was culturally familiar and recorded the time they spent reading the passage. As soon as they finished reading, they completed a cloze test without referring back to the culturally embedded text. The procedure was the same in the second phase but they read a culturally unfamiliar text. The results show that cultural familiarity had an effect on Chinese students' reading comprehension performance and reading time. The students spent less time reading and comprehended better, text that was culturally familiar. According to Li and Lai (2012, p. 105), the students relied on "the facilitative role of background knowledge in reading so as to read in a faster and more efficient way". Their results suggest that a reader's cultural schemata have a positive impact on memory, reading comprehension, interpretation and reading time.

Tannen's (1979) results from studies she conducted on Greek and American participants also reveal contrary views to Mandler et al.'s (1980) suggestion that the kind of story schema that is found across different populations may be a cognitive universal. On account of such results, she describes another form of schema known as "expectations" which is discussed in the following section.

1.9.7.5 Expectations

Tannen (1979) discusses schema-like representations which she refers to as "expectations" (compare Ross' (1975) "structures of expectations" for a similar approach). Tannen defines the term "expectations" as the way in which our experiences of the world in a culture or a

combination of cultures help us organise knowledge about the world and also the way in which we use “this knowledge to predict interpretations and relationships regarding new information, events and experiences” (1979, p. 138). Tannen conceptualizes the notion of schema in this way after discovering that events that one can report about in a story are shaped by world knowledge and above all by one’s experiences in a given culture. Tannen concludes this after conducting experiments on Greek and American participants using the wordless “pear film”¹⁹ that was developed by Wallace Chafe²⁰. The film shows an apple farmer who is picking apples. A boy on a bicycle happens upon the farmer and secretly steals a large amount of the pears. Subsequently the boy has an accident with his bike and spills the pears. Luckily, three other boys witness the accident and help him collect the pears for which they are rewarded by receiving two pears each. While the pear thief continues his bike ride his saviors continue their walk and meet the farmer who in the meantime has detected the theft. However, he does not confront the boys who are eating pears as they walk past him.

The results of her study demonstrate that scripts, frames and schemas, shaped by our past experiences, can be interpreted as structures of expectations. She explains that these structures are reflected “in the surface linguistic form of the sentences of a narrative” (Tannen, 1979, p. 179). For example, Tannen’s participants expected some kind of confrontation when three boys who had been given a pear each by the “pear” thief went past the farmer (as the farmer had just discovered that some of his pears were missing). But what happened was contrary to the participants’ expectations. The farmer calmly watched the boys pass by eating his pears. This is portrayed in the following utterance by one of the participants: “[...] and he just kind of looks at them and [...] doesn’t do anything” (Tannen, 1979, p. 162).

Tannen (1979) explains that the use of linguistic forms such as “just” and “just kind of” implies that the participants expected more than what has been expressed in the utterance. Furthermore, she explains that the form “looks at them” which was uttered with a high pitch portrays that the participants were actually surprised that the man would not show any reaction. Finally, the form

¹⁹ See <http://pearstories.org>

²⁰ The pear film was designed by Wallace Chafe and his research team in the mid-1970 with an aim to investigate how the narration of a simple story varies from language to language (see Chafe, 1980, for further details).

“doesn’t do anything” demonstrates that the participants expected the man to do something such as shout “thieves!” or even grab one of the boys by the hand. A common expectation of such an encounter could be that there would be a physical confrontation but none of this happened.

Tannen (1979) also compared narratives produced by Greek participants with those narrated by American participants. She found out that they were different in terms of the different structures of expectations that were shaped by the participants’ cultures. For instance, stories narrated by American participants contained all and only the events as portrayed in the film. The way American participants recounted the events, according to Tappe and Hara (2013, p. 306), can be interpreted “as an attempt to provide as correct and complete an account as possible of the presented events”. On the other hand, Greek participants included in their stories events that were not present in the film and developed characters in their own way. They placed little emphasis on minor events that did not contribute to their storyline as depicted in the film (Tappe and Hara, 2013). According to Tannen (1979), the Greek participants narrated their stories in this manner in order to create an interesting story for their interlocutor. In other words, their aim was to narrate a story that was interesting and imaginative. In this case, it is possible that Greek participants regarded stories narrated by American participants as “boring and unimaginative” (Tappe & Hara, 2013, p. 306).

Tannen (1979) concluded from her findings that our perception of people, objects, events and the world in general is shaped by structures of expectations. These structures of expectations, when it comes to processing and comprehension of stories, help us to organise and alter the actual content of a story or a movie in many ways. Hence the results of Tannen’s study reflect different story schemas that individuals from different cultures have. American participants narrated stories that were in line with the event structure as depicted in the film while Greek participants appeared to have used their Greek story schema in order to re-conceptualize the events. In other words, stories narrated by American participants were in line with their Anglo-American schema while those narrated by Greek participants were shaped by their Greek story schema. Regarding this, Tappe and Hara (2013, p. 206) argue that the Greek story schema and in particular the Greek narrative text structure (or story grammar) does not conform to the Anglo-American story schema and narrative text structure. Because stories narrated by American participants mirrored events depicted in the film, it is possible for individuals to regard such stories as a “valid”

representation of the pear film. In other words, individuals would regard narrating stories using the Anglo-American narrative text structure as the “norm”. Concerning this, Tappe and Hara (2013, p. 306) state that

[i]t would seem that many researchers, language practitioners and parents the world over would agree that the American children’s narratives were more “adequate” than those of the Greek children.... It seems to us that a conformity of narratives to an Anglo-American story schema, that is acquired by exposure to stories from this particular linguistic and cultural context, is widely assumed to be universal and hence the “norm”.

However, the Anglo-American narrative text structure may not be universal or the “norm”. The results of Tannen’s (1979) study and other studies discussed above on the impact of cultural familiarity on text comprehension indicate that stories narrated by people of different cultures reflect different narrative text structures. Such results therefore undermine arguments made by researchers such as Mandler et al. (1980) that there is a universal type of structure for stories. Table 1.7 (see below) presents an overview of different forms of schemas discussed in this section.

Different story grammars that individuals are exposed to may lead them to organise and retell stories in different ways. In addition, their narratives might also have “different functions and display different narrative text structure elements across languages and cultures especially” (Tappe & Hara, 2013, p. 309). This was the case in the stories that Greek and American participants narrated in Tannen’s (1979) study. The use of different narrative text structures is typical when dealing with participants with different languages and different cultures. The focus in the next section is on the discussion of some of the characteristics of Southern African narratives. The discussion takes into account some of the characteristics that Tappe and Hara (2013) have considered but with specific reference to some features of storytelling in Malawi.

Table 1.7 An overview of different forms of schemas (Adapted from Bednarek, 2005, p. 687)

Term	Frames	Scripts	Event chains	Story schema	Structures of expectations
Researcher	Several researchers such as Minsky, 1975; 1977	Schank and Abelson, 1977	Warren, Nicholas and Trabasso, 1979	Mandler, 1984	Tannen 1979; 1993
Definition	“a data-structure for representing a stereo-typed situation” (1977, p. 355)	“A structure that describes appropriate sequences of events in a particular context” (1977, p. 41).	They are organised by causal links that are either made explicit or implicit in the story (1979, p. 23 & 26)	“a mental structure consisting of sets of expectations about the way in which stories proceed” (1984, p.18)	“Structures of expectations” (1993, p. 16)
Structure	Top levels, lower levels with terminals (“slots”) filled with default assignments (1977, p. 355)	“made up of slots and requirements about what can fill those slots” (1977, 41).	They represent directly a logical structure of a story (1979, p. 23)	Abstract rule systems	Organised knowledge in form of expectations (1993, p. 21)
Typical characteristics	Cognitive/mental	Mental/cognitive (cf. 1977, p. 41), its aim is to provide written scripts (cf. 1977, p. 42)	Mental/cognitive	Mental/cognitive	Cognitive/mental
Examples/ types	Syntactic, semantic, thematic, narrative frames.	Restaurant script	Portions of stories or in general	Stories in general	Events, objects, people, levels: context, communicative activity, content.

1.10 Some characteristics of Southern African narratives

Not much information is found in the literature about the characteristics of Southern African narratives and in particular, Malawian narratives. According to Chimombo (1988), one of the

reasons for the scarcity of such information is that most authors focus on publishing collections of narratives and do not include any discussion of the collected narratives. For instance, anthropologists, linguists, missionaries, administrators have attempted to write about oral narrative performance but their collections appear to be unsatisfactory in several ways (Chimombo, 1988). Chimombo argues that

[m]ost of them are wrested from their meaningful context; some of them form parts of larger studies so that the narratives are not examined in their own right; other narratives are revised, modernized and transfigured beyond recognition; and some of them are only bare plots, stripped of their precious flesh (1988, p. 83).

Chimombo (1988) is concerned that the published collections of narratives do not include details about the processes involved in oral delivery of a narrative in a live performance. He considers performance as one of the crucial elements of an oral narrative that requires researchers' attention. Chimombo attempts to give a more comprehensive analysis of the processes involved in oral narrative performance but some of the characteristics of oral narratives are not discussed. As a result, I only consider in the discussion some of the characteristics of Southern African narratives²¹ but this does not mean that Southern African narratives necessarily have the same characteristics. Tappe and Hara (2013, p. 309) share similar sentiments in stating that

[i]t is an oversimplification to say that we discuss characteristics of Southern African narratives; we do not want to imply that all Southern African narratives are the same or that all the characteristics we discuss are unique to Southern African narratives. [...] Our hope is that research on these characteristics will intensify due to the fact that African languages are currently being introduced as languages of teaching and learning on all levels of education in South Africa.

1.10.1 Characteristic functions

In some cultures, as part of a child's socialisation, caregivers as well as educators narrate stories to children and expect them to recount such stories. In addition, they also expect them to provide an account of their daily activities. According to Tappe and Hara (2013), this is typical of what

²¹ The discussion includes characteristics that Tappe and Hara (2013) discussed in their paper. Note that Malawi is part of Southern Africa.

happens in a culture that they refer to as “mainstream Anglo-American”. However, these activities may not necessarily be encouraged in other cultures. Tappe and Hara (2013, p. 309) use an example provided by Westby, Moore and Roman (2002) about some Native American children in the southwest of the USA who are not encouraged to tell stories at all. In this community, children are not encouraged to tell stories that require recall of their experiences. Similarly, Tappe and Hara (2013) indicate that children in Southern African cultures may not be accustomed to telling stories that test their creativity, to adults. However, this does not imply that parents do not engage in storytelling activities with their children in this part of Africa.

Despite variation in storytelling activities and routines in different cultures, it is a broad consensus in Southern African and Native American communities that narratives ought to serve a specific purpose. For instance, oral narrative performance in Malawi is associated with a social function of reminding listeners of life-guiding lessons (Chimombo, 1988). These lessons normally come towards the end of a narrative and they are referred to as moral lessons (see section below on performance). Similarly, Makgamatha (1991, p. 7) argues that Northern Sotho narratives play “a significant role in the daily lives of a particular social group in that they satisfy social and spiritual needs of that group”.

Apart from didactic functions, narratives also serve other functions such as amusement and entertainment. Finally, Makgamatha (1991, p. 9) regards narratives as essential for “[...] introducing young people to the customs of their people, [to] their beliefs and superstitions, their positive values, their ideas and ideals and everything that constitutes their moral and ethical view of the world”.

A child who is familiar with the functions described above may be reluctant to tell a story without being guided by a specific purpose. For instance, this may happen in an academic context where educators require children to provide an account of their daily activities. Even though this aspect requires further research, Tappe and Hara (2013, p. 310) think that “the specific functions of Southern African narratives may hinder certain groups of Southern African children in relating narratives in a school context”. However, when a child is required to narrate a story that focuses on elements that are familiar such as the one discussed below, he or she may be happy and willing to do so.

1.10.2 The element of performance

An oral narrative performance in a Malawian context²² encompasses most of the oral traditions that exist in the society (Chimombo, 1988). Oral traditions that are found in Malawian society may also be prevalent in Southern African society because most of the oral traditions in Southern Africa are similar. Regarding this, Tappe and Hara (2013, p. 310) state that

[a]ll Southern African cultures have rich oral traditions that involve proficient storytellers, praise singers and oral historians. The various types of narratives and songs which they perform serve specific purposes and are directed at different audiences.

According to Chimombo, these oral traditions include elements such as a “riddle”, a “proverb”, a “song” and a “dance” (three of these elements except the element “song” are discussed in detail in section 1.10.4 on opening and closing formulae). It is not surprising to find that a “song” is one of the elements of oral traditions and in particular oral narrative in a Malawian context. This is because in Malawi narrating a folktale is referred to as *kuyimba nthano*, which literally means, “singing a story” (Chimombo, 1988, p. 85). Singing is part of the actual performance of an oral narrative, hence narrating a story is considered as “singing a story”.

An oral narrative performance includes other elements which Chimombo (1988, pp. 88-91) classifies as internal, non-verbal and extra-textual features. All these features involve what Chimombo refers to as a “two-way process”. This means that both the narrator and the audience have a role to play during performance. It is therefore important that the two-way process is maintained during the performance.

Internal features include the use of *tilitonse* (“we are together”) in response to the opening formula (see section 1.10.4 for more details about opening formulae) uttered by the narrator. Apart from chanting *tilitonse* in response to the opening formula, the audience is also expected to chant in a similar way every time the narrator pauses. According to Tappe and Hara (2013), such chants are widely used in performance of an oral narrative in many Southern African communities, for instance, the chanting of *keleketla* and *ntaalipo* in certain speech communities of Northern Sotho and Tanzania respectively (Tappe & Hara, 2013, p. 311; Willis, 1978, p. 27).

²² I am aware that using the term “Malawian context” is a simplification as political boundaries and linguistic boundaries do not coincide.

According to Chimombo (1988, p. 88), the use of these chants emphasises the fact that the performance is not meant for one person only, in this case, the narrator, but the audience as well, hence the two-way process referred to earlier on. Chimombo further explains that the use of *tilitonse* aids the development of the performance. Furthermore, the use of *tilitonse* is regarded as an “act of submission to the narrator, who holds the reins and manipulates the audience’s feelings” (Chimombo, 1988, p. 88). *Tilitonse* is normally used when the performance is in Chichewa language but when other languages are used such as Chiyao²³, *go* or *gogodela* (a yao ideophonic expression which performs the same function as *tilitonse*) is used instead (Chimombo, 1988, p. 88).

Another internal feature is the use of a song. The song may be linked to the narrative thematically or it may not. During the singing part, the narrator expects the audience to participate and he or she does this by supplying them with appropriate “antiphonal” responses. Chimombo (1988, p. 88) explains that the singing livens up the performance especially if the narrator notes that the audience is sleepy or losing interest or concentration.

Performance of an oral narrative also involves the use of non-verbal features such as facial expressions, gestures and voice modulation (Chimombo, 1988). According to Chimombo, these features are also known as dramatic elements, as sometimes both the narrator and audience may be required to take part in the actual acting in order to portray what is being said in the narrative. There are also other non-verbal elements such as clapping, drumming and dancing, which come into play when songs are sung.

Finally, performance of an oral narrative involves the use of extra-textual features. These are features that help to highlight what is being portrayed in the narrative. One such feature is known as interpolation, which is an interruption during performance (Chimombo, 1988, p. 91). According to Chimombo (1988, p. 91), the narrator uses this time to explain some points to the audience. Because performance is a two-way process, a member of the audience can also act as an interpolator. There are also other extra-textual features such as harangue (a form of critique) and acting. For instance, Chimombo (1988, p. 91) explains that, “[...] the audience can comment

²³ One of the languages spoken in the southern region of Malawi (see Chapter 3, section 3.5.2 on languages spoken in Malawi).

on, or object to, the way the narrative is told”. Regarding acting, the narrator or the audience may dramatize an episode and take part in the acting. Both harangues and acting involve a two-way process.

It can so far be seen that performance of an oral narrative does not put an emphasis on linguistic features that provide a link between two or more events. In other words, the narrator does not use transition markers that enhance a logical portrayal of events. In agreement, Tappe and Hara (2013, p. 311) state that, “[...] linguistic features ensuring “stand-alone” meaningfulness of a narrative, such as explicit cohesive ties and context-independent antecedent-pronoun relationships, may be largely absent from a “performed narrative””. This however puts an African child who is not exposed to such linguistic features during socialisation at a disadvantage because assessment of narratives in an educational setting takes into account the use of such features (Tappe & Hara, 2013). The use of these features is part of the requirement when narrating a story that conforms to a canonical narrative text structure (see the Narrative Scoring Scheme in Chapter 3, section 3.6.3). In this regard, Tappe and Hara (2013, p. 298) argue “[...] that language proficiency measurements need to take into account a child’s “narrative socialisation”; in other words, teaching and assessment of narrative text structure needs to be based on linguistic descriptions of ethnolinguistic discourse patterns [...]”.

1.10.3 The role of repetitions

Repetition is a prominent feature of oral narrative performance. This may occur at word, phrase, sentence, or episode levels (micro-structural or macro-structural levels respectively). Tappe and Hara (2013, p. 311) indicate that repetitions are present in folk narratives all over the world. Repetitions at episodic level have been noted in narratives by “Western” and Anglo Americans, native tribes in the southwest of the USA and native tribes in the Pacific Northwest. Repetitions may serve different functions such as intensifying an action or musical rhythmical features, showing passage of time or enhancing reception and retention. Regarding the latter, Chimombo (1988, p. 114) explains that repetition is used to

[c]onsolidate names, places and events and to imprint them in the minds of the listeners, so that they will remember clearly what has gone before, what is happening, and what is going to happen. If there were no such system of

repetition, no one would remember the account, seeing as it is the spoken medium only that is in use.

The element of repetition is also present in some of the formulaic openings and closings of folk narratives as seen in section 1.10.4. In addition, the element of repetition is also present in dialogues. Chimombo (1988, p. 113) gives an example of how repetition is used in the performance of a trickster story entitled “The hare and the well”. In this story, hare engages in a dialogue with hyena every time he (hare) visits the well. This form of dialogue is repeated six times. The dialogue is repeated in this manner to emphasise hare’s deceptive actions.

1.10.4 Opening and closing formulae

1.10.4.1 Opening formulae

A narrator signals that he or she is about to tell a story through the use of a riddle, a song or a call that emphasises the importance of narratives (Chimombo, 1988). The use of riddles is common practice among many Southern African ethnic groups, such as the Tumbukas and Chewas of Malawi. Once the riddle is given, the narrator expects an answer from the audience. It is a requirement for the audience to provide an answer. If they fail, they are required to “pay” a number of imaginary cows until the narrator is satisfied (Chimombo, 1988, p. 87). When the narrator decides to use a song to mark the opening of the narrative, it may act as a title to the story. This may guide the audience as to what the story will be about. As already alluded to above, telling a narrative is a two-way process. The audience is required to respond to the song in the form of antiphonal responses. If the audience does not know the song, then the narrator teaches them the song and how to respond to it. Finally, a call may be used to establish the importance placed on narratives (Chimombo, 1988). One way of doing this, as explained by Chimombo (1988), is to include in the call a message that forefathers said that narratives should not be forgotten. According to Chimombo (1988, p. 87), “the elder’s injunction not to forget the stories becomes *raison d’être* (reason or purpose) of storytelling, hence the narrator with the backing of the forefathers establishes his right as well as his authority to tell a story”.

The three forms discussed above are preliminary to any narrative but the narrator is not required to use all of them (Chimombo, 1988). However, Chimombo explains that before any performance the narrator has to prepare the audience physically and psychologically and hence

applying at least one of these forms becomes necessary. These forms are used before the usual opening formula *Padangotelo* or *Padangokhala* (“Once upon a time”), *Tsiku lina* (“One day”), *Kalekale kunali* (sometimes *Kalekale* or *Kudali* may be used in isolation) in Chichewa or in Chitumbuka *Kalekale kukaba...* (“A long time ago there was...”). These opening formulae are similar in many Southern African communities. However, there may be some differences due to the existence of several dialects in these communities. Makgamatha (1991, p. 47) provides some examples of opening formulae in Northern Sotho narratives which vary due to dialectal differences *E (r)ile e (l)e nkano...* (“There was a tale...”), *E rile e le nonwane...* (“There was a tale...”), *E le e be nonwane...* (“It was a tale...”), *Ngano ngano...* (“A tale, a tale...”), *Nonwane, nonwane...* (“A tale, a tale...”), *Ile, ile...* (“There was, there was...”). These examples from Northern Sotho narratives also demonstrate the influence that repetition has on storytelling.

1.10.4.2 Closing formulae

Most narratives end with a closing formula because of the belief that once you have opened a proverbial door to a fantasy world you are expected to close it (Tappe & Hara, 2013, p. 312). Unlike the opening formulae, which were similar across different language groups, closing formulae are formulated differently. The most popular way to end a narrative is through the use of a simple statement such as *basi mpamene idathera* in Chichewa meaning “this is where the story ended” (Chimombo, 1988, p. 92). This is followed by a moral statement or lesson, which is given by the narrator or a member of the audience. The Fipa people from Tanzania also use similar closing formulae such as *icilaayi cane caapeela* (“my story has come to an end”) or *icilaayi cane caasila* (“my story is finished”) (Willis, 1978, p. 27). In a Malawian context, the closing formula is followed by other formulae such as the forms that preceded the opening formula (Chimombo, 1988). In this case, a riddle, a song or a call may be used. The use of the riddle may signify that the narrator or someone else is about to start another story. As explained before riddles are used to prepare the audience for the story physically as well as psychologically. The narrator may also decide to close a narration by singing the same song that had opened or accompanied the narrative (Chimombo, 1988). The song may or may not relate to the narrative thematically, depending on the narrator’s preference. There are also other formulae that the narrator uses to mark the end of the narration such as the one illustrated in the example below.

Narrator: Kandiphulileni mbatata pamoto

(Take the potato (for me) from the fire

Audience: Yaphyelela

(It is burnt)

This example tries to illustrate that a potato is burnt because the narrator had taken long to finish his story. Because in most cases the narration takes place in an open area where members of the audience gather around an open fire, the open fire is sometimes used for roasting potatoes. However, this set formula is given whether there are potatoes roasting in the fire or not (Chimombo, 1988).

Apart from the closing formulae, there are also other ways that are followed to signal the end of the narration. For instance, Makgamatha (1991, p. 47) explains a common practice in various African countries of spitting in the fire around which the members of the audience have gathered. According to Makgamatha, this symbolizes “the killing of the tale so that ogres and supernatural beings cannot hunt the living, especially the young children” (Makgamatha, 1991, p. 47). Makgamatha explains that in Northern Sotho the narrator does not literally spit in the fire but chants the ideophone *Mpho!* This ideophone may be followed by the formula *Sa mosela wa seripa!* (“That which has a short tail!”).

1.10.5 Dialogues

Dialogue is another prominent feature of oral narrative performance. Both Makgamatha (1991, p. 126) and Chimombo (1988, p. 113) confirm plentiful use of dialogue in Northern Sotho and Malawian folktales respectively. Dialogue is not only regarded as a stylistic device in narratives but it is used to serve different functions. For example, Makgamatha explains that dialogue helps in plot and character development. Tappe and Hara (2013, p. 313) agree and indicate that

[...] dialogues contribute to the performative nature of storytelling in that the narrator can enact different characters and lend them different voices; this is a globally used narrative strategy that adds interest to the narrative. Hence, the dialogue is a stylistic means of adding considerable amounts of entertainment and variation to an orally presented narrative which would otherwise be a lengthy monologue.

Makgamatha (1991) regards dialogue as a rich stylistic device because of the way it is used in storytelling. Non-verbal features such as gestures, facial expression and voice modulation accompany dialogues. It is therefore “not only the words used in these dialogues that make the style rich, but the way the words are spoken, too; that is, the tone of voice, and the accompanying gestures” (Makgamatha, 1991, p. 128).

1.10.6 Demotion of the canonical narrative text structure elements

The sections above have focused on descriptions of the narrative text structure elements that are part of the structure of folk narratives in Southern Africa. These narrative text structure elements, as discussed in Tappe and Hara (2013), do not form part of the “canonical” or mainstream Anglo-American narrative text structure (see Table 1.5 and Table 1.6). The implication from the descriptions above is that certain narrative text structure elements that are considered “essential in canonical narrative text structure models, are not necessarily essential in the narrative text structure underlying many folk narratives” (2013, p. 313). These differences may therefore lead one to question the universality and validity of the canonical narrative text structure as suggested by Mandler and her colleagues (Mandler, 1982; Mandler et al., 1980). The discussion in the next section focuses on two narrative text structure elements, setting, and internal response/reaction, which appear to be absent in the narrative text structure of folk narratives.

1.10.6.1 Setting

Griffith, Ripich and Dastoli (1986, p. 541) define setting as “[t]he spatial and/or temporal location where story events take place; the introduction of the main characters, the protagonist, and the spatio-temporal context” (see Table 1.5 for more details of the canonical narrative text structure elements). Malawian folktales do not include the setting element. This is because the purpose of storytelling is to make the audience learn something from the story through its plotline and characters. Jeppesen (2012, p. 118) explains that “[i]t would generally not be acceptable to use specific names or refer to real places in an *nthano*, except perhaps in the lesson”. It is likely that folktales narrated by most Malawians therefore place an emphasis on characters and plotline because the audience is required to learn from characters’ behavior and their actions. The belief is that a story is not narrated for its own sake but for the audience to learn some moral values. The behavior of characters is therefore very important as this helps to uplift moral behavior of the audience. Another reason for not including the setting element is the

two-way process which appears to dominate throughout storytelling. Tappe and Hara (2013, p. 313) who cite Westby et al. (2002) agree and explain that “[i]n a narrative tradition, where narratives are perceived to “belong” to the audience as much as to the narrator and where the guiding principle of narrative discourse is that of a participatory narrator-audience engagement [...] it might appear unnecessary to present a setting”.

It is worth noting that some South African children with either Afrikaans or English as their mother tongue managed to insert settings into the narratives that they produced from a wordless picture book (Acker, 2012, p. 80). Acker’s results demonstrate that “55% of the five- to six-year-olds, 88% of the six- to seven-year-olds and 100% of the eight-and-a-half to nine-and-a-half year-olds in her sample began their narratives with a setting” (Tappe & Hara, 2013, p. 321).

The implication of what has been said above is that an African child who is exposed to such narrative practices might apply them to other avenues of storytelling whether in the form of oral or written discourse (Tappe & Hara, 2013). However, practices that would be regarded as the “norm” when storytelling is performed in a mother tongue would be viewed as “atypical” when a language of teaching and learning is involved. Hence there would be a “misalignment between the narrative practices in a child’s primary language(s) and the narrative practices in a respective language of teaching and learning” (Tappe & Hara, 2013, p. 297).

1.10.6.2 Internal response/reaction

Internal responses/reactions represent the main protagonist’s reactions to initiating events, such as emotional responses, thoughts or intentions. According to Tappe and Hara (2013), one of the functions of an internal response/reaction is to motivate the protagonist to become active in order to achieve a goal. Internal response/reaction may be portrayed in narratives through the use of emotion verbs (for example, “cry”, “laugh”), internal response adjectives (for example, “sad”, “happy”, “worried”) and verbs relating to cognition (for example, “think”, “realise”, “notice”).

Like setting, internal response/reaction appears to be missing in the narrative text structure of folktales in Southern Africa. Tappe and Hara (2013, p. 314) argue that this element is omitted because Southern African folktales as well as many other folktales do not place so much emphasis on “the protagonist as an individual with distinct feelings and motives that are grounded in their own affective state; rather, the protagonist becomes a schematised

representative for a type of person”. They also argue that the reason for the omission might be similar to the one that Scollon and Scollon (1981) provide concerning the Athabaskan tribe²⁴. It is not appropriate in Athabaskan culture to “predict the future, to speak of one’s plans or to assume that one knows the thoughts or feelings of others” (Tappe & Hara, 2013, p. 314).

1.11 Conclusion

This chapter has discussed the processes involved in comprehension that leads to a coherent mental representation of text. It has also introduced two approaches to text comprehension, the Construction-Integration model (CI model) and schema theory, which acknowledge the role played by background knowledge in text comprehension. However, the two approaches are different in the sense that the CI model assigns a more decisive role to bottom-up processes whereas schema theory relies heavily on top-down processes (Kintsch, 2004, p. 1279). According to the proponents of the CI model (Kintsch, 1988, 1998, 2004; van Dijk & Kintsch, 1983), schemas play an important role in the comprehension process but they do not act as filters that control construction but as context that influences the integration process.

The chapter has also questioned the universality and validity of the canonical narrative text structure as suggested by Mandler and her colleagues (Mandler, 1982; Mandler et al., 1980). Narratives might display different narrative text structure elements and have different functions across languages and cultures especially.

The next chapter reviews the available literature in connection to the development of monolingual and bilingual children’s narrative skills. It also reviews story grammar analyses that have been used to assess the narrative text structure in children’s stories. The chapter also considers alternative methods for assessing children’s narrative skills. It especially considers other measures of assessing how monolingual and bilingual children capture and convey events in a narrative, how they manage to tell stories that are coherent, and how they achieve cohesion, that is, their ability to tie sentences or units together within a narrative.

²⁴ The Athabaskan or Athapascan tribe (also known as Dene, Athapascan, Athapaskan) is a “large group of indigenous peoples of North America, located in two main southern and northern groups in western parts of North America (US, Canada and Alaska)” (Tappe & Hara, 2013, p. 314).

Chapter 2: Literature Review

2.1 Introduction

In this chapter, I discuss different narrative measurements that researchers have used to analyse stories narrated by children (section 2.2). I also discuss the development of narrative skills by looking at the different stages that children go through as they acquire storytelling skills (section 2.3). Thereafter, I review studies that have assessed coherence in children's stories using story grammar analysis (section 2.4). Apart from these studies, I also review studies that have used other measures of narrative skills. In section 2.5, I provide an overview of results from recalls and self-generated stories. I especially consider the results of studies that used three media of presentation namely, aural, which is also referred to as audio or radio in some studies, pictorial, and audio-visual or visual as my study employed similar modes of presentation. I also discuss monolingual and bilingual children's ability to relate events in a narrative using Mayer's (1969) picture book "Frog, where are you?" in section 2.6. Following this, I discuss how monolingual and bilingual children manage to tell stories that are coherent and cohesive in section 2.7. I especially look at monolingual and bilingual children's developmental trends in their use of cohesive ties and referential expressions.

2.2 Different narrative measurements

Researchers emphasise the importance of assessing individual's narrative performance at two levels, namely macrostructural and microstructural (Hughes, McGillivray & Schmidek, 1997; Paul, 2001). According to Bartels-Tobin and Hinckley (2005, p. 467), macrostructures are structures that organise texts globally while microstructures organise texts locally. Texts need to be structured both globally (large fragments of discourse in the form of paragraphs, sections and chapters) and locally (connections between clauses and sentences). The organisation of texts at the macrostructural and microstructural levels enables readers or listeners to, among other things, identify referents of pronouns, match synonymous terms and establish a coherent representation of text (Chapter 1, section 1.8.2, explains how a reader or listener establishes a coherent mental representation of text).

In a macrostructure analysis, researchers might be interested in assessing the number of story grammar elements (Anderson & Evans, 1996; Stein & Glenn, 1979, see Table 1.5 and Table 1.6) that are contained in a narrative. Researchers might also be interested in analysing the structural

complexity of a narrative. In this area of assessment, researchers might examine temporally related series of events, causally related sequences of events, elaborated events, and/or goal-directed actions and plans. During a macrostructure analysis, researchers might investigate the different levels or phases of narrative development, namely early narratives, structure dependent elaboration and individualization. Analysing story conventions or narrative devices might also be necessary in a macrostructure analysis. The researcher might look for the following in a story: repetition for emphasis, formal opening and closing, dialogue, expressions of cognition and emotions.

In contrast, during a microstructure analysis researchers might investigate the use of internal linguistic structures in a narrative (Acker, 2012; Justice et al., 2006). One area of assessment in a microstructure analysis is productivity. The focus in this area is on story length (Acker, 2012, p. 24). Here, researchers might examine the total number of words (TNW) and the total number of T-units²⁵ (TNT) in a narrative. According to Acker (2012, p. 112), the TNW consists of the total number of words of all statements that are contained in a narrative whereas the TNT consists of the total number of complete T-units. Assessing syntactic complexity, which is also part of a microstructure analysis, involves assessment of the mean length of T-units (MLT), also known as mean length of utterance (MLU), the average number of the 5 longest T-units (A5LT) and the use of subordination. The MLU is widely used for assessing the level of language development in language acquisition studies (Hara, 2006, p. 24). In a microstructure analysis, researchers might also investigate lexical diversity. Lexical diversity might include counting the number of different words (NDW) in a narrative and measuring the type-token ratio (TTR). The type-token ratio is “the ratio of the number of different words to the total number of words (TNW)” in a narrative (Acker, 2012, p. 27). According to Acker (2012, p. 26), measuring the number of different words used in a narrative enables researchers to know more about a “child’s expressive vocabulary size and semantic proficiency”.

Other narrative measures that researchers have taken into consideration when analysing children’s narratives include: the use of literate language features, cohesion and coherence,

²⁵ A T-unit is the minimal terminal unit and is defined as “a unit of discourse, capable of functioning as a sentence” (Acker, 2012, p. 24).

fluency and content. Table 2.1 provides an overview of narrative measures that researchers have focused on concerning language use and story aspects.

Table 2.1 Different narrative measurements (Adapted from Acker, 2012, p. 19)

Narrative measures	Assessment areas	Units/categories of assessment areas
Macrostructure	Story grammar	Setting, initiating event, internal response, plan, attempt, consequences or outcomes, resolution or outcome
	Structural complexity	Temporally related series of events, causally related sequence of events, elaborated events, goal-directed actions, plans
	Narrative levels	Early narratives, structure dependent elaboration, individualization
	Story conventions or narrative devices	Repetition for emphasis, formal opening and closing, dialogue, expressions of cognition and emotions
Microstructure	Productivity	Total number of words (TNW), total number of T-units (TNT)
	Syntactic complexity	Mean length of T-unit (MLT), average number of the 5 longest T-units (A5LT), subordination
	Lexical diversity	Number of different words, type-token ratio (TTR)
Use of literate language	Literate language features	Use of '-ly' adverbs, elaborated noun phrases, mental/linguistic verbs
Coherence and cohesion	Reference	Personal references, demonstrative references, comparative references
	Substitution and ellipsis	Replacing previously identified elements with related words, reducing redundancy in a message by only including important elements
	Conjunction	Use of subordinating and coordinating conjunctions
Content	Concrete and abstract language	Labels, picture facts and abstractions
Fluency	Lexical or phrasal interruptions	False starts, internal corrections, repetition not for emphasis

Literate language features are words that help to distinguish between oral language and language of literacy (for instance, language used for reading and writing purposes). According to Acker (2012, p. 28), “[o]ral language is informal and concrete, accented by prosodic and non-linguistic information, but literacy demands a denser, more specified lexicon and more complex syntactic forms, unsupported by non-linguistic information”. Literate language features include the use of the following in a narrative: conjunctions, adverbs, elaborated noun phrases and mental and linguistic verbs (the use of conjunctions is explained in detail in chapter 1, section 1.3; see also section 2.7 for more details about conjunctions). Researchers assess the use of adverbs with an ‘-ly’ ending which reflect the speaker’s tone, manner and attitude towards the topic (for example, adverb of time (“suddenly”), adverb of manner (“angrily”) and adverb of degree (“extremely”) (Acker, 2012, p. 29). Regarding elaborated noun phrases, researchers look for noun elaborations that include modifiers (“she shouted at the naughty dog”; “the naughty” is a modifier), qualifiers (“the boy on the bike fell”; “on the bike” is a qualifier) and relative clauses (“they gave the dog that helped them a bone”; “that helped them” is a relative clause) (Acker, 2012, p. 115).

Researchers also examine the use of mental verbs²⁶ such as “decide”, “know” and “think” and linguistic verbs²⁷ such as “shout”, “say”, “tell” in narratives. The use of mental and linguistic verbs in narratives enhances plot development and advancement. Through the use of these words, the protagonist (main character) in a story becomes active and pursues his plans. The protagonist’s goals and intentions are therefore reflected through the use of such verbs.

Regarding coherence and cohesion, researchers assess the use of referencing, substitution, ellipsis and conjunction in stories (the use of referencing and conjunctions are discussed in detail in chapter 1, section 1.3 and also in this chapter in section 2.7). The term “substitution” refers to a process of replacing previously identified elements with related words (Halliday & Hasan, 1976, p. 89). For example, the way “one” and “does” substitute “my axe” and “knows” respectively in examples 1 and 2 (Halliday & Hasan, 1976, p. 89):

1. My axe is too blunt. I must get a sharper one.

²⁶ Mental verbs refer to “various acts of thinking” (Acker, 2012, p. 116). They express the protagonist or supporting characters’ mental states.

²⁷ Linguistic verbs refer to “various acts of speaking” (Acker, 2012, p. 116).

2. You think Joan already knows? I think everybody does.

Ellipsis is used with the aim of reducing redundancy in a message by only including important elements (Grant-Davie, 1995, p. 456). This is possible only when the context of the message is known to the hearers (Halliday & Hasan, 1976, p. 142). For example, a speaker may say, “he went back” for “he went back to his home village” or when asked a question such as, “have you been drinking?” the response would be “yes, I have” for “yes, I have been drinking” (Halliday & Hasan, 1976, p. 167).

When assessing the amount of content included in stories, researchers look for, among other things, the use of concrete and abstract language. Acker (2012, p. 117) judged the content of stories that children included in their stories in the form of labels, picture facts and abstractions. Labels refer to utterances that solely label or name objects, for example, “there is a boy/there is a dog/I see a bicycle” (Acker, 2012, p. 117). Children may include content pertaining to what they perceive from visual images in their stories. They therefore include in their stories, as guided by the visual images, actions of characters, descriptions of characters or objects and the setting in which characters are situated. Regarding abstraction, children may also include content that is not “physically perceivable” (Acker, 2012, p. 117). This happens when children include the protagonist’s feelings about an event, place or supporting character(s) and also tokens of appreciation (for example, “the dog was sad”, “the sister was scared” and “thank you very much”) (Acker, 2012, p. 117) in their stories.

Finally, regarding fluency, researchers are mainly interested in lexical or phrasal interruptions in narratives. These interruptions occur in the form of false starts, internal corrections and repetition (Bliss, McCabe & Miranda, 1998, p. 352). According to Bliss, McCabe and Miranda (1998, p. 352), false starts are “abandoned utterances”. An example of a false start is “[...] and a handle uh where there’s normally a mirror, there uh is again a sort of notches AND IT GOES [sic] um looks [sic] a little like it has two ears on top actually” (Tree, 1995, p. 731). Internal corrections are “retracings of words or phrases with corrections” (Bliss, McCabe & Miranda, 1998, p. 352). An example of an internal correction is: “We went in the water, went to the lake, uh beach, by, up North . . . We went fishing and . . . we caught, we found a snail” (Bliss, McCabe & Miranda, 1998, p. 352). Finally, repetitions consist of “word or phrasal reiterations that are not used for emphasis” (Bliss, McCabe & Miranda, 1998, p. 352). An example of repetition is “[...] the

seventh example is made of on the on the right side an oval with a bite taken out and on the left side a piece of a a crooked A CROOKED [sic] line[sic]" (Tree, 1995, p. 733).

The descriptions and definitions of narrative measurements given above reveal that there are some overlaps and contradictions in the assessment areas. For instance, "internal response" is one of the elements that are assessed in story grammar analysis. However, "internal response" (see Table 1.5 in Chapter 1 for the definition of "internal response") in the form of mental verbs is also part of the focus when investigating the use of literate language in narratives and also when investigating content of narratives (that is, in the form of "abstraction"). Furthermore, one area of assessment in microstructure analysis is the use of subordination in discourse. However, the use of subordination is also investigated in coherence and cohesion analysis. Researchers need to develop assessment measures which have clear-cut boundaries otherwise overlaps and contradictions in assessment measures may lead to inconsistent results. It is worth noting that inconsistent results may arise due to the fact that researchers interested in children's narrative abilities come from different disciplines (e.g. psychology and linguistics). As one way of resolving overlaps and contradictions in studies of this nature, researchers could come up with a forum where they might share their research interests and ideas.

2.3 The development of narrative skills

This section discusses the three stages of narrative development that a child goes through as provided by Berman (1988) (section 2.3.1). It also discusses the relationship between storytelling experience²⁸ and the development of narrative skills as well as the relationship between literacy experience²⁹ and the development of narrative skills (section 2.3.2).

²⁸ Storytelling experience takes into account the extent to which children are exposed to stories. According to Linebarger and Piotrowski (2009, p. 51), "[...] through exposure to stories, children learn the basic structure of stories and can use this developing knowledge to aid in processing previously constructed stories or in creating their own new stories".

²⁹ Literacy experience refers to the experience that one has in reading and writing. With regard to young children, this may include early literacy activities such as playing alphabet letter games, singing rhyming songs, writing a shopping list for parents, writing a letter to a friend, etc. (Linebarger & Piotrowski, 2009, p. 48).

2.3.1 Three stages of narrative development

According to Berman (1988, pp. 488-493), a child goes through three phases of narrative development; *early narratives*, *structure-dependent elaboration*, and *individualization* in order to narrate a story that is coherent and cohesive³⁰.

Narratives produced in the first phase, *early narratives*, are often characterized by a series of descriptions that fall short of a narrative thread (Berman, 1988, pp. 488-489). In this phase, children do not conform to conventional or rule-bound norms for storytelling hence their stories do not represent unified episodes³¹. Conventional or rule-bound norms for storytelling have the following structure: the beginning (a character, in a situation, with a problem), middle (the character tries repeatedly to solve his problem, but repeatedly fails, usually making the problem worse), and resolution (at the climax of the story, the character makes a final attempt and the problem is resolved). For instance, Berman (1988, p. 491) reports in her study, in which children were required to tell a story from a picture book (“Frog, where are you?” by Mayer (1969)), that only two three-year-old children out of sixteen included the onset of the action in their narrations, this being when the protagonist, a young boy, realises that his frog is no longer in the jar in which he left it. The disappearance of the frog is the central problem in the ‘frog story’ that propels the boy to engage in goal-directed actions to find the missing frog. A child who misses this important onset produces goal-less stories that are incoherent.

There may be two possible answers to the following question: What do we learn from these early narratives? Firstly, the young children in Berman’s study may not have had adequate exposure to storytelling and as a result their stories were mere series of descriptions of entities represented in pictures. Secondly, the young children may not yet have acquired sufficient vocabulary to enable them to narrate a coherent and cohesive story. Exposure to storytelling and proficiency in language may therefore enable children to narrate stories that are well structured, coordinated and detailed (section 2.3.2 discusses the relationship between storytelling experience and the

³⁰ Shapiro and Hudson (1991, p. 960) distinguish between story coherence and cohesion in this way: “story coherence is determined by the degree to which the overall structure of a narrative satisfies the requirements of story well-formedness, whereas cohesion is viewed as the degree to which the propositions and character references within a narrative are linguistically connected” (see section 1.3 for a discussion on coherence and comprehension).

³¹ An episode, according to Stein and Glenn (1979) is described as a story that contains a problem that propels characters into goal-directed actions that are intended to respond to, or solve a problem in some way (see section 2.4.1 for detailed characteristics of an episode).

development of narrative skills and section 2.7.6 discusses the relationship between language proficiency and children's ability to narrate stories that are coherent and cohesive).

The second phase of narrative development is *structure-dependent elaboration* (Berman, 1988, pp. 491-492). Children's narratives in this phase become structure-dependent and more elaborate as they are generally narrated using the expected story elements. In this phase, children are expected to narrate stories that are organised. When narrating a story, whether as an adult or as a child, the narrator needs to think about, among other things, how to tell it, how to begin it and end it, what to include and not to include. The second phase is therefore the period when children narrate stories using the rule-bound norms explained earlier on (the beginning, the middle and the resolution). It is also the period when children make use of linguistic devices in order to connect one event with another. The assumption is that as children grow older, they gain exposure to storytelling and acquire linguistic devices relevant in coordinating clauses or sentences in stories. Hence, the narratives produced during this phase are marked by the presence of macrostructure and microstructure elements. In this second phase, as part of the learning process, children may need to know which macrostructure or microstructure elements are optional and which ones are obligatory as their applicability in the narratives may depend on cultural expectations and speaking contexts³² (Berman, 1988) (see section 1.9.7.5 in Chapter 1 for a discussion on "expectations").

Children may need to know how these different elements operate because not all stories are narrated in the same way. For instance, stories narrated based on one's encounters, one's experiences or a film one watched would be narrated in different ways from folktales. To clarify this further, macrostructure or microstructure elements used in one type of a story (e.g. a folktale) may not be applicable in another type of a story (e.g. a personal story). For example, in Malawian culture, macrostructural elements such as "panangokhala" (which means "once upon a time") and "tili tonse" (which literally means "we are together"³³) are associated with folktales (these elements are discussed in detail in section 1.10.2 in Chapter 1). Another example to

³² This refers to the context in which an utterance is made and is "associated with a very concrete situation including the speaker and addressee(s), the actual sound waves, a physical locale, and things pointed out" (Roberts, 2004, p. 197).

³³ "Tilitonse" is used to show that the listener or audience is paying attention to the story. It is normally uttered by the listener or audience after each and every clause the narrator utters including "panangokhala".

demonstrate how some microstructural elements may be optional while others may be obligatory is the way repetition is used when narrating a story in Chichewa. These repetitions are used for the sake of coordinating one event with another and they are necessary in Chichewa. It would be awkward to use them when narrating a story in a language such as English. This is demonstrated in example 3 below taken from one of the stories narrated by the children in this study.

3. “Mfuko amati, anaona ujeni, beseni, ataona beseni muja, anaona nkhanu ili mmadzi, ataona ili mmadzi muja [...]” (“The mole said, he saw something, a basin, after he had seen the basin, he saw a crab in the water, after he had seen the crab in the water [...])

A storyteller who is narrating a story in English would normally use coordinating words such as “after that”³⁴ (Scott, 1984; Severing & Verhoeven, 2001) rather than repeating what has been related already (see section 2.8 on the use of coordinating words). For example, in English it might be “he saw a basin, after that he saw a crab” unlike what is demonstrated in the translation above.

The third phase of narrative development is known as *individualization* (Berman, 1988, p. 490). In this phase, children narrate stories that are elaborated with complexity. Thus, they choose an elaborate style as they try as much as they are able to provide subtle details of background and surrounding circumstances. This is therefore the phase when children select and express an individual style. This individual style is dependent on “what speakers consider most suited to the particular discourse setting and to their interpretation of the task at hand, as well as to personal predilection” (Berman, 1988, p. 490). In Berman’s study (1988, p. 490), this style was more prevalent in stories narrated by adults than children. This might be one of the reasons why research on narration has focused mainly on the second phase (*structure-dependent elaboration*) of Berman’s (1988) developmental model, as not many children are able to narrate stories reflecting an individual style.

³⁴ Older children of ten years of age and over are able to use such connectives (Scott, 1984; Severing & Verhoeven, 2001).

2.3.2 The relationship between storytelling experience and/or literacy experience and the development of narrative skills

The inclusion of macrostructure and microstructure elements in a story helps in establishing coherence and cohesion respectively. When narrating a story, children are expected to organise it temporally and causally into a sequence that is meaningful to themselves and their listeners. Children are expected to be able to do this in the second and third phases. The storytelling experiences gained from home or school and other culturally shared knowledge help them narrate coherent and cohesive stories. However, coherence may not be achieved when children give a series of descriptions of events that are not interconnected. When narrating a story, children have to structure the parts of the story so that the descriptions of events are orderly and are interrelated in a meaningful way. Hence, coherence may be achieved if a story is organised following a set of rules that govern the organisation of categories and content of a story as stipulated by the story grammar model (Applebee, 1978; Mandler, 1983; Stein & Glenn, 1979, 1982). On the other hand, children may accomplish cohesion by using linguistic reference devices that connect sentences together to achieve textual unity (Bamberg, 1987; Hudson & Shapiro, 1991; Shapiro & Hudson, 1991) (see section 2.7 for more details).

For children to be able to narrate stories that are coherent and cohesive, they need to make use of their storytelling experiences gained from home or school. At home, they need to learn, among other things, how to structure stories from their early socialisation experiences³⁵ that have some links to storytelling. While at school, their literacy experiences may also have an impact on their storytelling skills. Children's early socialisation and literacy experiences have been seen to be critical to the development of narrative skills (Cain, 2003; Linebarger & Piotrowski, 2009; McCabe, 1997). Children who have had several years of experience in reading and listening to stories are more likely to have gained knowledge about story conventions than children without such experiences. Children with literacy experiences are likely to obtain developmental gains in how to achieve structural coherence and linguistic cohesion in narratives. Literacy experience is known to facilitate some of the developmental gains in knowledge about story conventions³⁶,

³⁵ This includes, among other things, the habit of telling children stories before they go to bed as well as the habit of making children relate events about their day to day encounters.

³⁶ Knowledge about stories may also have an effect on reading performance. As such, schools use narrative production in order to enhance the development of children's reading and writing skills (Peterson & Dodsworth, 1991).

structural coherence and linguistic cohesion (Cain, 2003; Linebarger & Piotrowski, 2009). Literacy experience also facilitates the development of vocabulary and grammar (see Place & Hoff, 2011, p. 1845).

Children without adequate reading experiences and other experiences (early socialisation and storytelling experiences) may have problems in narrating coherent and cohesive stories. This is because skills required in storytelling may be similar to those required in reading due to the fact that “[s]torytelling, like reading, also involves the construction of an integrated and coherent discourse that relies on the ability to knit successive sentences together (Eme, Lacroix & Almecija, 2010, p. 1352). Because of this relationship between storytelling and reading, Eme et al. point out that narrative skills are sometimes thought to make a contribution to the acquisition of reading skills. In other words, narrative skills are often regarded as a factor that impacts the acquisition of reading.

The relationship between storytelling and literacy has been further scrutinized in Eme et al.’s (2010) study. Eme et al. studied French speaking adult literacy students together with a control group comprising French-speaking proficient adult readers. Both groups were of a similar background with regard to age, sex and socio-economic status. The adult literacy students were enrolled in an adult literacy programme designed to give them the basic skills they needed to find and hold down a job. In their study, Eme et al. wanted to examine the nature and extent of oral language problems that were being experienced by adults who are functionally illiterate. To achieve this aim, participants were required to generate a story from a series of pictures that they were shown. The results indicate that adult literacy students had difficulties in narrating a story that was both coherent and cohesive. In terms of story grammar elements, adult literacy students were able to include protagonists’ “actions” (e.g. “initiating event”) and “attempts” in their narratives but failed to include the causal relationships between events and possible interpretations (e.g. “internal response”). Besides this, their stories consisted of a series of descriptions of the visible elements of the pictures without establishing any link or connection. Their stories were typical of stories produced by children in the first phase of narrative development as stipulated by Berman (1988). Hence, Eme et al. have referred to their productions as lists or descriptions rather than narratives as they fell short of being called narratives. Further analysis of the stories produced by adult literacy students revealed that their

stories did not reflect any higher-order thinking³⁷ as the students failed to relate the event descriptions at a higher level by drawing inferences. In terms of referential cohesion³⁸, the number of appropriate cohesion markers produced by adult literacy students was lower than the number produced by the control group. The referential markers adult literacy students used were deemed incorrect or ambiguous, hence a listener who had not seen the pictures found it very hard to identify many of the referents in the narratives.

The relationship between storytelling and reading is also portrayed in the way children who are described as less skilled readers organise their stories. Thus, children's organisation of stories has been reported to vary depending on reading level (Cain, 2003; Cain & Oakhill, 1996; Cragg & Nation, 2006). According to Cain (2003), children who have reading comprehension difficulties struggle to organise stories using appropriate structure. Researchers (see Perfetti, 1994) report that children who have comprehension problems may not have adequate knowledge about text organisation or text structures; this inadequate knowledge of text organisation is sometimes attributed to insufficient reading experience. Hence, their stories are generally difficult to follow as they use ambiguous references to characters and events. Their stories are also less coherent and interconnected with limited use of linguistic devices that connect events causally. However, these children may start their stories properly by including phrases such as "once upon a time" that mark story beginnings but fail to integrate other story elements (Cain, 2003). Children who are skilled readers narrate stories that contain the following microstructural elements: literate language features such as adverbs, elaborated noun phrases, metacognitive verbs (e.g. "think" or "know") and metalinguistic verbs (e.g. "say" or "talk"). Other microstructural elements that children who are skilled readers include in their narratives are different types of cohesive devices such as subordinating, conjunctive or coordinating conjunctions, pronominal references and lexical ties such as synonymy.

³⁷ Higher-order thinking essentially means thinking that takes place in the higher-levels of the hierarchy of cognitive processing. Higher-order thinking may require specific higher-order reasoning processes such as analysis, comparison, inference or interpretation and evaluation (Quellmalz, 1985, p. 30).

³⁸ Referential cohesion here refers to the way adult literacy students were able to achieve or create cohesion through the use of referential devices or markers (also known as cohesion markers) such as "he" in reference to a male person, "she" a female person and "it" an object. See also section 1.4.3 on coherence and comprehension and section 2.7.5 for more details.

In the next section, I consider the story grammar model for assessing coherence in narratives. This model was developed by Stein and Glenn (1979) and has been used extensively by researchers when analysing stories produced by children. However, the model has been found to have certain shortcomings. As a result, some researchers have modified it while others have resorted to using other alternative methods when assessing children's narrative skills. I therefore include an exploration of alternative methods that researchers use when analysing children's narrative skills in the next section. Finally, I look at how language and culture may influence the macrostructure of narratives produced by bilingual children.

2.4 Coherence in children's stories

This section reviews studies that have assessed coherence in children's stories using story grammar coding procedures (section 2.4.1). It also discusses some of the weaknesses that are associated with story grammar analysis (section 2.4.2). Thereafter, alternative methods to story grammar analysis are discussed in section 2.4.3. Different forms of support that should be given to young children to facilitate their acquisition of story knowledge are furthermore discussed in section 2.4.4. Finally, section 2.4.5 discusses the influence of language and culture on the macrostructure of narratives produced by bilingual children.

2.4.1 Assessing coherence in children's stories using story grammar analysis

Researchers (e.g., Merritt & Liles, 1987; Muñoz, Gillam, Peña & Gulley-Faehnle, 2003; Stein, 2004) have investigated children's ability to produce stories that are coherent by focusing on the macrostructure elements of a story. In order to achieve this, these researchers have analysed stories using story structure coding schemas developed by Labov and Waletzky (1967) and Stein and Glenn (1979). Stein and Glenn in particular developed a useful model for analysing macrostructure elements, also known as story grammar elements. This model is generally referred to as the story grammar (SG) model. According to the SG model, a story is divided into two main story categories: the setting category and the episodic category (Shapiro & Hudson, 1991, p. 966). The setting of the story introduces the main character(s) and tends to describe the social, physical or temporal context of the story. The episodic category has the following six stages that are seen to develop in an orderly manner as one stage leads to another:

- an initiating event that influences a character

- the character's internal response to this event
- the character's internal plan to solve the problem or change the situation
- the character's attempt to solve the problem
- a consequence that is caused by the attempt
- the character's reaction to the consequence

A simple story generally has one episode while complex ones contain two or more episodes that are connected to each other in several ways (Shapiro & Hudson, 1991, p. 965). Even though there are some variations, researchers agree that a single episode story must have the following characteristics: (a) a formal beginning (e.g. "this is a story about [...]"), ending (e.g. "they found what they were looking for and went back home") and an orientation that introduces setting and characters (e.g. "there was once a little mole who was at a beach"); (b) initiating events which are goal-directed actions (e.g. "he pressed the rocket's yellow button and then pressed another one"); (c) a problem or an obstacle to achieving the intended goal (e.g. "the rocket crashed on an isolated island"); (d) a resolution of the problem (e.g. "sea animals helped the little mole to assemble the scattered parts of the rocket"); (e) a formal ending device (e.g. "the mole went back home") (Hudson & Shapiro, 1991; Shapiro & Hudson, 1991; Stein, 1988; Stein & Glenn, 1982).

The simple story grammar coding procedures have been considered to facilitate accurate measurements when analysing narratives (Heilmann, Miller & Nockerts, 2010a; Heilmann, Miller, Nockerts & Dunaway, 2010b). According to Heilmann et al. (2010b), the simple story grammar coding procedures provide less room for differences in terms of measurements as coders only have to identify the presence or absence of the story grammar units in the narratives presented for analysis. However, simple story grammar analyses are not completely without limitations. These limitations are discussed in the next section.

2.4.2 Limitations of story grammar analysis

This section provides an account of three limitations of story grammar analysis. The first limitation is that story grammar analysis fails to account for the qualitative aspects of narratives. The second limitation is that analysing stories using story grammar analysis does not help to distinguish one group of children from another. The final limitation is linked to the fact that

during analysis, some researchers focus only on most important structural elements instead of the two main structural categories.

Regarding, the first limitation, simple story grammar analysis does not indicate how much detail a story has in each of the story grammar units. It is possible that some stories elicited from children may not contain all the story grammar units as expected but they may have other details worth analysing. There is therefore a need for holistic scorings of children's narratives as these scorings help in capturing the quality and depth or what others have described as a story's "sparkle" (Heilmann et al., 2010b, p. 155). Holistic scoring, according to McFadden and Gillam (1996, p. 48), is a method of narrative analysis that takes into account "the sum of quantifiable elements of story such as grammar, vocabulary, and episodic organisation, as well as less quantifiable elements like charm, interest and clarity". When making such scores, scorers regard stories as wholes and rank them accordingly depending on the hierarchically ordered descriptions that are being considered during the analysis.

There are different approaches to holistic scoring but most approaches take into consideration grouping a collection of stories into quality-based categories. For example, McFadden and Gillam (1996, p. 51) used the holistic scoring procedure described in Myers (1981, p. 30) to assess the overall quality of narratives produced by participants in their study. The categories and the descriptions that were used when rating narratives in McFadden and Gillam's (1996) study are presented in Table 2.2.

Table 2.2 Holistic scoring schema for assessing narratives (McFadden & Gillam, 1996, p. 51)

Category	Description of each category
Weak	Stories in this category were mere descriptions that were poorly organised and not captivating.
Adequate	Stories in this category took one of the following forms: (a) an event recount, without a central climax, (b) a bare-bones narrative without elaboration, (c) a narrative without an ending, (d) a confusing narrative, with strong descriptive segments.
Good	Stories in this category were captivating and they contained problems and resolutions.
Strong	Stories in this category were easily understood narratives with a clear, integrated story line, elaboration, interesting word choices, and some captivating features such as a climax, an ending twist, or a compelling personal voice.

Once stories are grouped into quality-based categories as presented above, the next step is to assign each story a single score allocated to each category (McFadden & Gillam, 1996, p. 51).

One may criticize the scoring schema that McFadden and Gillam (1996) used because it includes descriptions that are not clear. For instance, the scoring schema indicates that some stories were rated “weak” because they were not captivating and others were rated “good” because they were captivating. It is not clear what “captivating” and “not captivating” are referring to. In other words, it is not clear in what way a story is captivating or not. Besides this, what is captivating to one person may not be captivating to another. Regarding a story as “captivating” or “not captivating” may therefore be overly subjective. Furthermore, this scoring schema indicates that a story rated “good” contained problems and resolutions. However, the scoring schema does not indicate whether the story had other elements such as “setting”, “reactions”, “plans”, “attempts”, etc. Furthermore, this scoring schema does not consider other crucial elements of a story such as coherence and cohesion. A narrative rated “good” or “strong” should make use of cohesive devices because coherence is achieved through the use of such devices. A “good” and “strong” narrative should also integrate different types of sentences (such as, simple, complex³⁹, etc.).

³⁹ An example of a simple sentence might be, “he came late” and an example of a complex sentence might be, “he did not attend the meeting because he came late”.

Holistic scoring was initially used by researchers such as Applebee (1978), Hedberg and Westby (1993) and Stein (1988). In these studies, examiners used holistic judgments to rate the quality and developmental level of children's narratives. In doing so, they were able to assess children's narrative proficiency. In other studies subsequent to Applebee's study, researchers have adapted what was initially introduced by Applebee (1978), Hedberg and Westby (1993) and Stein (1988), to do holistic ratings. For example, Manhardt and Rescorla (2002) adapted Applebee's narrative maturity scale⁴⁰ to assess narratives produced by eight- to nine-year-old children with histories of language delay (i.e. a delay in language development). The results reveal that children with histories of language delay obtained lower factor scores on story grammar represented by Applebee's narrative maturity scale in relation to a comparison group. The results reveal that the researchers were able to detect differences in terms of narrative proficiency between a group with a delay in language development and a group with typical language development. Another study that relied on holistic judgments was conducted by Pearce, McCormack and James (2003) who used Hedberg and Westby's (1993) and Hughes, McGillivray and Schmidek's (1997) scoring schema⁴¹ to assess narratives produced by children of between five and six years of age. The results of Pearce et al.'s study reveal that the researchers were able to examine story-grammar differences not only between children with language impairments and typical language development but also between children with specific language impairment (SLI) and children with language impairments that fell outside the diagnostic category for SLI because of their low non-verbal cognitive abilities (LNVA).

The second limitation relates to what has been discussed in the paragraph above. Analysing stories using story grammar analysis does not help to distinguish one group of children from another. Researchers such as Liles, Duffy, Merritt and Purcell (1995) and Norbury and Bishop (2003) who used macrostructure measures as provided by Stein and Glenn's story grammar model failed to distinguish language impaired children from typically developing children.

⁴⁰ This was a five point scale based on the following five categories: (a) heap: events described with no central theme, (b) sequence: events related to a single theme; no causal links between story concepts, (c) primitive narrative: stories have a concrete core, (d) focused chain: story revolves around a central character going through a series of events, story well connected, (e) true narrative: well-developed story that has a central theme or moral (Manhardt & Rescorla, 2002, p. 6).

⁴¹ Scoring was done using an eleven point scale based on the following eleven categories: (a) isolated description; (b) descriptive sequence; (c) action sequence; (d) reactive sequence; (e) unfinished episode; (f) abbreviated episode; (g) complete episode; (h) complex episode; (i) multiple episode; (j) embedded episodes; and (k) interactive episodes.

Researchers (e.g. McFadden & Gillam, 1996) who chose holistic ratings as described above when analysing children's stories successfully documented differences between children who are developing typically and those with language impairment.

The third limitation of simple grammar analysis is linked to the fact that during analysis, some researchers focus only on most important structural elements instead of the two main structural categories (setting and episodic categories) mentioned above. As a result, it becomes difficult to detect whether there are differences in the narrative abilities of children with and without language impairment (LI). According to Soodla and Kikas (2010), in order to choose such elements, researchers firstly need to take into account definitions of a good coherent story. For instance, Soodla and Kikas explain that a good coherent story should contain a goal-directed action of the protagonist. A good coherent story, according to Soodla and Kikas, should therefore contain an episode which is goal-based and which has reference to the following three elements: an "initiating event" or an "internal response", an "attempt", and a direct "consequence" (story grammar elements are defined in Table 1.5 in Chapter 1). A complete episode ought to contain all these essential elements otherwise it would be, according to Soodla and Kikas, an incomplete episode if one of these elements were not included. From this, it can be said that Soodla and Kikas do not consider the setting category as structurally important. According to Merritt and Liles (1987), "setting" information as well as "internal reactions" information only helps to provide additional information that is not essential to the complete episode structure.

This begs the question of whether or not researchers would agree with Soodla and Kikas' categorization of structurally important elements, especially since their categorization arises from their definition of a good coherent story. This question has been raised because researchers have defined a 'good coherent story' in different ways. For instance, Rumelhart (1977) states that a good story should begin with a setting and it should contain problem-solving episodes. Other researchers, such as Mandler and Johnson (1977), Schank and Abelson (1977), Stein and Glenn (1979), have also described a good story as consisting of episodes. Labov and Waletzky (1967), on the other hand, describe a good story in a different way stating that good narratives should be structured around "high points" or "suspension points"⁴². Because of these different definitions,

⁴² A high point or a suspension point, also known as the turning point of the story, is the climax of the story when the ultimate suspense reaches its peak.

what Soodla and Kikas may consider as a good coherent story may not be a good coherent story to other researchers. As a result, what Soodla and Kikas may consider as structurally important elements may not be regarded as structurally important elements by other researchers. Hence, categorizing story elements or judging stories in this manner may be regarded as subjective and unscientific and may lead to mixed results (see section 2.5.2 for more details in relation to the concept of “central information” and how it leads to mixed results).

2.4.3 Alternative narrative measurements

Limitations of story grammar analysis have led researchers to consider other approaches to analysing narratives beyond merely measuring the presence or absence of story grammar units. Some researchers analyse narratives by focusing on children’s use of literate language and cohesive devices (Bamberg & Damrad-Frye, 1991; Halliday & Hasan, 1976; Hedberg & Westby, 1993; Wigglesworth, 1997). On the use of literate language, investigators (see Westby, 2005) are interested in assessing children’s use of metacognitive verbs (e.g., “think” or “know”), metalinguistic verbs (e.g. “say” or “talk”) and elaborated noun phrases (e.g. “the little mole in the bottle with different sea animals surrounding him”). According to Westby (2005), these are some of the language features that are commonly used by teachers in the classroom and are part and parcel of the school curriculum. These language features also play a role when judging a child’s narrative competence. For instance, Bamberg and Damrad-Frye (1991) found that abstract language features are used by children of five years of age when narrating stories and are considered as vital features “for relating the hierarchical relationships between events in complex narrative productions” (Heilmann et al., 2010b, p. 156). However, I do not, in my study, analyse metacognitive verbs or metalinguistic verbs nor do I analyse elaborated noun phrases. This is because the use of literate language features has been seen to be prevalent in children narrating stories in English. Since the multilingual children in my study narrate stories in Chichewa and English, I focus on what is applicable in both languages, for instance, their ability to relate events in a narrative and narrate stories that are coherent and cohesive. Hence, I have decided to use an adaptation of Heilmann et al.’s (2010a, 2010b) scoring schema, which includes elements such as “character development”, “referencing” and “cohesion” which are not present in the canonical story schema as proposed by Stein and Glenn (1979) and its various modifications (Anderson & Evans, 1996), in this study.

The decision to consider Heilmann et al.'s (2010a, 2010b) scoring schema for analysing stories rather than scoring schemas by Stein and Glenn (1979) and Anderson and Evans (1996) has been made by some researchers because not all children are able to narrate a story with all the episodic elements listed at the beginning of this section. For example, Shapiro and Hudson (1991) analysed stories produced by preschoolers and first graders whose mean ages were four years six months and six years eight months respectively. Their findings suggest that young children are still developing story schema, as the children in their study could not produce stories with all the story grammar units. Young children may be knowledgeable about story structure but struggle to narrate stories that have a problem-resolution structure plot structure on their own. In their study, preschoolers were able to narrate stories that incorporate a problem-resolution plot structure only when they were shown picture sequences that corresponded to these structural categories. On the other hand, first graders were more capable of producing stories that depict the problem-resolution plot structure than preschoolers. First graders thus portrayed that their concept of a story was more elaborate than that of preschoolers. However, first graders failed to provide greater detail corresponding to the structural categories that they had included in their stories. For instance, they were not able to provide details about the setting of the story, story characters, their thoughts, feelings, or their reactions to goal attainment. The first graders' stories lacked the details that are characteristic of stories produced by older children (eight years of age) (see Hughes, McGillivray & Schmidek, 1997). In connection with this finding, Soodla and Kikas (2010) state that some children and even adults do not produce stories that conform to the story grammar elements as presented by Stein and Glenn (1979) due to several reasons. One of the reasons is that narrators may not have the storytelling skills, as explained earlier on.

The results of Shapiro and Hudson's (1991) study as outlined above demonstrate that stories produced by 4-year-old children do not conform to Stein and Glenn's (1979) story grammar structure. Stories produced by such very young children have been likened to event descriptions or scripts (Applebee, 1978). The fact that some four-year-old children are able to produce stories that depict a problem-resolution plot structure with help from pictures shows that children of this age are still in the process of acquiring story schemas. Children of this age narrate stories that do not reflect the story grammar elements proposed by Stein and Glenn, hence their stories "do not have story schemas under operational control" (Hudson & Shapiro, 1991, p. 100). However, four-year-old children have been reported to use story schemas when comprehending stories

(Mandler, 1983). Although young children have difficulties in producing stories containing the story grammar structure, some preschool children have been reported to be able to narrate stories that incorporate some story elements such as the use of past tense, introduction of fictional characters and the use of fairy-tale story beginnings and endings (Applebee, 1978; Hudson & Shapiro, 1991; Shapiro & Hudson, 1997).

Berman and Slobin (1994) also used the story grammar analysis in their extensive studies of typically developing children. However, they compressed the six elements or six stages under the episode category (see the beginning of this section) into three essential elements of the macrostructure which they referred to as the “initiating goal” or “problem” that motivates the action of the story, the “attempts” to achieve the goal and the overall “outcome”. The results showed that very young children struggled to include these three story elements in their narrations from the picture book, (“Frog, where are you?” by Mayer (1969)). For instance, very few three-year-old children (less than 20% of children) narrated stories that contained the three essential elements whereas five-year-old children were able to narrate stories containing an “initiating event”. Nine-year-old children, on the other hand, were able to produce stories with “initiating events” and “attempts” but they struggled to provide a story “outcome” in the manner that adults do. Furthermore, only 50% of the children could narrate stories containing “attempts” and less than 20% could narrate stories containing the overall “outcome”.

Berman and Slobin’s (1994) results indicate that children progress from producing stories that are goal-less to goal-based stories that contain coherent episode structures. The developmental trend of narrative macrostructure in children indicates that children are capable of producing stories that are organised in terms of goals and plans by the age of five (Nelson, 1996). At this age, according to Pradl (1979), children are able to include appropriate information about the setting for the story. In Stein’s (1988) study, kindergarteners were able to include “initiating actions” in their stories and were also seen to try to develop a plot. Similarly, John, Lui and Tannock’s (2003) findings indicate that seven-, nine- and eleven-year-old children were capable of recalling a greater proportion of “actions”, “initiating events” and “consequences” than the other story elements. John et al. (2003) also report that more “internal responses” of characters were mentioned by older children (nine- and eleven-year old children) than younger children

(seven-year old children). There was therefore an age-based effect in the way story elements were recalled.

The reason that a greater proportion of “actions”, “initiating events” and “consequences” than the rest of the story elements were recalled, according to Lorch et al. (1999), is that these categories represent concrete events which may be easier for children to understand and remember during recall. As a result, these categories are more easily included in their story [re]tellings. Internal responses and reactions are least often recalled as these story elements are not concrete events and are more difficult for children to express in their [re]tellings. This is in line with research findings that memory for recall of story elements such as “settings”, “attempts” and “consequences” typically develops much earlier than that for recall of “internal responses” (Griffith, Ripich & Dastoli, 1986; John et al., 2003; Mandler & Johnson, 1977; Stein & Glenn, 1979). Research has found that children are not capable of including “internal goals”, “motivations” and “reactions”, which distinguish more complex story productions from less complex ones, before the age of eight (Hidi & Hildyard, 1983; Stein & Glenn, 1982). However, Hughes, McGillivray and Schmidek’s (1997) findings show that seven- to eight-year-old children are able to produce stories that contain a complete episode level⁴³. At the age of ten to eleven, children are able to produce stories that contain complex plots⁴⁴ (Hudson & Shapiro, 1991; Shapiro & Hudson, 1991; Stein, 1988). Stein’s (1988) findings reveal that fifth graders’ stories included all the episodic elements and contained a logical and coherent plot that was causally connected. It can therefore be said that children are able to produce stories that incorporate complex plots as they grow older. In connection with this, Hudson and Shapiro (1991, p. 102) state that “children’s understanding of episodic structure as demonstrated in story production undergoes considerable development during the elementary school years and it is not until around fifth grade that children are able to tell coherent, goal-based, fictional stories.”

⁴³ A story which has a complete episode level contains the following elements: an initiating event, an internal response, an internal plan, an attempt, a consequence and a resolution or outcome, see also the beginning of this section for a description of an episodic category (Shapiro & Hudson, 1991, p. 965).

⁴⁴ A story which has a simple plot contains one episodic level while a story with a complex plot contains two or more episodic levels connected to each other in several ways (Shapiro & Hudson, 1991, p. 965).

2.4.4 Support that should be given to young children to facilitate their acquisition of story knowledge

Studies reviewed in section 2.4.3 merely describe that older children have different narrative skills from those of younger children. That is, the focus in these studies has been on what older children may include in their stories compared to what younger children may not include in their stories. The review therefore implies that older children have “better” storytelling skills than younger children. However, these studies do not offer solutions for what can be done to facilitate young children’s acquisition of story knowledge. Facilitating young children’s acquisition of story knowledge is critical because storytelling skills, as explained in the introduction, have been linked to, among other things, literacy development, academic achievement and higher-order thinking, including causal reasoning, because children do not only recall events from text or film but they also generate inferences.

There are studies that have tried to simplify storytelling tasks that are given to younger children but such attempts do not produce results that are long lasting because children are assisted at the time when the study is being conducted, that is, the assistance is for a short period of time. For instance, in a study that Shapiro and Hudson (1991) conducted, preschoolers were able to produce stories that were coherent and cohesive because they were shown pictures that corresponded to a well-formed story structure. Shapiro and Hudson (1991, p. 971) concluded that children’s storytelling skills might not be poorly developed as has been portrayed in the studies reviewed in section 2.4.3 but that children are simply “tenuous”. In other words, they have limited ability to apply storytelling skills that they have acquired when they are in the process of [re]telling stories. Shapiro and Hudson (1991, p. 971) argue that children

[...] seem to have acquired much of the knowledge and skills necessary for story production but cannot coordinate this information in narrating stories that are both coherent and cohesive without extensive support. By the age of 6 children’s grasp of episodic structure and their command of narrative devices for creating cohesion are stronger, but additional support serves to further enhance their performance.

Shapiro and Hudson’s argument suggests that children are able to differentiate between stories that are well structured and stories that are not. In other words, children have knowledge about stories that are well structured. However, it is not easy for them to integrate different types of

knowledge when narrating a story because this results in overloading of their working memory (Shapiro & Hudson, 1991, p. 961). It is for this reason that Shapiro and Hudson offered younger children support in their study by showing them pictures that conformed to a well-structured story. However, as already pointed out, this type of support is temporary. Younger children require long lasting support because narrative skills cannot be mastered within a short period of time. In light of this, Peterson, Jesso and McCabe's (1999, p. 65) argue that "[n]arrative skills develop over the course of considerable interaction during which adults prompt, encourage, and scaffold children's talk about the past again and again. Such talk must be frequent, over a long period of time".

Attempts to support younger children have been made by some researchers but the attempts have targeted children with delayed language development, children with communication impairments and/or children who are socio-economically disadvantaged. However, this kind of support should also be extended to younger children with normal language development. In particular, Peterson, Jesso and McCabe (1999) encourage researchers to conduct intervention programmes that facilitate the development of narrative skills of socio-economically disadvantaged children. Their study has shown that children who were placed in intervention programmes performed better than children who were not. For instance children who experienced intervention were able to produce stories that were longer and more detailed than children who were not placed in an intervention programme. In particular, stories that were narrated by children who were placed in an intervention programme contained "more context-setting descriptions about where and especially when the described events took place" (Peterson, Jesso & McCabe, 1999, p. 65).

The results of Peterson, Jesso and McCabe's (1999, p. 65) study also indicate that intervention programmes that involve parents produce "better" results than intervention programmes that involve teachers. Their results show a positive correlation between the types of questions that parents ask their children and the types of narratives that such children produce. Their results further reveal that the children of parents who regularly ask more open-ended questions than closed-ended ones are able to produce complex narratives. Scaffolding via questions is therefore an important way to help children acquire storytelling skills. According to Peterson, Jesso and McCabe (1999, p. 64), parental interaction styles have an impact on the development of children's narrative skills (see Table 2.3).

Table 2.3 A list of parental interaction styles that facilitate the acquisition of narrative skills (Peterson, Jesso & McCabe, 1999, p. 53)

Styles	Examples of parental interaction styles that facilitate the acquisition of narrative skills
S1	Talking to your child frequently and consistently about past experiences.
S2	Spending a lot of time talking about each topic.
S3	Asking plenty of ‘wh-’ questions and few ‘yes/no’ questions. As part of this, asking questions about the context or setting of the events, especially where and when they took place.
S4	Listening carefully to what your child is saying, and encouraging elaboration.
S5	Encouraging your child to say more than one sentence at a time by using backchannel responses or simply repeating what your child has just said.
S6	Following your child's lead. That is, talking about what your child wants to talk about.

Young children need to benefit from the parental interaction styles presented in Table 2.3 to facilitate their acquisition of narrative skills. As pointed out in response to Peterson, Jesso and McCabe’s (1999) findings, support that comes from parents has a greater impact on children’s acquisition of story knowledge than support from teachers.

2.4.5 The influence of language on the macrostructure of narratives

The review of literature presented in section 2.4.3 mainly focused on studies conducted on monolingual children with the aim of demonstrating whether or not monolingual children are able to recall story grammar elements. The focus in this section is on how language and culture may influence the macrostructure of narratives produced by bilingual children. There are relatively few studies with such a focus. One of the studies considered here was conducted by Fiestas and Peña (2004) who analysed stories narrated by bilingual Spanish-English children⁴⁵. The results reveal that the children narrated equally complex stories in both languages (Fiestas & Peña, 2004, p. 162). However, there were some differences in the way the children included the story grammar elements in their narratives. Children had a tendency to include “initiating events” and “attempts” when narrating stories in Spanish whereas they were inclined to include “consequences” when narrating stories in English (Fiestas & Peña, 2004, p. 162). Fiestas and

⁴⁵ According to Fiestas and Peña (2004, p. 158), the children were fluent in both Spanish and English. Criteria for selection of the children included, among other things, a proficiency test, teacher proficiency rating and parent proficiency rating.

Peña (2004, pp. 162-163) provide two explanations for these differences. The first is that the children were more likely to include “initiating events” and “attempts” in their stories narrated in Spanish because narrative styles are culture-specific. This means that the storytelling styles that the children had learnt from their Spanish culture emphasised the inclusion of “initiating events” and “attempts” in stories. Another explanation is that there were different degrees of exposure to stories and the vocabulary of storytelling among them. The children were accustomed to storytelling in Spanish at home while their exposure to storytelling in English was mainly at school. This was the case because the children in Fiestas and Peña’s (2004) study spoke Spanish at home and used English at school in accordance with the bilingual programme at school. As a result, the children learnt different narrative styles and storytelling vocabulary that were culture-specific. Such distinct narrative styles led Fiestas and Peña (2004, p. 163) to suggest that “[p]erhaps the children are learning in English a story structure that includes conclusion, whereas the aforementioned narrative style of Latino Americans has been more concerned with including relationships and descriptions”. Their results therefore reveal that children do not only require their linguistic knowledge to produce a coherent, cohesive narrative but they also require other skills, in this case, narrative skills that are culture-specific. Similarly, Chang (2006), who analysed the stories of Mandarin-speaking children, found that the skills children require to produce a coherent, cohesive narrative are not only limited to linguistic devices but also to narrative skills that are culture-specific.

The results of Cruz de Quirós, Lara-Alecio, Tong and Irby’s (2012) study also present the influence of culture on the macrostructure of narratives produced by bilingual (Spanish-English) children. Unlike in Fiestas and Peña’s (2004) study, the children in Cruz de Quirós et al.’s study had limited proficiency in English but spoke Spanish as the primary language at home. Cruz de Quirós et al.’s study differs further from Fiestas and Peña’s (2004) study in the sense that the main aim was to investigate the effectiveness of a structured story reading intervention programme known as STELLA (Story reTelling and higher order thinking for English Language and Literacy Acquisition) on 38 Hispanic English language learners (ELL). These learners were placed in an enhanced transitional bilingual programme over two years from first to second grade. Their storytelling abilities were compared with 34 control students who were placed in a typical practice transitional bilingual programme during the same time period. Cruz de Quirós et al. made both treatment and comparison ELL groups retell two stories in Spanish and English in

order to measure the story grammar elements each student included in their [re]tellings. Regarding the two groups of children⁴⁶, the results were that children who were receiving a STELLA intervention programme outperformed children in the control group in recalling all the five story elements (“setting”, “character”, “sequence of events”, “problem” and “solution”) in stories narrated in English and Spanish (Cruz de Quirós et al., 2012, p. 100). Regarding the two languages⁴⁷, the results reveal that both groups of children in Cruz de Quirós et al.’s study showed a greater ability to produce stories in their native language than in their second language as they were able to narrate stories that contained four of the five story elements with the exception of a “solution” (Cruz de Quirós et al., 2012, p. 100). That is, the study reports that no significant difference was found pertaining to the “solution” element when stories narrated in Spanish were compared with those narrated in English. Cruz de Quirós et al. report that they expected both groups of children to get higher scores in Spanish than in English for both stories because all children were identified as mother tongue speakers of Spanish with limited English proficiency upon entering school.

Research conducted to investigate monolingual and bilingual children’s ability to narrate stories has produced mixed results. Variation in the findings may be attributed to methodological discrepancies. For instance, some studies have required children to generate their own stories from a picture book (Berman, 1988; Gutiérrez-Clellen, 2002) or film (Beagles-Roos & Gat, 1983; Meringoff, 1980), while other studies have made children retell stories or news that they read (Gunter, Furnham & Griffiths, 2000; Walma van der Molen & van der Voort, 1998, 2000a, 2000b) or listened to (Hayes & Kelly, 1985; John, Lui & Tannock, 2003). As a result, there have been mixed results from such studies as children include certain grammar components such as “settings”, “initiating events” and “consequences” in retold stories and leave them out in self-generated stories (e.g. Stein & Glenn, 1979). Stein and Glenn’s (1979) findings demonstrate that story grammar components such as “settings”, “initiating events” and “consequences” are included most frequently in retold narratives of children in their first and fourth grades respectively. Other studies, however, report that the “initiating events”, “actions” and

⁴⁶ These are results pertaining to group differences (that is, intervention group versus control group).

⁴⁷ These are results pertaining to language differences when scores from both groups of children were analysed.

“consequences” occur most frequently in elementary school children’s stories regardless of whether the stories are self-generated or not (Merritt & Liles, 1987) or retold (John, Lui & Tannock, 2003).

Another example comes from Gutiérrez-Clellen (2002) who studied typically developing bilingual children in order to examine their narrative performance in both their L1 (Spanish) and L2 (English). Gutiérrez-Clellen’s findings affirm that the children were able to include story grammar elements in self-generated stories (referred to as spontaneous narratives in her study) from the picture book, “Frog, where are you?” (Mayer, 1969). However, the children did not manage to include all the story grammar elements in narrative recalls of the story “The tiger’s whisker” (Stein & Glenn, 1979). As different methods were adopted in Gutiérrez-Clellen’s study, it may be impossible to find a point at which a comparison between the results obtained may be meaningful. It can therefore be said that when comparing results, it is essential to consider methods that were used for eliciting stories from children as a way to reduce inconsistencies.

In the next section, I provide an overview of results that were obtained from studies that employed different methodologies in order to elicit stories [re]told by children. In particular, I focus on studies that compared different media of story presentation. The next section summarises results obtained from retold as well as self-generated stories.

2.5 An overview of results from recalls and self-generated stories

The results of retold stories that are summarised in this section come from studies that presented stories to children aurally through radio or other forms of audio recordings (section 2.5.1). The results of self-generated stories are divided into: the first set of results from studies that presented stories through audio-visual or visual media only (section 2.5.2), the next set of results come from studies that presented stories pictorially through picture books or picture sequences or static pictures (2.5.3). My main focus in this section is on results of studies that used the latter three media of presentation because my study used similar modes of presentation. The focus in the final section (2.5.4) is on findings of studies that have compared children’s recall of structural elements when presented with stories in different media. Only a few studies are discussed in this section because literature does not offer much information on this topic. The final section (2.5.4)

presents the general trend of findings in studies that *have* compared [re]tellings from different media of presentation.

2.5.1 Overview of results of studies that used aural/audio/radio for story presentation

The results of Meringoff's (1980, p. 247) study, in which children had an unfamiliar story read to them from an illustrated book, reveal that children paid much greater attention to verbal text and as a result ended up recalling vocabulary that was used in the story. For instance, children used figurative language they had heard in the story they listened to. Furthermore, in Meringoff's study, children included "inferences" in their recall, which were based on the content of the story, their general knowledge and their personal experience. Similar results were found in Beagles-Roos and Gat's (1983, p. 135) study in the sense that children's use of words in their recalls showed that they relied on the words that they had heard in the story read to them. The aurally presented story led younger children "to go beyond the explicit and implicit story content to substantiate their inferences" (Beagles-Roos & Gat, 1983, p. 135). However, in Beagles-Roos and Gat's (1983, p. 135) study, the way children used dialogue for inferences was not enhanced by the aurally presented story.

Similarly to Meringoff's (1980) findings, Hayes, Kelly and Mandel (1986, p. 345) found that the aurally presented story helped children to retain memory of dialogue that was featured in the story. Hayes et al. (1986, p. 345) indicate that their findings "reaffirm that a purely aural rendition enhances retention of certain verbal and auditory components." Hayes et al.'s (1986) findings furthermore reveal that children recalled information that was classified as of "high centrality" (that is, important information) when recalling stories that were presented aurally. However, Hayes et al. question the findings contained in Meringoff and Beagles-Roos and Gat's studies in which the former indicate that children remembered important information from stories presented in both audio and audio-visual media while the latter report that children retold stories that were similar regardless of the medium of presentation. Hayes et al. object to such findings regarding comprehension being comparable as they are derived from different modes of story presentation. They argue that story understanding is more difficult when stories are presented aurally than audio-visually. Their results, based on an aural presentation, confirm this in the sense that children made so many more errors in their recalls than they did when they self-generated stories from the audio-visual presentation. Some of the errors included "inaccurate

story content and the distortion of actual story characteristics” (Hayes et al., 1986, p. 341). Furthermore, the fact that story understanding is more demanding during an aural presentation is also evidenced by the findings of Gibbons, Anderson, Smith, Field and Fischer (1986, p. 1021) which reveal that children’s recalls did not include many elaborations “especially constrained relevant inferences⁴⁸” compared to the elaborations that they included in self-generated stories derived from an audio-visual presentation (see Table 2.4 for more information about findings of studies that used aural/audio/radio for story presentation).

Table 2.4 An overview of results of studies that used aural/audio/radio for story presentation

Researcher(s)	Results
Meringoff (1980)	-Recalls reflect vocabulary, especially figurative language, used in aurally presented story. -Content of aurally presented story, general knowledge and personal experience serve as the basis for inferences.
Beagles-Roos and Gat (1983)	-Recalls reflect vocabulary, especially figurative language, used in aurally presented story. -Content of aurally presented story, general knowledge and personal experience serve as the basis for inferences.
Hayes, Kelly and Mandel (1986)	-Aurally presented story helps children to retain dialogue that was featured in the story. -Aurally presented story enhances children’s memory of “certain verbal and auditory components” (p. 345) -Central information is recalled. -Recalls include many errors.
Gibbons, Anderson, Smith, Field and Fischer (1986)	-Recalls do not include many elaborations especially in the form of constrained inferences.

2.5.2 Overview of results of studies that used only audio-visual/visual for story presentation

In this section, I provide an overview of results from the same studies reviewed above but here the focus is on findings derived from children’s self-generated stories recalled from stories that were presented audio-visually. The findings in Gibbons et al.’s (1986) study affirm that children were able to include many elaborations in self-generated stories recalled from an audio-visual presentation. According to Gibbons et al. (1986, p. 1021), “[a]udio-visual stories produced more

⁴⁸ According to Thompson and Myers (1985, p. 1135), “constrained informational inferences are constrained in the sense of being determined by, and relevant to, information in the story; however, they involve the child’s world knowledge about objects and events specified in the text. In turn, constrained inferences provide a general context for the narrative and permit a more complete interpretation of the story”.

constrained relevant inferences than audio stories and in general more constrained relevant inferences were produced than any other kind of elaboration.” Besides this, their findings reveal that older children (between seven and eight years of age) produced stories that were more story-like when their stories were self-generated than younger children (between four and five years of age) in the sense that older children were able to narrate stories that included more narrative conventions (see Table 2.1 for a list of story conventions) in self-generated stories than in recalls from aural stories. However, younger children retained more dialogue from audio-visual than radio presentation in their self-generated stories. Furthermore, the results of Hayes et al.’s (1986) study confirm that children in the audio-visual presentation narrated stories that contained fewer errors than children in the radio presentation. However, children in the audio-visual presentation did not include more dialogue in their stories than children in the radio presentation. Children in the audio-visual presentation also did not show “significantly greater retention of events of high centrality than events of medium centrality” (Hayes et al., 1986, p. 344).

The criteria that researchers such as Hayes et al. (1986, p. 342) used for classifying story content into categories such as high centrality, medium centrality and low centrality is not clear. Furthermore, as pointed out in section 2.4.2, the approach of classifying certain information as important is subjective. What one researcher regards as important information in a story may be classified as unimportant by another researcher. For instance, Hayes et al. (1986) argue that what Meringoff (1980) regarded as ‘central information’ in her study was rather incidental (that is, information was not crucial to the story’s plot). The subjective nature of the topic “central versus incidental information” has resulted in contrasting findings regarding this topic. Hayes et al. (1986, p. 345) conclude that even though children relied more on dialogue and sound effects when recalling story events, the increased recall of auditory and verbal components was not related to the recall of central information. In contrast to Hayes et al.’s findings, Lorch, Bellack and Augsbach (1987, p. 459) did not attribute the effects of recall of central information to the medium of presentation or auditory and verbal components. Neither set of results clarifies whether central information is recalled equally well when information is presented aurally or audio-visually.

In Meringoff’s (1980) study, children recalled more story actions from the audio-visual presentation than the audio presentation. Children in the audio-visual presentation used visual

content as the basis for their inferences. However, there were no significant differences in children's recall of dialogue or important content when exposed to the audio-visual presentation or the audio presentation. In other words, there was no variation in recall of content between the two media of presentation. Similar findings are evident in Beagles-Roos and Gat's (1983) study in the sense that children's recall of explicit content was similar for the two modes of presentation and children also used visual content as a basis for making inferences. According to Beagles-Roos and Gat (1983, p. 128), "the television story enhanced inferences based on actions." Furthermore, the results of Hayes and Birnbaum's (1980) study reveal that children remembered more events that were presented visually than events that were presented aurally. Their results suggest "preschoolers tend to ignore large parts of the audio portions of certain television programs and pay greater attention to the visual aspects of those presentations" (Hayes & Birnbaum, 1980, p. 410). Table 2.5 summarises findings of studies that used audio-visual/visual only for story presentation.

Table 2.5 Overview of results of studies that used audio-visual/visual only for story presentation

Researcher(s)	Results
Hayes and Birnbaum (1980)	-Children remembered more events that were presented visually than events that were presented aurally.
Meringoff (1980)	-Self-generated stories from audio-visual presentation included more story actions than stories from audio presentation. -Children in the audio-visual presentation used visual content as the basis for their inferences
Beagles-Roos and Gat (1983)	-Children in the audio-visual presentation used visual content as the basis for their inferences
Hayes, Kelly and Mandel (1986)	-Self-generated stories from audio-visual presentation contained fewer errors than stories from radio presentation. -Self-generated stories from audio-visual presentation did not contain more dialogue than stories from radio presentation. -Lesser retention of central information in self-generated stories from audio-visual than stories from radio presentation.
Gibbons, Anderson, Smith, Field and Fischer (1986)	-Stories included many elaborations especially in the form of constrained relevant inferences. -Stories produced by older children were more story-like in self-generated stories as they included story conventions. -Younger children retained more dialogue in their self-generated stories from audio-visual than radio presentation.

2.5.3 Overview of results of studies that used pictorial story presentation

Regarding results from pictorial story presentation, Gibbons et al. (1986, p. 1021) found that children included more descriptive information from picture sequences than from an audio-visual presentation, in self-generated stories. In Klecan-Aker, McIngvale and Swank's (1987, p. 22) study self-generated stories from picture sequences were seen to be more complex than personal narratives produced by children. However, Klecan-Aker et al. found that self-generated stories that children narrated from picture sequences contained fewer clauses and coordination than self-generated personal narratives. Children generated simple and concise stories when given support in the form of pictures or when they were given support in the form of background information in Masterson and Kamhi's (1991, p. 555) study. The assumption here is that children did not find it necessary to narrate a detailed story because of the presence of pictures. Similarly, in Ripich and Griffith's (1988, p. 171) study, the presence of pictures had an effect on the amount of content that was included in younger children's (seven to eight years old) stories. They argue that "[h]aving pictures present during the telling and retelling seemed to affect the story teller's assumption of the listener's need for information. The shared context of the pictures precluded inclusion of certain information" (Ripich & Griffith, 1988, p. 171).

Griffith, Ripich and Dastoli's (1986) state that children's performance in stories elicited from static pictures was limited in terms of content included in their stories. In particular, Griffith et al. report that children did not include much information regarding character's "internal responses" and "internal plans". These results are in line with what has been alluded to in section 2.4 that internal responses and reactions are least recalled when children [re]tell stories, because internal responses and reactions are not concrete events hence they are difficult for children to recall or express in their [re]tellings. However, in their subsequent study, Ripich and Griffith (1988, p. 171) found that even though children generally struggled to include information regarding "internal response" and "internal plan" elements, they were able to include more of this information in self-generated stories than in recalls.

Other studies have found that children are capable of producing stories that are well structured when presented with picture sequences that conform to the structure of a story (Shapiro & Hudson, 1991, p. 971). In a similar way, as alluded to in section 2.4.5, Gutiérrez-Clellen (2002) claims that children were more easily able to narrate well-structured stories from the picture

book, “Frog, where are you?” (Mayer, 1969), than from the aural story, “The tiger’s whisker”, that they had listened to. In other words, the children were able to make use of story grammar elements in self-generated stories using the picture book, “Frog, where are you?” but they did not manage to include all the story grammar elements in narrative recalls of the story “The tiger’s whisker”.

The results from studies that used pictorial story presentation generally affirm that children are able to narrate well-structured stories when presented with pictures as stimulus materials. An explanation for these results, according to Shapiro and Hudson (1991, p. 971), is that when picture sequences are used for stimulus, they depict a structure that children follow when narrating their stories; hence there is no need for them to expend their effort to structure the story. Similarly, Gutiérrez-Clellen (2002, p. 190) argues that it is relatively easier for children to construct a mental model from picture sequences than from aurally presented stories because listening to stories is demanding in the sense that children have to make use of “sufficient memory and attentional resources to keep track of incoming sentences”. Children therefore tend to focus much of their attention on sentence form, lexicon, or prosodic cues, instead of focusing on information that is needed for the construction of the story. As a result, they often retell stories that are incomplete or problematic when derived from aurally presented stories than they do from picture sequences. Gutiérrez-Clellen (2002) shares similar sentiments to those raised earlier on in Hayes et al. (1986) that story understanding is more demanding with an aural presentation than with other modes of story presentation (see Table 2.6 for more information about results of studies that used pictorial story presentation).

Table 2.6 Overview of results of studies that used pictorial story presentation

Researcher(s)	Results
Gibbons, Anderson, Smith, Field and Fischer (1986)	-Children included more descriptive information in self-generated stories from picture sequences than self-generated stories from audio-visual materials.
Griffith, Ripich and Dastoli (1986)	-Limited performance in inclusion of story content as well as information about character's internal responses and internal plans.
Klecan-Aker, McIngvale and Swank (1987)	-Self-generated stories from picture sequences were more complex than personal narratives. -Self-generated stories from picture sequences contained fewer clauses and coordination than personal narratives.
Ripich and Griffith (1988)	-More of character's internal responses and internal plans included in self-generated stories than in recalls
Masterson and Kamhi (1991)	-Children generated simple and concise stories when given support in the form of pictures or when they were given support in the form of background information
Shapiro and Hudson (1991)	-Children narrate well-structured stories when presented with picture sequences that conform to the structure of a story.
Gutiérrez-Clellen (2002)	-Children narrate well-structured stories from a picture book.

2.5.4 The general trend of findings in studies that have compared [re]tellings derived from different media of presentation

The focus here is on findings of studies that have compared recall of structural elements when presented with stories in different media. The results of Baggett's (1979) study, who investigated whether structure of an episode (exposition, complication and resolution) is recalled better in one medium than in another, reveal that recall of structural elements was very similar in both media (audio-visual versus aural) in [re]tellings elicited soon after the presentation. According to Baggett (1979, p. 345), subjects' recall of text structure was "almost equal and essentially perfect" at zero delay (recalls produced soon after the presentation), "essentially perfect" because the recalls conformed to the "exposition, complication and resolution" structure. However, there were some variations in the recall of structure in the delayed recall (after one week) in Baggett's (1979) findings. She found that the main effect of the medium became significant after one week. In particular, she found that the subjects in the audio-visual presentation missed significantly less structure than the subjects who listened to the aural text. In another study, Hayes and Kelly (1985) investigated the reflection of story grammar elements in children and adults' recall of radio and television shows. Their results reveal that both children and adults'

recalls were consistent in their reflection of story grammar elements regardless of the medium of presentation (television versus aural). Similarly, there were no significant differences in terms of the proportion of story grammar elements that were reflected in the subjects' recalls from television or print in a study conducted by Beentjes and van der Voort (1991).

The general trend of findings in studies that have compared [re]tellings based on different media of presentation is that children's performance is better in stories from audio-visual or visual media only than from other modes of story presentation such as aural (Beagles-Roos & Gat, 1983; Greenfield & Beagles-Roos, 1988; Hayes & Birnbaum, 1980; Hayes, Chemelski & Birnbaum, 1981; Hayes & Kelly, 1984; Hayes & Kelly, 1985; Hayes, Kelly & Mandel, 1986; Pezdek, Lehrer & Simon, 1984). Similar findings have also been found in studies that used television, print and audio news as stimulus materials (Gunter, Furnham & Griffiths, 2000; Walma van der Molen & van der Voort, 2000a, 2000b). An explanation for such results, according to Rolandelli (1989, p. 69), is that "the visual modality of television is more salient and memorable" to children when compared to the auditory modality.

The findings discussed in this section indicate that each medium of story presentation is unique in the sense that each medium of story presentation has differing impact on specific aspects of comprehension (for instance, reliance on visualised actions as opposed to reliance on auditory components when [re]telling stories or drawing inferences). The findings have also indicated that the media of presentation may not be comparable because of the different processing demands with which each one is associated. The results in the literature as summarised above have made it clear that producing recalls from aurally presented stimuli is more challenging than producing self-generated stories from audio-visual or picture book stimuli. The findings have also indicated that picture books or other related stimuli seem to offer the kind of support that children need when it comes to structuring stories. Narrating a story from picture books or other related stimuli therefore tends to "offer a high level of scaffolding via the contextualized pictures that facilitates performance" (Uccelli & Páez, 2007, p. 227).

2.6 Monolingual and bilingual children's ability to relate events in a narrative using Mayer's (1969) picture book, "Frog, where are you?"⁴⁹

The focus in this section is on studies that have examined monolingual and bilingual children's ability to relate events in a narrative using Mayer's (1969) picture book "Frog, where are you?". Firstly, I focus on research conducted on monolingual children (section 2.6.1). Thereafter, I discuss findings from studies conducted on bilingual children (section 2.6.2). Overall, the results discussed in section 2.6.2 on bilingual children's developmental trend in narrative skills are consistent with those regarding the developmental trend of monolingual children's narrative skills. The discussion in this section therefore demonstrates that the global structure of monolingual and bilingual children's narratives from "Frog, where are you?" develops as children age. I then compare findings from stories narrated in L1 with findings from stories narrated in L2 by bilingual children (section 2.6.3). Finally, I compare monolingual children's narrative performance with bilingual children's narrative performance (section 2.6.4).

2.6.1 Monolingual children's ability to relate events in a narrative using Mayer's (1969) picture book, "Frog, where are you?"

Berman (1988, p. 470) explains that children's ability to relate events in a narrative entails an ability to refer to events rather than to people or objects participating in those events. However, not all young children can relate events in a narrative for several reasons some of which are explained below. In Berman's (1988, p. 471) study, monolingual Hebrew-speaking children (age range: three to twelve years) and monolingual Hebrew-speaking adults (age range: 20 to 40 years) were asked to tell a story guided by the pictures from Mayer's (1969) picture book "Frog, where are you?". The youngest children in her sample were able to state what was happening in relation to the pictures they were describing (Berman, 1988, p. 473). However, a few of these children noted the existence of objects without any reference to related events in their narration. The types of descriptions that the youngest children provided shows that they were in the initial stages of narrative development characterized by the use of nominal labels and repetitive syntax (Stadler & Ward, 2005). For example, the utterance "it's/ this is (a) dog, and boots, and (a) chair" produced by a three-year-old child in Berman's (1988, p. 473) study shows that the child was not actually narrating the story but labeling the pictures that he saw in the picture book. Hence, according to the explanation given above from Berman (1988) regarding the concept of the

⁴⁹ In this section, reference is also made to another picture book ("A boy, a dog and a frog") by the same author.

relating of events, the child was unable to do so. In a real sense, this child was neither relating any events nor referring to events but was referring to objects that he saw in the pictures. A possible explanation for this is that the child might have been using constructions with which he was familiar. There is evidence that children use a lot of labeling and repetition because they learn these behaviours from parents and caregivers (Huang, 2010). Research also shows that labeling is one of the strategies that adults or caregivers use to develop children's language acquisition (Casasola & Bhagwat, 2007). Through labeling, adults or caregivers help children to identify the names of specific objects.

Apart from the characteristics mentioned above (labeling and repetition), narratives that young monolingual children produce are relatively shorter than those produced by older monolingual children. Young monolingual children's narratives are characterised by containing less complex syntax, incomplete story grammar or a lack of structure. Such developmental patterns were reported in Berman's (1988, p. 474) study in which she measured the number of clauses⁵⁰ produced by the subjects in order to assess the length of the narratives. Her findings show that preschool children produced shorter narratives than school-age children (seven to twelve) and adults. Preschool children narrated stories with an average of 41 clauses while school-age children and adults narrated stories with an average of 60 and 70 clauses respectively (Berman, 1988, p. 476).

Children who are able to relate events in a narrative do not relate them in an unstructured way and they tend to follow the norms of storytelling. They ensure that they include the core components of a narrative, that is, the onset of the plot, the unfolding of the plot and the resolution of the plot. However, not all children are able to narrate a story that contains all the core components ("setting", "initiating event", "internal response", "plan", "attempt", "consequences" or "outcomes" and "resolution" or "outcome"). This was revealed in Berman's (1988) study which aimed to assess, among other things, whether children's stories were in line with the plot line or not. Similar to what has been explained above concerning story length, the results affirm that older children were able to refer to more plot line components than younger children (less than five years of age) (Berman, 1988, p. 477). However, Berman (1988, p. 477)

⁵⁰ Berman (1988, p. 474), regards a clause as "any unit that contains a unified predicate". A predicate is meant here to express a single situation such as one activity, event or state.

reports that at age five there was a drastic increase in the number of children who referred to nearly all of the six components. There was only one three-year-old child who mentioned five or six components, there were two four-year-old children who mentioned five or six components and there were eight five-year-old children who mentioned five or six components (Berman, 1988, p. 477).

The findings from Berman's (1988, p. 483) study further reveal that older children (seven to twelve) were able to relate events in a sequential order in relation to an overall plot line. These findings are consistent with the stages of narrative development proposed by Applebee (1978). According to Applebee (1978, p. 72), 'true narratives' emerge at around five to six years of age. It is around this age when children are able not only to recognize stories that contain all the elements of story grammar but also to tell stories that contain such elements. Hence, children at around this age possess knowledge of story grammar elements and also the ability to use these elements (Howe & Johnson, 1992). They are able to provide the following information: "setting", "initiating actions", "goals" and 'unsuccessful' "attempts" at a plot (Shapiro & Hudson, 1991, p. 961). In addition, children of this age are capable of narrating actions that are goal-directed when asked to narrate a story using a picture book (Trabasso, Stein & Johnson, 1989).

2.6.2 Bilingual children's ability to relate events in a narrative using Mayer's (1969) picture book, "Frog, where are you?"

Studies conducted on bilingual children using Mayer's (1969) picture book ("Frog, where are you?") have reported similar results to those described above with reference to Berman (1988). Muñoz, Gillam, Peña and Gully-Faehnle's (2003)⁵¹ findings reveal that four-year-old children managed to describe events whereas five-year-old children were able to narrate a story that contained a goal-oriented sequence of events. Furthermore, older bilingual (Papiamento-Dutch⁵²) children (twelve years of age) in Severing and Verhoeven's (2001) study produced longer and

⁵¹ The participants in Muñoz, Gillam, Peña and Gully-Faehnle's (2003) study were English-speaking Latino children. Muñoz et al. report that, according to information from parents, English was the primary language of the home. Furthermore, the children were living in a community that was populated by Spanish-speaking people. The children were therefore exposed to Spanish during interactions with people in the community and extended family members.

⁵² According to Severing and Verhoeven (2001, p. 255), Papiamento is the main language of communication in the children's home as well as their community whereas Dutch is the children's foreign language at school.

more elaborated narratives than younger children (five years of age). Older children's narratives in Severing and Verhoeven's (2001, p. 273) study contained "a greater number of propositions and coherence relations" than younger children's narratives.

Besides examining the length of stories that bilingual children narrate, some studies on bilingual children have focused on analysing the core components of the stories that children include in their narratives, similar to analyses that researchers have carried out on monolingual children's stories. For instance, Montanari (2004) investigated the narrative skills of bilingual children whose average age was five years and six months. The children spoke Spanish as their first language (L1) and English as their second language (L2). These children were exposed to English at three or four years of age and thus had limited proficiency in English according to the results of the proficiency test that Montanari conducted. Montanari collected data at two points in time six months apart: At Time I, the children were required to narrate a story in English based on the picture book "Frog, where are you?" (Mayer, 1969). The children narrated the same story but this time in Spanish after a one-week lapse. At Time II (six months later), the children were required to narrate another story based on a different picture book by the same author, "A boy, a dog and a frog" (Mayer, 1967). The narration was done in Spanish and a week later the children were asked to re-narrate the story but this time in English. Montanari (2004) found that there was a direct relationship between age and the children's reference to the core components of the stories. In her study, older Spanish-English bilingual children were able to refer to all the three core components of the 'frog' story: the onset, the unfolding, and the resolution of the plot.

2.6.3 A comparison between L1 and L2 stories narrated using Mayer's (1969) picture book, "Frog, where are you?"

Regarding a comparison between L1 and L2 stories, Montanari's (2004, p. 468) results reveal that narratives in Spanish were different from narratives in English at Time I. In particular, the children did not manage to include the core components of the story, especially in the stories narrated in their weaker language, English. However, at Time II, the narrative structure of the children's stories in English improved. Montanari (2004) reports that the children mentioned the story's core elements in a similar manner across the two languages. Montanari explains that the results were different at Time II because children may have improved their proficiency levels in

their L2 after six months of schooling in English (see the next section on the discussion of the relationship between language proficiency and narrative skills).

Differences between narratives in L1 and L2 are also reported in Severing and Verhoeven's (2001) study. According to these researchers, narratives produced by five- to twelve-year-old children in L1 (Papiamentu) were longer than those produced in L2 (Dutch). The results also reveal that children who were able to narrate long, elaborated and coherent stories did so in both L1 and L2. In other words, children who produced a well-formed story in Papiamentu also managed to produce a well-formed story in Dutch. The results in Severing and Verhoeven's (2001) study reveal a clear link between the measures of text length and text coherence in the two languages (Papiamentu and Dutch). Severing and Verhoeven attributed such results to the fact that children who produced long, elaborated and coherent stories might have had exposure to stories both at home (where L1 is dominant) and at school (where L2 is dominant).

Some studies have reported both differences and similarities between L1 stories and L2 stories (Fiestas & Peña, 2004; Gutiérrez-Clellen & Kreiter, 2003). Gutiérrez-Clellen and Kreiter report that even though L1 stories may be comparable to L2 stories, there are individual differences in stories narrated by bilingual children who were attending second grade. Gutiérrez-Clellen and Kreiter's (2003, p. 276) findings reveal that some children (N = 25) in their study displayed high grammatical competence in both languages because more than 80% of their utterances were grammatically correct. Other children (N = 7) displayed moderate grammatical competence in one of the languages (60-80% of their utterances were grammatically correct) whereas the remaining children (N = 2) displayed limited grammatical competence in either of the languages. Gutiérrez-Clellen and Kreiter attribute such differences to the fact that bilingualism, as a concept, is a "continuum of proficiencies in both languages" (Gutiérrez-Clellen & Kreiter, 2003, p. 276).

The results of Fiestas and Peña's (2004, p. 163)⁵³ study demonstrate that bilingual (Spanish-English) children of four to six years of age narrated stories of equal length and complexity in accordance with measures of productivity (Total number of words (TNW) and total number of T-

⁵³ The children in Fiestas and Peña's study were fluent in both Spanish and English, see footnote in section 2.4.5 for more details.

units (TNT)) and syntactic complexity (Mean length of T-unit (MLT)) and story grammar. However, there were differences in the use of story grammar elements in each language (see section 2.4.5 for more details).

In a similar way to Fiestas and Peña's (2004) findings, the results of Gutierrez-Clellen's (2002, p. 189)⁵⁴ study demonstrate that children of seven to eight years of age managed to narrate stories that were comparable in terms of grammaticality in both Spanish and English. They report that "[e]ven children who appeared limited in one language [...] were capable of producing adequate grammar, appropriate narrative structure, and overall narrative quality in that language when their spontaneous narratives were analyzed" (Gutierrez-Clellen, 2002, p. 189). Gutierrez-Clellen (2002) and Fiestas and Peña's (2004) findings reveal that bilingual children are capable of narrating stories in L1 and L2 that are grammatical. Their results also confirm that bilingual children use language-specific elements in order to produce stories in L1 and L2 (see more details about Gutierrez-Clellen's (2002) findings in section 2.4.5).

The differences between L1 and L2 stories presented in some of the studies reviewed above do not come as a surprise considering the fact that the children in these studies had limited proficiency in their second language. For instance, Montanari (2004) reported that children's limited proficiency in English prevented them from narrating stories that included the core components of a story at Time 1. Gutiérrez-Clellen and Kreiter (2003, p. 271) also indicated that some of the children in their study had limited proficiency in one of their languages. As a result, children in Gutiérrez-Clellen and Kreiter's study narrated a story in one or both languages depending on their proficiency in the two languages, as they did not want to test children who could not comprehend or speak either of the languages in question. Finally, the differences between L1 and L2 stories are to be expected in Severing and Verhoeven's (2001) study because the children only used Dutch at school whereas Papiamentu played a major role in the children's interactions at home.

⁵⁴ The children in Gutierrez-Clellen's (2002) study were proficient in Spanish and English as indicated by the grammatical proficiency test's results.

2.6.4 A comparison between stories narrated by monolingual and bilingual children using Mayer's (1969) picture book, "Frog, where are you?"

Pearson (2002) compared recalls produced by English monolingual and Spanish-English bilingual second and fifth graders. Her results explain the effects of language, age, and socioeconomic status on the quality of narratives produced in English. Pearson reports that monolingual children outperformed bilingual children at both microstructure and macrostructure levels. In particular, the results reveal that there were more significant differences at the microstructure level than at the macrostructure level. The results further demonstrate that bilingual children performed better in stories narrated in English than stories narrated in Spanish. The performance of bilingual children in recalls also revealed larger differences at the microstructure level than at the macrostructure level. These results therefore offer cross-language correlations at the macrostructure level rather than at the microstructure level. According to Pearson (2002), such significant differences in results at the microstructure level may be attributed to the fact that narrative measurements used for assessing stories produced in English may not be sensitive to stories produced in other languages. Muñoz et al. (2003) share these sentiments. Regarding their study, Muñoz et al. (2003, p. 338) report that

[...] traditional measures of language productivity that have discriminating power for monolingual pre-schoolers from mainstream culture were not reliable indicators of developmental change for low-SES Latino children. Although the means for total words and total different words suggested higher productivity for the children in the older group, there was a great deal of variability in both groups.

Muñoz et al. (2003) have, however, reported findings that are different from those of Pearson (2002). Muñoz et al.'s findings are also different from those Berman and Slobin (1994) derived from narratives produced by monolingual English- and Spanish-speaking children. Muñoz et al. report that the bilingual Spanish-English children in their study recalled a greater proportion of complete episodes than monolingual English- and Spanish-speaking children in Berman and Slobin's (1994) study. Muñoz et al. attribute such variations to methodological differences. The approach they used to coding story structure is different from the approach used in Berman and Slobin (1994). Muñoz et al. refer to the approach that they used in their study as a "child-based

approach” while the approach used in Berman and Slobin’s (1994) study is referred to as a “text-based approach” (Muñoz et al., 2003, p. 339). Their approach is child-based because they used a story narrated by a child to identify idea units that they used for assessing a child’s story whereas in Berman and Slobin’s (1994) study the idea units used for assessing a child’s story were based on an adult’s interpretation of “Frog, where are you?”. Muñoz et al. (2003, p. 339) point out that Berman and Slobin’s (1994) approach “predefined propositions” whereas their own approach “defined propositions in terms of the relationships between characters, their actions, and the outcomes of those actions in the child’s story”. They argue that the approach they used in their study to “code story grammar propositions is more likely to give children credit for what they really know” (Muñoz et al., 2003, p. 339).

Besides the differences reported above between stories narrated by monolingual and bilingual children, other studies (Bedore, Fiestas, Peña & Nagy, 2006; Serratrice, 2007) have reported results that are similar from stories produced by monolingual and bilingual children. Results from Serratrice’s (2007, p. 1083) study reveal similarities between monolingual and bilingual (English-Italian) children’s⁵⁵ (age range: six to nine years) use of referring expressions at both global and local levels of clause structure in their narratives. In particular, the results demonstrate that there were similarities in the way both groups of children used indefinite nominal expressions (e.g. a dog), definite nominal expressions (e.g. the dog) and pronominals (e.g. “it”) (see section 2.7.5 for more details about the way children use referential expressions in narratives).

Bedore et al. (2006, p. 243) investigated monolingual and bilingual children’s use of disfluencies (such as false starts, internal corrections, repetition that is not for emphasis). Their results reveal that there were no differences between monolingual and bilingual children’s use of disfluencies. They report that the type and distribution of disfluencies in stories produced by monolingual children were similar to those contained in bilingual children’s stories. According to Bedore et al. (2006, p. 243), the lexical and grammatical revisions that both groups of children produced were more than filled pauses and phonological revision. They argue that such results provide

⁵⁵ The bilingual children in Serratrice’s (2007) study had regular exposure to both languages from birth. According to Serratrice (2007, p. 1083), the bilingual children were acquiring English and Italian simultaneously.

support for the view that even though bilinguals have different language representations⁵⁶, their communicative competence may be compared to that of monolinguals. Different language representations that bilinguals create should therefore not be associated with linguistic uncertainties, such as frequent use of disfluencies in communication.

The next section specifically focuses on how monolingual and bilingual children make use of connectives or cohesive ties and referential expressions to achieve textual cohesion and coherence in stories.

2.7 Cohesion in monolingual and bilingual children's stories

In this section, my focus is on the role played by connectives and referential expressions in a narrative. Firstly, in section 2.7.1, I explain why I focus on the use of connectives and referential expressions used to establish textual coherence and cohesion. Secondly, I deliberate the use of connectives in oral and written discourse in section 2.7.2. Thirdly, I consider monolingual and bilingual children's developmental trend in terms of the use of inter-clausal connectives in sections 2.7.3 and 2.7.4 respectively. Many researchers have reported the developmental trend in children's use of connectives but as with research on macrostructure and microstructure, the overwhelming proportion of available research is on the development of monolingual children's use of connectives. In section 2.7.5, I examine monolingual and bilingual children's developmental trends in the use of referential expressions and finally, in section 2.7.6, I explain the impact that language proficiency has on children's use of connectives and referential expressions in stories.

2.7.1 The relevance of connectives and referential expressions in this study

Connectives and referential expressions have been singled out in this section because they are vital features of texts. Besides, the scoring schema that I use in this study includes "cohesion" and "referencing" elements. As explained in Chapter 1, section 1.3, coherence in text may be achieved through the use of connectives and referential expressions. Regarding the "cohesion" element, I investigate whether or not the children in this study provide smooth transitions between events, that is, whether or not the children are able to link events together using

⁵⁶ Language representation means "using language to say something meaningful about, or to represent, the world meaningfully, to other people" (Hall, 1997, p. 15).

cohesive ties. Concerning the “referential” element, I investigate whether or not the children provide necessary antecedents to pronouns and whether or not references are clear throughout their stories.

Connectives have also been singled out because of the function they serve. They are used to link ideas together at both a local and global level. In particular, inter-clausal connectives are known to fulfil “[...] a conceptual or pragmatic function in the construction of mental models, in which they can be used to indicate the relation between structural elements within the discourse” (Cain, 2003, p. 337). Large fragments of discourse in the form of paragraphs, sections and chapters may be linked through cohesive ties. This is illustrated through the way a writer introduces a chapter of a book. He or she normally does this by letting a reader know the ideas that he or she wants to focus on in the chapter. To achieve this, he or she may use connectives such as “firstly”, “then”, “later” and “finally” in order to signal to the reader what to expect in the chapter and in what order. In this way, “firstly”, “then”, “later” and “finally” link ideas at a global level because the ideas that he or she introduces at the beginning of the chapter may be discussed in different sections of the chapter. Once the reader reads an introduction written in this manner, he or she starts visualising or building his or her own mental models about what to expect in the chapter. According to Cain (2003, p. 337),

[c]onnectives may, therefore, be used by the author or reader of a text as signals that indicate how to integrate information into the text and what should be inferred about the relation between two events [...] connectives may be crucial to the construction of a coherent integrated representation of a text, because they are used to provide explicit cues to the dependent relations between events and to establish structural coherence.

Furthermore, connectives help to establish linguistic cohesion within a narrative. Research findings (Cain, 2003; Shapiro & Hudson, 1991; Shapiro & Hudson, 1997) suggest that linguistic devices such as inter-clausal connectives play an important role in accomplishing cohesion as these connectives tie together the sentences and clauses that make up a story. Linguistic devices, according to Cain (2003, p. 336), “tie the story together at a local level by indicating the semantic relations between events, for example, whether or not two events are causally connected or the temporal sequence of two events.”

2.7.2 The use of connectives in oral and written discourse

Connectives are not used in the same way in written and oral discourse. The results of Verhoeven et al.'s (2002) study show that children use more coordinating devices in spoken narratives than in written narratives. However, in written narratives children tend to include various types of subordinating conjunctions. The results of Verhoeven et al.'s (2002) study are commensurate with the features of oral and written discourse described by Ochs (1979, p. 68). According to Ochs (1979), written discourse uses more complex syntactic structures than spoken discourse and only a few coordinating conjunctions such as “and” and “but”. Complex syntactic structures are characterized by the use of longer mean length of T-units (MLTs) and subordinating conjunctions. The more often subordinating conjunctions are used in stories the more complex sentences are evident. The reason written discourse contains more complex structures is that children (as well as adults) have more time to plan what they want to include in their stories than in oral discourse. Moreover, they have an opportunity to correct what they have written, unlike in oral discourse which therefore may contain disfluencies.

2.7.3 Monolingual children's developmental trend in the use of connectives

Research has shown that the most frequently used connectives in oral discourse, in decreasing order, are “then”, “so”, “though”, “now” and “anyway” (Scott, 1984). In Scott's study, these connectives were used more frequently by ten- to twelve-year-old children than six-year-old children; ten- to twelve-year-old children were also reported to use a greater variety of connectives. Bennett-Kastor (1986) reports the use of the following inter-clausal connectives in decreasing frequency by children (of two and five years of age): “and”, “then”, “so”, “but”, “first” and “when”. Overall, in Bennett-Kastor's study, “and” appeared eighty-nine times altogether in the children's narratives while “when” appeared only twice. The changes in children's use of connectives due to their age may be regarded as a function of increasingly complex mental representations (Boudreau & Chapman, 2000; Lahey & Bloom, 1994). Children's use of cohesive devices reflects their abilities to construct mental models for what they are hearing. As pointed out earlier, cohesive devices play an important role in comprehension because comprehenders are able to establish a coherent integrated representation of a text *through* such devices. Moreover, cohesive devices help to establish causal and inferential relationships in a text. Comprehenders are therefore able to, among other things, establish why certain events happened in a text through the use of “because”. In addition, they

are able to establish consequence(s) or result(s) of certain events as well as contrasting information in a text through the use of “so” and “though” respectively. Besides, comprehenders may be able to establish a sequence or a list of events through the use of “then” and “first” respectively.

The following are some examples of utterances containing connectives such as “then”, “so”, “though”, “now” and “anyway” produced by children in Scott’s (1984, pp. 440-444) study.

4. We start using another colour then.
5. And I was going to put ah a little thing around it so the dogs couldn’t get in.
6. Yeh, you don’t get buses on country roads though.
7. Uh now, does this look good enough?
8. I’ve never had nightmares ... not as far as I know anyway.

According to Scott (1984), the connective “then” is used in utterance 4 to establish a logical relation whereas in utterance 5, the connective “so” is used to establish a result of an event. In utterance 6, connective “though” is used to present contrasting information whereas “now” in utterance 7 is used to signal a “new stage in a thought sequence or a completely new topic” (Scott, 1984, p. 444). Finally, Scott reports that “anyway” is used in utterance 8 for contrastive purposes. In addition, it is used to “signal that an addition is being made to the process of reasoning” (Scott, 1984, p. 444).

In a study conducted by Bloom, Lahey, Hood, Lifter and Fiess (1980) on monolingual English children, it was found that young children (two to three years of age) were able to use connectives such as “and”, “so” and “because”. Hence, it seems that young children are able to create inter-clausal cohesion through the use of simple connectives such as “and” (Hedberg & Westby, 1993; Hudson & Shapiro, 1991). However, Bloom et al.’s results indicate that the connective “and”, being one of the first connectives that children acquire, is not only used to fulfill the coordinating function but is used to convey a wide range of meanings from expressing additive, temporal, causal or adversative relations. These results affirm that it is possible to use one connective in different ways within the same discourse. This is consistent with what has

been documented in literature, that connectives such as “and”, “then”, “because”, “so” and “but” perform different functions at both microstructure and macrostructure levels (Segal, Duchan & Scott, 1991, p. 30). For instance, at microstructure level, “and” is used to fulfil an additive relational function, “then” is used to signal temporal relations, “because” and “so” are used to signal causal relations whereas “but” is used to signal adversative relations (Segal, Duchan & Scott, 1991, p. 30). The same connectives are also used at a macrostructure level to fulfil other functions (see Table 2.7).

Table 2.7 Functions of connectives at a macrostructure level (Segal, Duchan & Scott, 1991, p. 30)

Connective	Function
“and”	Coordinates idea units and continues a speaker’s action
“then”	Marks the succession in the discourse from one topic or episode to another
“so”	Marks the terminal point of a main discourse unit and a potential transition in a participant’s turn
“because”	Marks the beginning of a subordinate discourse unit
“but”	Marks an upcoming unit as a contrasting action

There are contrasting results from studies on children’s use of cohesive ties. Some studies report that older children, between five and ten years of age, are able to use a variety of connectives (Klecan-Aker, McIngvale & Swank, 1987, p. 22). Other studies report that fewer connectives are used by older children than younger children (Bennett-Kastor, 1986, p. 367). According to Klecan-Aker et al. (1987, p. 22), children of this age group (between five and ten years of age) are not only capable of using a variety of connectives but they are also able to use advanced temporal and causal conjunctions. Klecan-Aker et al. further report that five- to ten-year-old children are able to supplement their use of connectives with other advanced constructions such as the use of subordinate clauses. In addition, they report that when children mature they tend to use less coordinating conjunctions and more subordinating conjunctions (Klecan-Aker et al., 1987, p. 22). As children mature, they therefore end up using more clauses per T-unit than before. According to Klecan-Aker et al. (1987, p. 22), “more clauses per T-unit would occur only with more subordination since a T-unit by definition is either the equivalent of a simple or complex sentence.” In contrast to Klecan-Aker et al.’s (1987) findings, Bennett-Kastor (1986)

found that the use of inter-clausal connectives decreased with age from three to five years. Thus, five-year-old children used inter-clausal connectives the least (in a similar way to two-year-old children). The reason for this, according to Bennett-Kastor, is that as children become mature they resort to using constructions other than inter-clausal connectives. Bennett-Kastor concluded that “the smaller use of [inter-clausal] connectives marks maturity in storytelling with the 5-year-olds, but represents immaturity in 2-year-olds, and less familiarity with forms of cohesion” (1986, p. 367).

Furthermore, there are some studies that report that older children (nine years of age) use the connective “and” in a similar way to younger children (three years of age) (Peterson & McCabe, 1987, p. 380). According to Peterson and McCabe (1987, p. 380), “older children are using *and* no differently from younger children; they are simply using it more.” The question is why older children who have already acquired forms of clausal linkage other than coordinating conjunctions would rely on the connective “and”. As reported in Verhoeven et al.’s (2002, p. 154) study, older children ought to have already acquired subordinating conjunctions. Verhoeven et al. state that subordinating conjunctions are part of older children’s vocabulary because they use them in complex sentences in interactive discourse. However, it becomes difficult for these children to use subordinating conjunctions and other forms of clausal linkage to organise longer stretches of text (Verhoeven et al., 2002, p. 154). Hence, they resort to using the coordinating device “and” to perform different functions in text (Verhoeven et al., 2002, p. 154). However, the iterative use of the coordinating device “and” produces a monotonous effect and leads to the creation of uninteresting narratives (Verhoeven et al., 2002, p. 154).

Verhoeven et al. (2002, p. 154) report that in their study children used “and” to link clauses with shared subjects to fulfill the syntactic coordination function as illustrated in utterance 9 below while, in utterance 10, “and” links clauses with different subjects.

9. ‘and then I started to push that boy and I started to call him names’

10. ‘and then I started to push that boy and he started to push me’

Children in Verhoeven et al.’s (2002, p. 154) study also used the coordinating device “and” with the same or different subjects to show that they were about to describe another thematic unit. See utterance 11 below, which illustrates that “we went to school together” is another thematic unit.

11. ‘and then I started to push that boy and he started to push me and we went to school together’

2.7.4 Bilingual children’s developmental trend in the use of connectives

The developmental trend in the use of clausal linking devices outlined in Scott’s (1984) study is also typical in bilingual children. Severing and Verhoeven (2001, p. 263), whose focus was on bilingual Papiamento-Dutch children (between five and twelve years of age), report that the use of connectives increased with age, especially among children between grades 2 and 4 (see Table 2.8). Thus, older children used connectives more frequently than younger children. The general trend was that the majority of the children used more coordinating devices than subordinating devices. Interestingly, however, the use of both coordinating and subordinating devices decreased at grade 6. Bennett-Kastor (1986) also reports that the use of coordinating and subordinating conjunctions decreased with age (that is, from three to five years of age). Such results in Bennett-Kastor’s study are attributed to the fact that the children used another form of cohesive device known as parallelism.⁵⁷ In particular, Bennett-Kastor (1986, p. 353) found that five-year-old children used “parallelism as the second most common connective device after ‘and’”. It appears that with age, children resort to using parallelism to achieve cohesion and coherence in a text.

In terms of the total number of conjunctions, Severing and Verhoeven’s results reveal that children used more coordinating and subordinating conjunctions in Papiamento than in Dutch. The trend was that children who used coordinating and subordinating conjunctions did so in both Papiamento and Dutch. Severing and Verhoeven (2001, p. 273) argue that the significant correlation in the use of both coordinating and subordinating conjunctions in the two languages may be attributed to an underlying growth in the children’s syntactic abilities.

⁵⁷ Parallelism may be defined as “recurrence of the grammatical structure of a sentence or clause throughout one or more successive clauses of a text, while the lexical items themselves vary [...] It may be considered cohesive because of its linking function, whether this recurrence occurs intra-sententially and cross-clausally, or inter-sententially” (Bennett-Kastor, 1986, p. 354).

Table 2.8 Mean percentages of use of coordinate and subordinate conjunctions in Papiamento and Dutch per grade (Severing & Verhoeven, 2001, p. 263)

	Kindergarten	Grade 2	Grade 4	Grade 6
Mean coordination Papiamento	6.83	7.20	14.42	12.29
Mean coordination Dutch	5.67	9.70	17.19	16.64
Mean subordination Papiamento	1.33	1.97	6.46	6.21
Mean subordination Dutch	0.50	0.70	3.00	3.96

Montanari (2004) investigated bilingual (Spanish-English) children whose average age was five years and six months. The children had limited proficiency in English (see section 2.6.2 for more details about the children’s exposure to each of the languages and information about data collection at Time I and Time II). The results portray that at Time I the children had the ability to make appropriate use of cohesive devices only in Spanish, their dominant language. According to Montanari (2004, p. 487), “[...] at Time I, the children tended to be more fluent in their L1, thereby re-enforcing existing cohesive relations between the clauses of their text, while they exhibited a great deal of disfluency in the on-line production of their English narratives”. However, at Time II, Montanari (2004, p. 489) reports that all three children managed to narrate stories that were “thematically-motivated and linguistically-unified” and used cohesive devices in a similar manner in both their languages.

The results of Montanari’s (2004) study suggest a direct relationship between language proficiency⁵⁸ and the ability to use cohesive devices (see the next section for more details). This was because, according to Montanari, the children’s impoverished linguistic resources in their second language at Time I might have prevented them from narrating stories with cohesive ties. However, at Time II there were significant changes as the children’s use of cohesive devices in English was analogous to Spanish, their dominant language.

⁵⁸ According to Montanari (2004, p. 453), “[t]he children were evaluated on their school premises, both in English and in Spanish, with the Pre-Language Assessment Scales (Pre-LAS), a standardized instrument used throughout the Los Angeles Unified School District to measure the students’ listening and speaking proficiency in their L1 and L2”.

The focus in the next section is on the developmental trends in monolingual and bilingual children's use of referential expressions. I specifically look at monolingual and bilingual children's ability to provide necessary antecedents to pronouns and their ability to use references that are clear throughout a story.

2.7.5 Monolingual and bilingual children's developmental trends in the use of referential expressions

According to Chen and Pan (2009, p. 429), "[...] indefinite nominal expressions introduce referents into discourse, thereby marking new information. By contrast, definite nominal expressions and pronominals (explicit or null elements) maintain reference to a previously mentioned referent, thereby marking given information". An example of an indefinite nominal is "a boy" whereas "the boy" is an example of a definite nominal and "he" is an example of a pronominal.

Hickmann (2003, p. 108) reports that there are contrasting results regarding the developmental trend in monolingual children's use of referential expressions. Some studies claim that the nominal/pronominal system is mastered at the age of three, while others claim that the nominal/pronominal system is acquired between the age of seven and ten. Cross-linguistic studies also report contrasting results in the use of referent introduction and reference maintenance. According to Chen and Pan (2009, p. 443), "[w]hereas English relies more on determiners (local marking) to mark reference introduction, Chinese seems to rely more on clause structure (global marking) for the same discourse function. Similarly, Chinese relies on zero elements for reference maintenance more than English does." Furthermore, other studies have reported that the developmental trend in children's use of referring expressions is universal (Severing & Verhoeven, 2001; Verhoeven, 2004). According to Severing and Verhoeven (2001), children adopt similar strategies in their use of referring expressions to fulfil various discourse functions regardless of their linguistic backgrounds (for instance, whether the language in question is an L1 or L2).

According to Hickmann (2003, p. 108), such contrasting results are attributed to methodological as well as theoretical differences. Regarding theoretical differences, Universal Grammar theorists (see Chomsky, 1981) argue that the early mastery of the nominal/pronominal system is due to the claim that grammatical knowledge is innate, whereas functionalists argue that late mastery of the

nominal/pronominal system is due to the different properties that are associated with the use of referring expressions “that contribute to the construction of discourse-internal cohesion” (Hickmann, 2003, p. 108). Discourse function therefore influences the development and use of referring expressions. In particular, the results of Hickmann, Hendriks, Roland and Liang (1996, p. 613) evidenced late mastery of the forms for referent introductions whereas Hickmann and Hendriks’ (1999, p. 446) findings reveal early mastery of the forms for referent maintenance.

No clear-cut developmental trend has been reported in studies conducted on bilingual children because children’s performance in the use of referential expressions depends on several factors, such as proficiency in the languages in question and the methods used for story elicitation tasks. For instance, in findings from Montanari’s (2004) study, at Time I children exhibited limited proficiency in their use of referring expressions when narrating a story in their second language. However, there was a great improvement in the children’s use of referring expressions at Time II. Montanari’s study lends support to the assertion that language proficiency played a role in children’s use of referring expressions. Unlike in Montanari’s study, in Gutiérrez-Clellen’s (2002) children performed better in the use of referring expressions in self-generated stories than in recalls. Gutiérrez-Clellen (2002, p. 189) reports that the results from the self-generated stories suggest that, “the children were able to apply their knowledge of the linguistic devices offered by the languages to represent past events (e.g., aspect distinctions, use of nominal phrases and subjects, etc.) without apparent difficulty and with good overall quality”. Gutiérrez-Clellen’s results confirm that the method used for story elicitation tasks played a role in children’s use of referring expressions.

The next section focuses on the impact that language proficiency and/or cognitive resources have on children’s ability to narrate stories that are coherent and cohesive. It also discusses whether proficiency in language enables children to narrate stories that contain necessary antecedents to pronouns. It is also suggested that proficiency in a language enables children to narrate stories that contain clear references throughout.

2.7.6 The relationship between language proficiency and/or cognitive resources and children’s ability to narrate stories that are coherent and cohesive

The direct relationship between proficiency in language and the ability to produce narratives that are coherent, integrated wholes is revealed in Uchikoshi’s (2005) study which she conducted on

Spanish-English kindergarteners⁵⁹. The children in her study were requested to narrate a “Bear story” using three slides that depicted adventurous activities of a family of teddy bears. Uchikoshi reports that many children at Time I⁶⁰ failed to create long and detailed narratives because of a lack of English vocabulary. Some of them kept quiet or narrated the stories in Spanish. In contrast children who were proficient in English were able to link the sentences in their narratives together. In addition, their narratives contained many events used to move the plot forward. In line with Peterson and McCabe’s (1983, p. 49) categorisation of narratives, Uchikoshi (2005, p. 472) classified the narratives of the children in her study as “chronological narratives” because the children connected sentences together with “and” and “then”. However, Uchikoshi does not provide further details about the way the children in her study used the connective “and”. As a consequence, it is not clear to have the narratives classified as “chronological” because the children often linked sentences together with “and”, unless “and” performs various functions in a child’s discourse as explained earlier on in this section.

The narratives in Uchikoshi’s (2005, p. 472) study were also classified as “leap-frog narratives”⁶¹ (Peterson & McCabe, 1983, p. 48) because children jumped from one event to the next. However, in Uchikoshi’s study, the narratives of the children who were more proficient in English than those who were not contained more events and advanced story structures at Time III. However, their stories ended at the “high point”⁶² according to Peterson and McCabe’s

⁵⁹ The children in Uchikoshi’s study, whose average age was five years and seven months, had Spanish as their L1 and English as their L2 and were living in locations whose inhabitants were Spanish speaking. Besides this, the children’s vocabulary levels in the two languages were tested. The results of the test in Spanish revealed that the children achieved scores akin to those of typical monolingual children between the age of four years eight months and five years zero months, whereas the results of the test in English revealed that the children achieved the same scores as typical monolingual children of 3 years 2 months of age. These results demonstrate that the children’s level of vocabulary usage in L1 was better than in L2.

⁶⁰ Children in Uchikoshi’s (2005, p. 468) study were placed in an intervention programme in which they watched an episode that lasted for 30 minutes in class three times a week from October to the beginning of May. By May, the children had watched a total of 54 episodes. Furthermore, the children were asked to narrate a story at different time periods; at Time I in October before watching any episode, at Time II in February after watching 27 episodes and at Time III in May after they had watched a total of 54 episodes.

⁶¹ In “leap-frog” narratives, children jump from one event to another and leave out important events (Peterson & McCabe, 1983, p. 48).

⁶² The “high point” is also known as the “suspension point” (Peterson & McCabe, 1983, p. 3). This is when a story reaches a climax.

(1983, p. 29) categorisation. This was the case when the children narrated the story up to the climactic moment and ended it abruptly without providing an appropriate ending, that is, without providing a resolution. For instance, one child ended his 'frog' story with the clause "he fall off" leaving out an important resolution part that the boy (the protagonist in the 'frog' story) fell off from a cliff into the river and then afterwards he found his missing frog.

There is also a relationship between language proficiency and children's ability to narrate stories that contain clear references (Montanari, 2004). An example of this relationship is the way one child (five years of age) used nominal expressions and third-person pronominal forms both in his Spanish and English stories in Montanari's (2004, p. 485) study. The child clearly was able to use numerous nominal expressions and make reference to the characters as well as to their actions throughout his [re]tellings in his first language, which was in stark contrast to his use of the nominal expressions and his reference to characters in his second language at Time I. However, the child's use of nominal and pronominal forms in his second language had improved at Time II (Montanari, 2004, p. 489). Montanari's results at Time I suggest that typically developing children who have limited proficiency in one of their languages may not manifest equivalent levels of narrative development.

Apart from language proficiency, children require sufficient cognitive resources to narrate coherent and cohesive stories. Shapiro and Hudson's (1991) study highlights the role of cognitive resources in text production. They argue that for children to be able to produce coherent and cohesive stories, they require sufficient resources to devote to such tasks. According to Shapiro and Hudson, it is easier for children to devote their resources to one task (that is, linguistic cohesion rather than structural coherence) than both. Their findings reveal that children managed to produce coherent and cohesive stories when they were shown pictures that corresponded to a well-formed story structure. Shapiro and Hudson therefore argue that when children are presented with such pictures they are able to dedicate their effort to producing stories that are coherent and cohesive. Shapiro and Hudson (1991, p. 971) also argue that in their study "children may have expended less effort to achieve structural coherence [...] consequently providing them with more effort available to create linguistic cohesion". Based on these findings, Shapiro and Hudson (1991, p. 970) proposed that there is a correlation between mastery of structural coherence and the ability to establish linguistic cohesion when producing a narrative.

2.8 Conclusion

This chapter has discussed different narrative measurements that researchers use when analysing stories. The chapter has also explained the different stages of narrative development. It has been highlighted that children's exposure to stories, be it at home or at school, plays a crucial role in the development of narrative skills. This chapter has also discussed story grammar (Stein & Glenn, 1979) analysis that researchers use to assess coherence in children's narratives. However, limitations of story grammar analysis have led some researchers to opt for alternative methods to assess coherence in children's narratives.

The chapter has also highlighted similarities and differences between findings from studies that used different media of story presentation. It has been pointed out that each medium of story presentation is unique because of the differing impact it has on specific aspects of comprehension. This chapter has also discussed monolingual and bilingual children's ability to relate events in a narrative using Mayer's (1969) picture book "Frog, where are you?". Finally, the chapter has provided an account of monolingual and bilingual children's ability to narrate stories that are coherent and cohesive. It is possible for bilingual children to acquire narrative skills that are comparable to those of monolingual children if they have regular exposure to stories as well as the languages they are acquiring.

The next chapter informs the reader about the research design and methods used in order to collect data for this study. Among other things, the chapter provides details about sampling and story elicitation procedures and the processes involved when analysing data qualitatively and quantitatively.

Chapter 3: Research Design and Methodology

3.1 Introduction

The main aim of this study is to examine the effects of language and medium on the narrative text structure in the [re]tellings of multilingual children through the use of a single narrative assessment measure, i.e. the Narrative Scoring Scheme (NSS) (Heilmann, Miller & Nockerts, 2010a; Heilmann, Miller, Nockerts & Dunaway, 2010b). The study also aims to investigate whether the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning conform to the NSS which was developed from the canonical scoring schemas discussed in chapter 1 (see Tables 1.5 and 1.6). The NSS was recently developed by the Madison Metropolitan School District SALT working group (Hutchison, 2012, p. 7). Most narrative scoring schemas documented in the literature have been used when analysing story [re]tellings by children in Europe, America and other countries outside Africa (Berman & Slobin, 1994; Fiestas & Peña, 2004; Gutiérrez-Clellen, 2002; Hayes & Kelly, 1985). However, literature does not show whether such schemas have been applied when analysing story [re]tellings by African children. On the other hand, there is evidence that such schemas have been used when analysing stories narrated by African American children (Hutchison, 2012, p. 13).

The purpose of this chapter is to inform the reader about the data collection procedures that were used in order to answer the research questions informing this research. In section 3.2, I describe the research design that guides this study. There are two designs that are singled out, cross-sectional and cross-linguistic. I refer to this study as a cross-sectional one because it investigates narrative skills of children of different ages at the same time (Acker, 2012, p. 2; Padeliadu & Antoniou, 2014, p. 1). Furthermore, the study's design is cross-linguistic (Chávez-Peón et al., 2012, p. 255) because it investigates narrative skills of multilingual children in their [re]tellings of the same stories in English and Chichewa. Cross-linguistic design is associated with the work of Berman and Slobin (1994) and their colleagues (Aksu-Koç, 1994; Bamberg, 1994; Berman & Neeman, 1994; Sebastián & Slobin, 1994). But mostly their work focused on monolingual children who speak European languages, namely English, German, Spanish and Turkish. Berman and Slobin's study also used a cross-linguistic design because it investigated children's ability to relate the same events in different languages. However, not much research work has been

conducted on macrostructural narrative elements of children from different cultures and languages prevalent in Southern Africa (Acker, 2012, p. 6). Similarly, Tappe and Hara (2013, p. 299) report that there has not been much discussion of

[...] the significance of narrative text structures in multicultural and multi-linguistic societies even though cross-linguistic research on narrative text structures clearly reveals that, despite a number of supposedly universal story features, there are striking differences between language-specific rhetorical styles.

The current study therefore aims to show how cross-linguistic design may be appropriate and significant for investigations of narrative text structure elements in [re]tellings produced by multilingual children with Chichewa and English as their dominant languages. In order to analyse data collected from these multilingual children, quantitative and qualitative methods were applied (see sections 3.6.7.1 and 3.6.7.2 for more details about these two methods). This therefore implies that the study used mixed methods analyses. Section 3.3 thus includes a discussion on mixed methods and the rationale behind using mixed data analysis.

In section 3.4, I provide an overview of the pilot study I conducted. The pilot study helped me to select appropriate materials for this study. In section 3.5, I describe the setting and participants of the main study. This section of the chapter also describes the procedure for data collection employed. It further provides details about how children narrated stories in response to three different modes of presentation (picture book, film and aural).

Section 3.6 of the chapter informs the reader about the entire process of data processing and analysis. Firstly, it explains the process of transcribing data according to Berman and Slobin's (1994) guidelines. This section of the chapter also describes how data was analysed using the revised version of the Narrative Scoring Scheme (NSS). It further discusses the validity of the NSS and how data was coded following the guidelines of the revised version. Since the schema has been developed for stories narrated in English, it is recommended in this section that alternative schemas should be developed for stories narrated in African languages. In addition, this section describes how data was analysed statistically using the software package MATLAB and motivates why MATLAB was used for the analyses. Finally in section 3.7, the chapter

explains how the anonymity of the participants was protected in compliance with the ethical clearance guidelines of the University of KwaZulu-Natal.

3.2 Research Design

I opted for two designs in this study, cross-sectional and cross-linguistic. Cross-sectional design was chosen because subjects that participated in this study were of three different ages, 10, 11 and 12. A cross-linguistic design was necessitated by the fact that the participants in the current study [re]told stories in English and in Chichewa. Both these designs were adopted because they enabled me to work with narratives that are comparable in content but differ in form. This is because subjects [re]told stories in languages that are completely different in origin; English is a Germanic language, Chichewa a Bantu language. It is possible that subjects [re]told their stories in different ways due to structural differences between these two languages; they may also have [re]told stories differently due to the various ways in which they have learnt their storytelling skills. Moreover, their storytelling skills in English may be different from their storytelling skills in Chichewa.

The cross-linguistic research paradigm in the context of narrative discourse was pioneered by Berman and Slobin (1994), who found that subjects relate the same events in a narrative regardless of the language used in narration, the age of the narrators or the different ways of relating the events. These findings were made from studies that Berman, Slobin and their colleagues (Aksu-Koç, 1994; Bamberg, 1994; Berman & Neeman, 1994; Sebastián & Slobin, 1994) conducted in different countries involving the use of five languages, namely, English, German, Spanish, Hebrew and Turkish. Participants in their studies, who ranged in age from preschool, school-age to adults were generally monolingual and they narrated stories using Mayer's (1969) storybook, "Frog, where are you?", in one of the five languages mentioned above. The main focus of the frog story in these studies and other studies that followed (Ozcan, 2005; Sealey & Gilmore, 2008) was on first language acquisition. Findings from these studies therefore enabled researchers to gain much insight on monolingual children's narrative development. However, considerably less research work using the cross-linguistic design, especially in the context of narrative discourse, has been conducted on multilingual children. Furthermore, not much is known about their narrative development. Similarly, not much is known about elements of narratives that are reflected in the stories that they tell. This study

therefore seeks to contribute knowledge regarding African multilingual children's narrative skills.

The discussion in the next section focuses on mixed data analysis. Among other things, it discusses the rationale behind using mixed data analysis as well as some strengths and weaknesses of quantitative and qualitative research.

3.3 Mixed methods

I used mixed methods also known as “mixed data analysis” when analysing data in this study. Mixed methods research, according to Johnson and Onwuegbuzie (2004, p. 17), is defined as “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study”. I used mixed methods in my study even though qualitative and quantitative purists alike oppose mixed methods research. Both sets of purists believe that one method cannot be compatible with the other (Howe, 1988, p. 10). They both view each of their methods as being superior and ideal for research. One qualitative purist, Guba (1990), argues that it is impossible to combine the two paradigms because both paradigms follow rules that are vastly different and as a result the outcome of research would be totally dissimilar. Guba (1990, p. 81) contends that

[t]he immediate realization is that accommodation between paradigms is impossible. The rules for action, for process, for discourse, for what is considered knowledge and truth, are so vastly different that, although procedurally we may appear to be undertaking the same search, in fact, we are led to vastly diverse, disparate, distinctive, and typically antithetical ends.

One fact worth mentioning is that the controversy over quantitative versus qualitative methods is only being raged in the social sciences (Sechrest & Sidani, 1995). According to Sechrest and Sidani (1995, p. 77), other scientists⁶³ have not expressed any disapproval towards the use of mixed methods. Sechrest and Sidani convey how methodological pluralism is prevalent in evolutionary biology, particle physics, molecular biology and astronomy, as

⁶³ Sechrest and Sidani (1995, p. 77) argue that methodological pluralism (mixed methods research) is not questioned in pure science such as evolutionary biology, molecular biology, astronomy, physics, etc. in which data collection methods range from “nonquantitative observations in natural settings to highly quantitative experiments”.

well as in other disciplines such as economics. It therefore appears that mixed methods have been accepted in pure or 'real' science according to Sechrest and Sidani (1995, p. 77). One may argue that the controversy in the social sciences does not end because both sets of purists base their arguments on the strengths of their respective method. For example, one of the aims of qualitative research is to provide rich descriptions in order to achieve "deep understanding" (Sechrest & Sidani, 1995, p. 79). Hence qualitative purists profess the superiority of "deep, rich observational data" while quantitative purists acknowledge how valuable their "hard, generalizable survey data" is (Sieber, 1973, p. 1335). No researcher would want to conduct research in order to achieve a shallow understanding. When qualitative purists make strong claims about rich descriptions when reporting their findings, they do not realise that quantitative purists also make use of these rich descriptions in order to show how generalizable their data is. Regarding this, Sechrest and Sidani (1995, p. 80) argue that

[q]ualitative research proponents make strong claims on concern for context (often referring to "thick description") in reporting their findings. It is worth noting, too, that generalizability theory [...] a quantitative methodology, is concerned exactly with context effects.

Both sets of purists question the strengths of their opponents' methods instead of trying to use their opponents' methods in their studies in order to assess the strengths emphasised by their opponents and appreciate them. If this were to happen the controversy over the value of quantitative or qualitative methods would no longer prevail. It is unfortunate that each set of purists does not realise the negative impact that this controversy has had on young researchers. Young researchers are met with a difficult choice, that is, whether to associate themselves with one school of thought or the other. An example of the implications of the quantitative versus qualitative debate has been reported in Johnson and Onwuegbuzie's (2004, p. 14) paper who argue "[...] that some graduate students who graduate from educational institutions with an aspiration to gain employment in the world of academia or research are left with the impression that they have to pledge allegiance to one research school of thought or the other". Besides this, the controversy between the two schools of thought may hinder progress in social science research whereas the use of mixed methods has been shown to produce effective results, as the discussion below will demonstrate.

It could also be noted that the controversy is still ongoing in social science because both sets of purists neither realise nor acknowledge that the two methods share certain similarities. Both quantitative and qualitative methods make use of empirical observations in order to answer research questions. According to Sechrest and Sidani (1995, p. 78), quantitative and qualitative researchers, whom they specifically refer to as “empirical inductivists and phenomenologists (also empiricists)” respectively, may have different assumptions and different ways of collecting and analysing data but their ultimate tasks and aims are far from different. They argue that both schools of thought “[...] describe their data, construct explanatory arguments from their data, and speculate about why the outcomes they observed happened as they did” (Sechrest & Sidani, 1995, p. 78). The authors contend that the differences that exist in such empirical observations concern details in terms of who does the observation and what materials are used for the observation.

Neither set of purists seem to realise that there is no research method that is superior to another. Each method comes with its own strengths and weaknesses (refer to Table 3.1 and Table 3.2). However, the use of different strategies, approaches and methods to collect multiple data results in “complementary” strengths and “nonoverlapping” weaknesses (Johnson & Onwuegbuzie, 2004, p. 18). This is what Johnson and Turner (2003, p. 299) have referred to as the “fundamental principle of mixed research”. The question is how the use of different strategies, approaches and methods leads to complementary strengths and nonoverlapping weaknesses.

Table 3.1 Strengths and weaknesses of quantitative research (Adapted from Johnson & Onwuegbuzie, 2004, p. 19)

Strengths	Weaknesses
<ul style="list-style-type: none"> • Testing and validating already constructed theories about how (and to a lesser degree, why) phenomena occur. • Testing hypotheses that are constructed before the data are collected. Can generalize research findings when the data are based on random samples of sufficient size. • Can generalize a research finding when it has been replicated on many different populations and subpopulations. • Useful for obtaining data that allow quantitative predictions to be made. • The researcher may construct a situation that eliminates the confounding influence of many variables, allowing one to more credibly assess cause-and-effect relationships. • Data collection using some quantitative methods is relatively quick (e.g., telephone interviews). • Provides precise, quantitative, numerical data. • Data analysis is relatively less time consuming (using statistical software). • The research results are relatively independent of the researcher (e.g., effect size, statistical significance). • It may have higher credibility with many people in power (e.g., administrators, politicians, people who fund programmes). • It is useful for studying large numbers of people. 	<ul style="list-style-type: none"> • The researcher's categories and theories that are used may not reflect local constituencies' understandings. • The researcher may miss out on phenomena occurring because of the focus on theory or hypothesis testing rather than on theory or hypothesis generation (called the confirmation bias). • Knowledge produced may be too abstract and general for direct application to specific local situations, contexts, and individuals.

One of the strengths of quantitative data analysis, according to Johnson and Onwuegbuzie (2004, p. 19), is that the use of statistical analysis leads to spending relatively less time on data analysis. The researcher's ability to conduct cross-case comparisons and analysis is an advantage in

qualitative data analysis (Johnson & Onwuegbuzie, 2004, p. 20). The fact that a researcher spends less time on data analysis in quantitative research implies that he may have time to conduct cross-case comparisons and analyses in a study that uses both quantitative and qualitative methods.

Table 3.2 Strengths and weaknesses of qualitative research (Adapted from Johnson & Onwuegbuzie, 2004, p. 20)

Strengths	Weaknesses
<ul style="list-style-type: none"> • The data are based on the participants' own categories of meaning. • It is useful for studying a limited number of cases in depth. • It is useful for describing complex phenomena. • Provides individual case information. • Can conduct cross-case comparisons and analysis. • Provides understanding and description of people's personal experiences of phenomena. • Can describe, in rich detail, phenomena as they are situated and embedded in local contexts. • The researcher identifies contextual and setting factors as they relate to the phenomenon of interest. • Data are usually collected in naturalistic settings in qualitative research. • Qualitative data in the words and categories of participants lend themselves to exploring how and why phenomena occur. 	<ul style="list-style-type: none"> • Knowledge produced may not generalize to other people or other settings (i.e., findings may be unique to the relatively few people included in the research study). • It is difficult to make quantitative predictions. • It is more difficult to test hypotheses and theories. • It generally takes more time to collect the data compared to quantitative research. • Data analysis is often time consuming. • The results are more easily influenced by the researcher's personal biases and idiosyncrasies.

Regarding nonoverlapping weaknesses, it is possible that weaknesses of one method may be minimized by the strengths of the other method. For instance, one of the limitations of quantitative research is that the researcher may not notice the occurrence of phenomena because of its focus on theory or hypothesis *testing* rather than on theory or hypothesis *generation* (Johnson & Onwuegbuzie, 2004, p. 19). Because qualitative research focuses on

theory and hypothesis generation about phenomena, mixed methods research may minimize or even eliminate limitations regarding theories and hypotheses. Hence, there is little need for concern about the weaknesses associated with monomethod studies in mixed methods research. Complementary strengths and nonoverlapping weaknesses therefore validate the use of mixed methods research in my study.

In section 3.5, I describe the design of my research in more detail. The data collection comprised of a pilot study and a main study (see Table 3.3). The main study took place in two phases and involved a number of conditions and tasks that I explain in section 3.5. However, before I describe the main study, the discussion in the next section (3.4) focuses on the pilot study that I conducted and the reasons why I conducted this pilot study. The discussion also includes details concerning participants and stimulus materials that I used and the outcomes of this pilot study.

Table 3.3 Elements of the empirical study: Overview

Elements of the empirical study	Function	N*
Pilot study	Testing stimulus material	4
Main Study: Phase one	Pre-selection and recording of stories from “Frog, where are you?”	86
Main Study: Phase two	Recording [re-]tellings of two ‘mole stories’	127

* N stands for “number of participants”.

3.4 Pilot Study

In order to test the stimulus materials for the main study and to gain a better understanding of the task itself I conducted a small-scale pilot study prior to the main study. In this section I provide reasons why I conducted the pilot study (section 3.4.1), I describe the participants who took part in this pilot study, and also the stimulus materials (section 3.4.2) that were used. In section 3.4.3, I describe the procedure followed in this pilot study (section 3.4.3). Finally, section 3.4.4 discusses the outcomes of the pilot study.

3.4.1 Reasons for conducting the pilot study

I conducted the pilot study in order to select stimulus materials for phase two of data collection (see sections 3.5.4 and 3.5.5 for more details about the phases). I wanted to find out which of the ‘little mole’ cartoon films would be appropriate stimulus materials. I also wanted to assess the children’s knowledge of story grammar because information in the literature stipulates that there is a system of rules that guide story encoding and story recalls (Mandler, 1984; Mandler & Johnson, 1977). Assessing children’s knowledge in this area was essential because the Narrative Scoring Scheme (NSS) that I used for scoring stories in the main study includes some aspects of story grammar.

Another reason why I conducted the pilot study was to establish whether the children had knowledge about the animals featured in the cartoon films. Since these films were produced outside Africa and probably for an audience other than African children, it was necessary to know if the children would be able to tell who the little mole was. Assessing their knowledge about the animals in the film was therefore essential because such knowledge, as well as knowledge about events, enables one to comprehend a film well.

3.4.2 Participants and stimulus materials

Four participants took part in this pilot study. The participant’s age range was ten-thirteen years (one ten-year-old, two twelve-year-olds and one thirteen year-old). The participants were living in a location known as Malvern in Durban, South Africa. This location is close to Howard College, one of the University of KwaZulu-Natal’s campuses. I knew the participants because they were members of the same church that I used to attend during the period of my study. I obtained informed consent from their parents. The parents allowed their children to come to the pastor’s house, which was the setting for this pilot study. Both parents and children were told that participation in this pilot study was voluntary.

The films that the children watched in this pilot study were as follows: “The mole and the rocket”, “The mole and the bulldozer”, “The mole and the carpet”, “The mole and the lollipop”, “The mole and the radio”, and “The mole as a gardener”. In Table 3.4 below, I present these films in the order in which they were produced, that is, the year of production and duration.

Table 3.4 Details of the short films developed by cartoonist Zdenek Miler used in the pilot study

Title	Year of production	Duration in minutes
The mole and the rocket	1966	08.40
The mole and the radio	1968	08.10
The mole as a gardener	1969	06.55
The mole and the lollipop	1970	08.00
The mole and the carpet	1975	05.40
The mole and the bulldozer	1975	05.43

3.4.3 Procedure followed in the pilot study

Participants watched all six short films. The consent that I obtained from parents enabled me to be with the children the whole day. After watching one film, participants were asked to write down their recalls in English. The instruction that participants received before watching the film was: “You are going to watch a short cartoon film without any verbal content. Pay close attention to this film because afterwards you will write down what you can remember about the film from beginning to end.” Participants were not given the title of each of the cartoon films. This was deliberate as the titles of these films include the name of the main character. Telling them the title meant giving away the name of the main character they were supposed to use during recalls, hence a test of their world knowledge. After participants had finished their recalls, they were given some time to relax before watching the next film. Time given for relaxation varied from thirty minutes to one hour.

3.4.4 Outcomes of the pilot study

Following the pilot study, I realised that some children did not know the animal (the “little mole”). Because of this, I took time to explain what this animal was to the children. As a result of this observation I decided that in the main study my assistants and I would show the children still pictures of the mole and ask them if they know what this animal is. If they did not know the animal, my assistants and I would tell them what it was through the use of a name in Chichewa (*mfuko*). My assistants and I would also describe its character, that is, we would tell them that the mole is an animal that lives in the ground. We would further inform them that the mole

sometimes steals farmers' crops such as groundnuts and sweet potatoes⁶⁴. Giving the children this background knowledge was necessary bearing in mind the role that background knowledge plays in comprehension (see sections 1.8 and 1.9 in Chapter 1 on the role played by background knowledge in comprehension).

I also considered the disadvantages of making children write down their recalls. I discovered that writing was demanding as the children were still mastering their literacy skills; hence the recalls were rather short. The lack of quality of the recalls was exacerbated by the fact that recalls were produced in English; the children's second language. This vindicated my intention for children to be able to recall the stories in either Chichewa or English in the main study.

Two of the stories (from "The mole and the rocket") as narrated by the children are presented in Appendix 1. All the stories were typed the way participants wrote them with no correction to structure, grammar, spelling, or other errors.

3.5 The main study

The main study took place from 5th to 23rd November 2012 in Lilongwe, Malawi. In order to get a better idea of the influence of language and medium on the narrative text structure in the children's [re]tellings, I selected participants from two different school types, namely a private school, Kapita, and a public school, Mphungu. The reason for this was that children attending the private school would have had an earlier and more extensive exposure to English and arguably would come from more affluent homes than children from the public school. I deduced that if I found features of narrative text structure *different* from those in the 'canonical' scoring schema but *similar* across all children in the main study these similarities might indeed be attributable to the influence of an African (Chichewa) narrative text structure.

3.5.1 Sites of the main study

Both Kapita and Mphungu primary schools are located in the central region of Malawi in the capital city, Lilongwe. I chose participants from these two schools because I could access them easily due to the fact that they are found in the central region and capital city where one has ready access to different means of transport to other African countries (for instance, South

⁶⁴ This animal tends to do this in many areas in Malawi and because of this behaviour farmers use traps to catch it or sometimes even kill it.

Africa, Zambia, Zimbabwe and so on) by road as well as by air. This meant that I was able to travel to Malawi from South Africa during the data collection period.

I also chose these two schools because they are located in a region in which Chichewa, my mother tongue, is the dominant language. Hence, I was able to interact easily with participants. This would not have been the case if the study were conducted in other regions of Malawi that use other languages in which I am not proficient.

The medium of instruction at Kapita primary school is English in all grades except when doing subjects such as Chichewa. On the other hand, Chichewa is the medium of instruction from grade 1 to grade 4 at Mphungu primary school. The language policy in Malawi permits the use of a mother tongue from grade 1 to grade 4 in public schools and English becomes the medium of instruction from grade 5.

I also chose participants from private and public primary schools to ensure representativeness and as a result the findings may be generalized to participants with similar backgrounds. Sarantakos (2005) argues that choosing typical subjects from a variety of backgrounds makes the sample representative enough and therefore generalizations to similar populations may be possible.

3.5.2 Participants in the main study

The reason why I chose multilingual children who have Chichewa and English as their dominant languages is that English is the official language for communication and Chichewa is the language spoken by the majority of Malawians. Both languages are used as the medium of instruction in public schools. According to Matiki (2009), using information obtained from the 1998 Malawi Population and Housing Census, Chichewa is regarded as one of the majority languages and is spoken by 70% of the population in Malawi⁶⁵. It is estimated that in 1998 Chichewa was spoken by a total of 5,263,731 speakers (Kayambazinthu, 1998).

⁶⁵ Other languages spoken in Malawi include the following: Chiyao (10.1%), Chitumbuka (9.5%). The rest of the languages such as Chilomwe, Chisena, Chikhokhola, Chitonga, Chinkhonde, Chilambya, Chisukwa, Chinyakyusa, Chimambwe, Chibandia, Chinyiha and Chindali are spoken altogether by less than 3% of the population (Matiki, 2009).

Participants in the main study were 127 children (see Appendix 2) whose age range was ten to twelve years from the two primary schools, namely Kapita (private), and Mphungu (public). Since English is only taught as a subject in grade 1 to 4 and introduced at a later stage from grade 5 as a medium of instruction in public schools, I considered ten years as the age when children would be sufficiently competent to [re]tell a story in English.

I selected these children using two different sampling techniques, namely, purposeful and probability sampling techniques. Purposeful sampling is a type of sampling in which participants are chosen because of the qualities that they possess (Tongco, 2007, p. 147) whereas probability sampling involves “selecting a relatively large number of units from a population, or from specific subgroups (strata) of a population, in a random manner where the probability of inclusion for every member of the population is determinable” (Tashakkori & Teddlie, 2003, p. 713). The use of both purposeful and probability sampling techniques provided me with a sample that has helped to answer the research questions under investigation.

On the one hand, I used probability sampling because I wanted to use a sample that was representative and, moreover, a sample that would allow generalizations of findings. Probability sampling also allowed me to use a large sampling frame of 200 children from which 127 children were selected. I initially used the large sampling frame of 200 because I anticipated that not all parents or guardians would fill in the questionnaires or consent forms. I also took into consideration the fact that some children could be excluded due to other reasons. I excluded (N = 23) children who could not be expected to complete the task because of emotional or physical problems as well as children who were generally underperforming in language related tasks; these types of information were elicited from the teachers, see section 3.5.4.3 for more details). I eventually settled on 127 participants because this number is believed to be representative enough in a study that combines qualitative and quantitative methods. Furthermore, this number allowed me to generalize research findings to similar groups of children that are attending private and public schools. Moreover, the number (127) enabled me to generate precise, quantitative, numerical data (see Table 3.1 for further details). Additionally, the 127 participants were held to be a big enough group to constitute a fair representation of children per condition in phase two of the data collection. Here data elicitation took place in accordance with the seven conditions assigned to the children (the conditions are explained in detail in sections 3.5.4.6 and 3.5.5.5).

Purposeful sampling, on the other hand, was relevant in the sense that it enabled me to choose subjects who would be able to do [re]tellings in Chichewa. Hence I targeted children in the central part of Malawi where Chichewa is a dominant language and is spoken by the majority of the population as a mother tongue. Since the children were attending schools that use English as the medium of instruction, the assumption was that these children would also be able to narrate a story in English.

Moreover, a combination of probability and purposeful sampling allowed me to focus on both the depth and breadth of information generated from both qualitative and quantitative designs. Hence these sampling techniques enabled me to focus on both narrative and numeric data.

3.5.3 Procedures per phase of data collection in the main study

Data collection was carried out in two phases, phase 1 and 2 (see the procedures in Table 3.5). The main function of phase one was to gain an understanding of the language background and the language skills of the children. I needed to pre-select a final cohort of children to participate in phase one and phase two of the empirical study.

Table 3.5 Procedures per phase of the data collection and the development of the total number of participants (N) over time

Phase	Procedures	N (Development over time)
Initial sampling	Random sampling	200
Phase 1		
Attrition	Parental consent	-17
	Parent questionnaire (language background)	-23
Pre-selection	Teacher Interviews	-33
Two week interval		
Narrative	Verbalisation of “Frog, where are you?” (Mayer, 1969)	86
Five Months Interval		
Phase 2		
Attrition	Non-returning children plus children who could not produce a [re]telling	45*
Narrative	[Re]tellings of two ‘Mole Stories’	209**

*14 children were not available in phase 2 and 31 children could not produce a [re]telling.

**There were 104 [re]tellings in English from the two “Mole Stories” and 105 [re]tellings in Chichewa from the two “Mole Stories”

3.5.3 Procedures per phase of data collection in the main study

Data collection was carried out in two phases, phase 1 and 2. The main function of phase one was to gain an understanding of the language background and the language skills of the children. I needed to pre-select a final cohort of children to participate in phase one and phase two of the empirical study.

3.5.4 Phase one of the data collection

Phase one of the data collection consisted of the distribution of informed consent forms and language background questionnaires to the participants; a series of teacher interviews (N = 4) and the elicitation of narratives using the book “Frog, where are you?” (Mayer, 1969).

3.5.4.1 Parental consent

The pre-selection process was integrated in this phase. As part of this process, 200 informed consent forms were handed out to parents or guardians through their children or wards. It was anticipated that not all parents or guardians would consent to have their children or wards participate in this study. It was also anticipated that a number of children might transfer to other schools or be excluded from attending the two schools where I conducted the data collection for other reasons explained below.

3.5.4.2 Language background questionnaire

Questionnaires were distributed to those parents who had given consent for their children to participate in the study and were distributed to parents or guardians through their children or wards. The questionnaire was written in English for parents from Kapita and in Chichewa for parents from Mphungu⁶⁶. Both versions of the questionnaire contained questions that helped in sourcing relevant background information regarding all languages spoken by the children, the children's involvement in storytelling, languages used in storytelling, the children's knowledge of oral traditional practices, and languages used when engaging in these oral traditional practices (see both versions of the questionnaire in Appendix 3).

3.5.4.3 Teacher interviews and questionnaires

I also interviewed teachers during the first phase of the main study. I wanted to know if there were children in my large sampling frame who were enrolled in a special education class or children who had been identified as having a learning disability or children who had a major neurological or behavioural disorder (for instance, head injury with hospitalization, autism or conduct disorder). The interviews with the teachers helped in the sense that students with characteristics listed above were excluded from participating in the study (N = 10). Similarly, children with such characteristics were excluded from participating in Pike, Barnes and Barron's (2010) study, as it was believed that this could interfere with its purpose.

⁶⁶ Parents from Kapita private school received a questionnaire in English while parents from Mphungu primary school received a questionnaire in Chichewa. The head teacher at Kapita primary school informed me that English was the medium of communication when communicating with parents while the head teacher at Mphungu primary school said that Chichewa was the medium of communication with parents.

Furthermore, teachers were given a questionnaire. The function of this questionnaire was to gain knowledge about whether or not inferential comprehension is part of the curriculum at the schools. Among other things, this questionnaire contained questions regarding the teaching of text comprehension in English and Chichewa, respectively, in their schools (see Appendix 4). Lastly, I also asked the teachers to compile a list of children from their examination records whose performance was below average. Such children did not participate in this study.

In total (N = 73) of children had to be excluded from the study because, either their parents did not return the consent form (N = 17) or the questionnaire (N = 23) or it did not seem as if they would be able to complete the task for medical reasons (N = 10) or academic reasons (N = 23).

3.5.4.4 Phase 1—Elicitation Study 1: Participants

Participants in elicitation study 1 numbered 86⁶⁷ out of the 127 children who remained from the larger sampling frame. Of these, 28 attended Mphungu, and 58 attended Kapita. There were 46 females and 40 males. Distribution across the age groups is as follows: 30 ten year olds, 23 eleven year olds and 33 twelve year olds.

3.5.4.5 Phase 1—Elicitation Study 1: Material

In phase one, I used Mayer's (1969) storybook, "Frog, where are you?" This storybook is about a boy and his dog that experience several adventures. The boy and the dog are looking for a pet frog that escaped during the night while the boy and the dog were sleeping. The frog story has been used by researchers for eliciting stories in many different languages and situations. For instance, Berman and Slobin (1994) have reported studies that focused on the development of linguistic forms in English, German, Spanish, Hebrew, and Turkish. The frog story has also been used across the world to elicit stories from monolingual and bilingual/multilingual children and adults alike.

3.5.4.6 Phase 1—Elicitation Study 1: Procedure

As alluded to in section 3.5.4.4, the total number of children who participated in this phase of the elicitation study was 86. Each child was assigned to two conditions – condition 6 and condition 7

⁶⁷ There were only 86 children who participated in this phase because the children were assigned to two conditions only unlike in phase two where the children were assigned to six conditions. Unlike in phase 1, phase 2 therefore required the participation of all 127 children.

– in accordance with the language that was used in the storytelling task using Mayer’s (1969) storybook “Frog, where are you?” (See Table 3.6 for more details). Condition 6 consisted of all the narrations in English from Mayer’s storybook and condition 7 consisted of all the narrations in Chichewa from the same storybook.

The researcher – either one of two research assistants or I⁶⁸ – saw each of the children individually in a vacant room at their school. The researcher informed each child that the pictures from Mayer’s (1969) storybook (“Frog, where are you?”) tell a story without words. Then each child went through all the 24 pictures in the storybook on his or her own. This procedure is in line with the procedure suggested in Berman and Slobin (1994); its purpose is to let the children experience the complete story before narrating it. Then each child was asked to go back to the first picture to start telling the story. Each child narrated the story in Chichewa and thereafter in English (that is, after a short pause that lasted 5 minutes). The researcher spoke only in the language of elicitation during the sessions (that is, to elicit narratives in Chichewa the researcher spoke Chichewa; to elicit narratives in English, the researcher spoke only in English).

Table 3.6 Total numbers of children who participated in phase 1

Conditions	N/Kapita	N/Mphungu
6	30	17
7	28	11

*N stands for “number of participants”

3.5.4.7 Phase 1—Elicitation study 1: Rationale and analysis

I used the stories elicited from Mayer’s (1969) storybook in order to assess the participants’ language abilities within a narrative context in both English and Chichewa, using the Narrative Assessment Protocol (NAP) in English developed by Justice, Bowles, Pence and Gosse (2010, p. 229) (see Appendix 5) and a Chichewa version of Justice et al.’s NAP that I developed (see Appendix 6).

⁶⁸ There were also two bilingual (Chichewa and English) research assistants who helped me in this main data collection phase. I trained them a few days prior to the set dates for the one-on-one sessions with children.

The NAP examines five aspects of language: sentence structure, phrase structure, modifiers, nouns and verbs. In general, micro-structural features are the focus of the NAP. The NAP is an important tool in this study as a child's language abilities are seen as prerequisites for narrative text comprehension. According to Justice, Bowles, Pence and Gosse (2010, p. 219), "indices derived from assessment of children's narrative expression that focus on micro-structural features (e.g. grammatical complexity) serve as particularly robust predictors of children's later language and reading comprehension."

Using the Narrative Assessment Protocol (NAP) (Justice, Bowles, Pence & Gosse, 2010), I scored a representative sample of the stories from each of the three age groups (10, 11, and 12 years). In total, I scored five of the narratives from the ten year olds, five from the eleven year olds and five from the twelve year olds (see Appendix 7 where I present a sample of the two stories which were assessed using the NAP).

The results show that the participants have different levels of narrative abilities in either of the languages as demonstrated in the sample of the two stories (see Appendix 7 where each of the stories is followed by the NAP test results). The results provided me with an indication of the children's narrative abilities in either of their two languages. The results also enabled me to compare narrative abilities of children attending different schools.

3.5.5 Phase 2 of the data collection

The second phase of the empirical investigation took place five months after the first phase of the data selection which primarily served to gather background information about the participants, to select the final sample of participants and to record elicitation of stories from "Frog, where are you?" (Mayer, 1969). The elicitation study in phase two is the main data source for the current dissertation.

3.5.5.1 Phase 2—Elicitation Study 2: Participants

Participants in elicitation study 2 were the same 127 children who remained from the larger sampling frame. Of these, 58 attended Mphungu and 69 attended Kapita. There were 64 females and 63 males. Distribution across the age groups is as follows: 44 ten year olds, 40 eleven year olds and 43 twelve year olds.

3.5.5.2 Phase 2—Elicitation Study 2: Material

The elicitation material used in the second – that is, the main – elicitation study comprised of two cartoon films and two aural⁶⁹ stories that capture the events depicted in the cartoon stories.

I used two different cartoon films plus their respective ‘verbal versions’ (in Chichewa and in English) instead of just using one film and the associated story in order to be able to generalize findings to a population sample with a similar background. Pezdek, Lehrer and Simon (1984) argue that the use of two stories in a study enhances generalizability of findings. They used two folktales, “Strega nona” and “A story, a story” in their study. Each folktale had three matched versions: a story book with coloured pictures, a radio version and a television version in colour; these different modalities of presentation were chosen because the main aim of Pezdek, Lehrer and Simon’s (1984) study was to compare their participants’ performance across these three conditions (television, radio and text). The authors specifically wanted to know which medium would enable children to comprehend and retain more information. In a similar manner, I also examine the effects of medium on children’s [re]tellings. However, my study also investigates the effects of language on the narrative text structure in the children’s [re]tellings, which was not the focus in Pezdek et al.’s (1984) study.

As in elicitation study 1, I deliberately chose material that did not require any reading competence from the children as viewing and listening comprehension helps to minimize decoding related problems. In reading comprehension, children may not perform well in given tasks because of inadequate decoding skills related to the written medium.

Furthermore, the study included different modes of presentation in order to assess which mode provides the best stimulus to facilitate [re]tellings. Findings from similar research demonstrate that children remember more visual than auditory content when presented with information through either audiovisual (television) or audio (radio) stimuli (Furnham, de Siena & Gunter, 2002; Gunter, Furnham & Griffiths, 2000; Hayes & Birnbaum, 1980; Hayes, Chemelski &

⁶⁹ As alluded to in the introduction, the word “aural” means the sense of hearing or perceiving something (Hornby, 1995). The children listened to or heard stories that had been pre-recorded. Prior to the storytelling exercise in this phase, I tape-recorded the readings of the ‘verbal versions’ of the cartoon films in English and Chichewa by one of the teachers.

Birnbaum, 1981; Hayes, Kelly & Mandel, 1986; Walma van der Molen & van der Voort, 1997, 2000a, 2000b). Researchers have attributed such results to the phenomenon referred to as the ‘visual superiority effect’ (Rolandelli, 1989). They argue that the visual modality provides more salient and memorable stimuli to children when compared to the auditory modality.

3.5.5.3 Phase 2—Elicitation Study 2: Cartoon films

I used two cartoon films without any verbal content (“The mole and the rocket”⁷⁰ – 1966, and “The mole and the radio”⁷¹ – 1968) developed by the Czech cartoonist Zdeněk Miler in 1956. The two cartoon films were chosen because they are designed for children and have enjoyed great popularity in many countries around the world since their creation. According to Tappe and Hara (2013, p. 316), these cartoon films are easily accessible and have been quite popular “with an international audience of children (the film clips are popular television broadcasts in e.g., Central Europe, India, Japan, China and Russia)”. My aim here was therefore to use cartoon films that would be unfamiliar to African children. The films were also chosen because they depict a fantasy world that children enjoy. According to Jones (2002), the excitement that children get from such films is good for their emotional and physical development.

“The mole and rocket” is a short cartoon film of nine minutes in duration about a little mole that crashes his rocket on a deserted island. After the accident, the rocket is destroyed and its parts are dispersed around the island. However, the mole meets a number of friendly animals that help him reassemble his rocket.

“The mole and the radio” is also a short cartoon film of nine minutes in duration about the same little mole. The mole enjoys loud music from his transistor radio. However, the constant and loud music annoys all the other animals in the forest, and they eventually decide to move away. Eventually the radio’s batteries run down and the mole finds itself all alone, sad and bored. Thankfully, the other animals return because of the return of silence in the forest and the mole is happy to be reunited with his friends and neighbours.

⁷⁰ See http://www.myvideo.de/watch/2532807/Der_kleine_Maulwurf_und_die_Rakete.

⁷¹ See http://www.myvideo.de/watch/7725206/Der_kleine_Maulwurf_und_das_Radio.

3.5.5.4 Phase 2—Elicitation Study 2: Verbal stimulus material

In order to elicit [re-]tellings for verbal material that would be comparable to the narratives elicited after viewing the cartoon films, verbal versions of both cartoon stories had to be constructed.

A postgraduate student in creative writing created the English stories (see Appendix 8). In terms of comparability to film, I instructed the student to adopt the measures used by Meringoff (1980) and Salomon (1984). The student included sufficient details such as events, actions and setting in order to make the stories as comparable in content to film as possible. He constructed the stories using the third figure narrative and the present tense. The present tense was used in order to make the listeners experience events imaginatively. Above all, the present tense “[...] serves to heighten a dramatic event, by making it seem to take place now, before our eyes” (Pascal, 1962, p. 8). The stories were then edited by two mother tongue speakers of English who are lecturers by profession, in Linguistics and English Studies respectively. The participants’ teachers also checked the stories in order to ensure that they were at an appropriate level of grammatical and lexical complexity for the participants.

The lecturers who assessed the English versions of the two ‘Little Mole’ stories were not aware of the current study’s aims and hypotheses. These were not revealed so that their judgment of the comparability between the films and the print versions would not be compromised. This procedure follows Salomon (1984) who involved a panel of three graduate students to assess the comparability of his written and visual stimulus materials. Such assessment is crucial to ensure that children in each of the conditions are exposed to stimulus materials that are comparable in terms of content, humour and explicitness.

In order to develop the Chichewa versions of the stories (see Appendix 9), I requested a specialist in Chichewa to translate the stories. After the stories were translated, they were given to two lecturers in African Languages and Linguistics who are mother tongue speakers of Chichewa to edit them. To ensure that the written stories are as equivalent as possible, another independent person translated them back to English (a phenomenon known as back-translation).

3.5.5.5 Phase 2—Elicitation Study 2: Procedure

In this phase, the 127 children who were selected during Phase 1 were divided into six groups. Each group was assigned a different story [re-]telling condition (condition 1 (a) to condition 5, see more details below). Conditions varied according to the modality of the stimulus material (film versus aural stories) and the language of stimulus presentation (English or Chichewa). Table 3.7 presents details about the total number of children who participated in this phase in accordance with the assigned conditions. As in phase one, to elicit narratives in Chichewa the researcher spoke Chichewa; to elicit narratives in English, the researcher spoke only in English.

Children were seen individually and were assigned to one of the following conditions:

Condition 1 (a): We (my assistants and I) tested children individually in a vacant room at their school. We informed each one of them that they would watch the cartoon film, “The mole and the rocket” (1966). We requested them to pay close attention to it, as they were required to tell a story based on the film. Children in all the assigned conditions were shown still pictures of the main characters in case they did not know the characters in the film, as was done in the pilot study⁷². The instruction that was given to children was, “Tell everything you remember from the cartoon film from the beginning.” Soon after watching the cartoon film, each child narrated a story in English. The entire session was audio-recorded. The children watched the next cartoon film, “The mole and the radio” (1968), after a one-week time lapse so that there was no interference with the experience of the first film. They told a story in English soon after watching the film. The procedures for assessing the comprehension of the second cartoon film were the same as those for the first cartoon film.

Condition 1 (b): The instruction and procedure were the same as those followed in condition 1 (a). Each child watched the first cartoon film (“The mole and rocket”) and narrated a story in Chichewa soon after completing watching the film. Like in condition 1 (a), all of the sessions in the rest of the conditions were audio-recorded. The children watched the next cartoon film, “The mole and the radio” (1968), after a one-week time lapse and told a story in Chichewa soon after watching the film. The procedures for assessing the comprehension of the second cartoon film were the same as those for the first cartoon film.

⁷² Children were shown still pictures of the main characters in all the five conditions.

Condition 2: We tested each child individually in a vacant room at their schools as in the conditions above. Each child sat in a chair to listen to the pre-recorded reading of the story in English constructed from the cartoon film, “The mole and the rocket” (duration in minutes = 12.36). We instructed each child to listen attentively to the story, as they were required to retell it afterwards. As soon as they finished listening to the story, they recalled it in English. The children listened to the pre-recorded reading of the second story in English constructed from the cartoon film, “The mole and the radio” (duration in minutes = 11.36) after a one-week time lapse so that there was no interference with the first story. They retold it in English as soon as they finished listening to the recording. The procedures for assessing the comprehension of the second story were the same as those for the first story.

Condition 3: The procedure followed was the same as that explained in condition 2 above. However, condition 3 differed from condition 2 in that here each child listened to the pre-recorded reading of the story in Chichewa constructed from the cartoon film, “The mole and the rocket” (duration in minutes = 14.19). Each child received instruction from my assistants or I as in condition 2. Soon after listening to the story, they recalled it in Chichewa. The children listened to the pre-recorded reading of the second story in Chichewa constructed from the cartoon film, “The mole and the radio” (duration in minutes = 15.24) after a one-week time lapse so that there was no interference with the first story. They retold the story in Chichewa as soon as they finished listening to the recording. The procedures for assessing the comprehension of the second story were the same as those for the first story.

Condition 4: The procedure followed was identical to the one in condition 3. Each child listened to the pre-recorded reading of the story in Chichewa constructed from the cartoon film, “The mole and the rocket”. However, after listening to the story, children did the recalls in English. Children listened to the pre-recorded reading of the second story in Chichewa constructed from the cartoon film, “The mole and the radio” after a one-week time lapse so that there was no interference with the first story. They retold the story in English soon after they finished listening to the recording. The procedures for assessing the comprehension of the second story were the same as those of the first story.

Condition 5⁷³: The procedure followed was identical to the one in condition 2. Each child listened to the pre-recorded reading of the story in English constructed from the cartoon film, “The mole and the rocket”. After listening to the story, children did the recalls in Chichewa. Children listened to the pre-recorded reading of the second story in English constructed from the cartoon film, “The mole and the radio” after a one-week time lapse so that there was no interference with the first story. They retold the story in Chichewa soon after they finished listening to the recording. The procedures for assessing the comprehension of the second story were the same as those of the first story.

Table 3.7 Total numbers of children who participated in phase 2

Radio story			Rocket story		
Cond's	N/Kapita	N/Mphungu	Cond's	N/Kapita	N/Mphungu
1 (a)	12	6	1 (a)	12	7
1 (b)	8	9	1 (b)	9	8
2	11	7	2	10	6
3	12	9	3	9	8
4	11	6	4	10	6
5	10	8	5	8	7
Total	64/69	45/58	Total	58/69	42/58

*N stands for “number of participants”

*Cond's = Conditions

Highlighted figures represent the number of stories narrated in English (Total N = 104) whereas the figures that are not highlighted represent the number of stories narrated in Chichewa (Total N = 105).

Even though a total of 127 children from both schools were assigned to the conditions described above, there were some children who could not narrate a story in either Chichewa or English. There were seven children from the private school (Kapita) who could not narrate a story after they listened to the two aural stories (“The mole and the rocket” and “The mole and the radio”).

⁷³ In the analysis, the elicitation of narratives from the wordless picture book “Frog, where are you” (Mayer, 1969) which were recorded during Phase 1 of the investigation are called condition 6 and 7, respectively. In condition 6, a child narrated the “Frog, where are you?” story in English, while in condition 7 a child narrated the “Frog, where are you?” story in Chichewa.

Table 3.7 demonstrates that a total of 109 out of the 127 children managed to produce “The mole and the radio” stories whereas a total of 100 out of the 127 children were able to produce “The mole and the rocket” stories. Table 3.8 presents an overview of children from Kapita who could not narrate a story. There were two children who could not narrate a story in English after listening to the aural story (“The mole and the rocket”) in English and there were four children who could not narrate a story in Chichewa after listening to the aurally presented stories (“The mole and the radio” and “The mole and the rocket”) in English (all six of these children were more proficient in Chichewa than in English). Finally, there was one child who could not narrate a story in Chichewa after listening to the aurally presented story (“The mole and the rocket”) in Chichewa.

Table 3.8 Overview of the children who could not narrate a story from aurally presented stimulus material – Kapita (private school)

Condition	Number of children
Condition 2 (Rocket)	2 children (English [re]tellings from English aural stories)
Condition 5 (Radio)	2 children (Chichewa [re]tellings from English aural stories)
Condition 5 (Rocket)	2 children (Chichewa [re]tellings from English aural stories)
Condition 3 (Rocket)	1 child (Chichewa [re]telling from Chichewa aural stories)

Table 3.9 presents an overview of the children from the public school (Mphungu) that could not narrate a story from the aurally presented stimulus materials. There were more children from the public school (24) who could not produce a [re]telling than children from the private school (7) who had difficulties in performing the [re]telling task. All the children from Mphungu who struggled to perform the [re]telling task were more proficient in Chichewa than in English. There were a total of 15 children from Mphungu across a variety of conditions that struggled to perform a [re]telling in English whereas there were a total of nine children who could not narrate a story in Chichewa after listening to the aurally presented story in English.

Table 3.9 Overview of the children who could not narrate a story from aurally presented stimulus material – Mphungu (public school)

Condition	Number of children
Condition 1 (a) (Radio)	2 children (English [re]tellings from film)
Condition 1 (a) (Rocket)	3 children (English [re]tellings from film)
Condition 2 (Radio)	2 children (English [re]tellings from English aural stories)
Condition 2 (Rocket)	2 children (English [re]tellings from English aural stories)
Condition 4 (Radio)	2 children (English [re]tellings from Chichewa aural stories)
Condition 4 (Rocket)	4 children (English [re]tellings from Chichewa aural stories)
Condition 5 (Radio)	4 children (Chichewa [re]tellings from English aural stories)
Condition 5 (Rocket)	5 children (Chichewa [re]tellings from English aural stories)

Apart from a total of 31 children (24 from the public school and 7 from the private school) who struggled to [re]tell stories as described above, there were also some children (N = 14) who were not available for the recording. This was due to the fact that there was a lot of absenteeism because the second phase took place towards the end of term (November, 2012). This was the period after the children had completed writing their end of term examinations. As a result, most children were absent from school as the children and/or parents thought there was nothing useful happening at the school after the final examinations. Furthermore, some children from the private school were not available during the second phase because some parents had removed their children from the private school due to a fee hike at the beginning of the academic year in 2012 (first term of the school calendar begins in September in Malawi). Finally, some children from the public school were not available due to the fact that they had transferred to another school because their parents had found employment at a distance from the school and were no longer living in locations close to the school. Tappe and Hara (2013, p. 319) report that “[...] some of the children at the public school had parents who were working as domestic workers or gardeners and lived at their employers’ residences; consequently, a lot of employment insecurity resulted in frequent school transfers for their children”. Due to the unavailability of some children and also the fact that some children did not manage to narrate a story, there were a total of 104 [re]tellings in English and 105 [re]tellings in Chichewa.

3.6 Data Processing and Analysis

In this section, I provide some details about how the [re]tellings were transcribed (section 3.6.1.1) and how reliable the transcriptions are (section 3.6.1.2). I discuss the analysis of the [re]tellings using narrative and content analysis and provide a rationale behind using a content-analytic method (section 3.6.2). I also provide information on what was identified, described or measured from the [re]tellings (section 3.6.3). Furthermore, I discuss the validity of Heilmann, Miller and Nockerts (2010a) and Heilmann, Miller, Nockerts and Dunaway's (2010b) Narrative Scoring Scheme (NSS) (section 3.6.4). I also discuss how I have revised Heilmann et al.'s (2010a, 2010b) Narrative Scoring Scheme (NSS) (section 3.6.5) here. Subsequently, I provide information on the coding procedure and illustrate how the coding was carried out using the revised version of the NSS (section 3.6.6.1). I also explain how I determined inter-coder agreement and how Krippendorff's (2007) alpha was utilized to perform inter-coder agreement (section 3.6.6.2). Further, I explain how data was analysed quantitatively (section 3.6.7.1) and qualitatively (section 3.6.7.2).

3.6.1 Transcription and reliability

3.6.1.1 Transcription

Four trained bilingual researchers and I transcribed all the [re]tellings in English and Chichewa. We followed Berman and Slobin's (1994) guidelines for transcribing text. In accordance with these guidelines we made sure to use a new text line for each clause "[...] even if this was not a complete sentence or a well-formed subordinate or nonfinite clause" (Berman & Slobin, 1994, p. 658) as demonstrated in Appendix 10. Lower case letters were used in all the transcripts and the researchers and I also used the conventional orthography and spelling in English and Chichewa respectively. The researchers and I also made use of standardized conventions to mark prosodic features of the text such as square brackets for interviewer comments, a dash for a short pause, three dots for a longer pause, comma for a partially falling intonation, a period for a fully falling intonation or end of utterance, a question mark for indicating end of a question, a colon for lengthening of a vowel.

3.6.1.2 Reliability of transcription

I conducted a verification process on all the transcriptions that were done by the trained bilingual researchers in order to check the fidelity of each transcript, while a bilingual researcher who had

not been involved in the transcription process conducted a similar process on all the transcriptions that I had done. In order to resolve disagreements between transcriber and verifier, we followed the procedure suggested by Uccelli and Páez (2007); the transcriber and verifier listened to the tape together and guaranteed that the transcription conformed to the recording. There were no unresolved cases.

3.6.2 Analysis of [re]tellings

I analysed the [re]tellings using narrative and content analysis. Narrative analysis is a method that linguists utilize when doing episodic and story grammar analyses; that is, it is a form of analysis that enables a researcher to reveal properties of a narrative such as units of meaning, macrostructure, cohesion between sentences and perspective⁷⁴ (Smith, 2000, p. 329). In a narrative analysis, a researcher identifies what is said (both form and content) in a story as well as how the story is told (May, 2012, p. 6). For instance, the researcher identifies what elements are included in a story, how the telling of a story in one language is similar or different to the telling of the same story in another language, etc.

Content analysis is defined as a technique that researchers use to “extract desired information from a body of material (usually verbal) by systematically and objectively identifying specified characteristics of the material” (Smith, 2000, p. 314). Content analysis helps a researcher to answer, among other questions, the “what”, “how” and “why” questions in relation to the research questions being investigated (Prasad, 2008, p. 176). Table 3.10 presents the purposes of content analysis in relation to my study. According to Smith (2000, p. 331), content analysis logically follows from narrative analysis. While narrative analysis provides the units of analysis, content analysis interprets these units in the context of the macrostructure and overall meaning of the narrative.

⁷⁴ Perspective refers to “the fact that a narrative contains a point of view toward what happened, telling us what is significant”. Perspective may also refer to a “narrator’s taking into account what the listener needs to know” (Smith, 2000, p. 328).

Table 3.10 The purposes of content analysis (Adapted from Prasad, 2008, p. 176)

Purpose	Questions	Research problems
To describe the characteristics of content	What?	To relate known elements of stories (e.g. story grammar elements or elements of African folktales) to elements reflected in participants' stories
To explain the characteristics of content	How?	To analyse how elements in participants' stories relate or do not relate to elements of story grammar or elements of African folktales
To make inferences about the characteristics of content	Why?	To analyse why certain elements are reflected in participants' stories

I used a content-analytic method because it enabled me to identify information from the [re]tellings that match the elements reflected in the revised version of the Narrative Scoring Scheme (NSS, see details below concerning this scoring schema). Moreover a content-analytic method enables a researcher to differentiate between individuals, groups or culture (Smith, 2000, p. 313). This method therefore assisted me to differentiate between [re]tellings by children attending a private school and [re]tellings by children attending a public school. It also allowed me to distinguish between [re]tellings in English and [re]tellings in Chichewa, [re]tellings from the visual medium and [re]tellings from the auditory medium. It therefore permitted me to distinguish between one [re]telling and another on a macrostructural level, and between one element and another on the microstructural level.

In sum, the content analytic method enabled me to see how one [re]telling differed from another in terms of the elements specified in the revised version of the NSS. It also supported me in identifying elements of a [re]telling which are not specified in the revised version of the NSS. In this way, I was able to integrate elements of a story in my analysis that were not expected or that were not initially considered.

3.6.3 What was identified, described or measured from the [re]tellings

My aim was to identify the most prevalent and widely accepted elements of narratives in my subjects' [re]tellings. To achieve this aim, I developed an adaptation of the Narrative Scoring Scheme (NSS) (Heilmann, Miller & Nockerts, 2010a, pp. 623-624; Heilmann, Miller, Nockerts

& Dunaway, 2010b, pp. 165-166) (see Table 3.11). The NSS was recently developed by the Madison Metropolitan School District SALT working group (Hutchison, 2012, p. 7). It closely follows the canonical story schema as proposed by Stein and Glenn (1979) and its various modifications (Anderson & Evans, 1996). The NSS differs from previous scoring schemas in that it includes “character development”, “referencing” and “cohesion” elements.

Like its well-known predecessors, the NSS is a measurement of narrative macrostructural abilities. It includes seven elements that form a coherent narrative: “introduction”, “character development”, “mental states”, “referencing”, “conflict resolution”, “cohesion” and “conclusion”. Elements in the NSS are linked to a scoring schema; that is, each element may be scored from the highest score, which is “proficient” to the lowest score, which is “minimal/immature”. Scores are assigned according to the presence or absence of story features.

The NSS – as with any other scoring schema for narrative assessment – is a judgment-based measure. Hence it is critical to have proficient understanding of the scoring schema before scoring stories. A level of mastery of the scoring schema will generally enhance reliability of the scores. Hutchison (2012, p. 17) suggests that practice, experience and working closely with peers or colleagues who are accustomed to using the NSS may help in establishing a level of mastery.

For each of the seven elements in the NSS the coder may assign up to five points. According to the points, a story element is assigned: “proficient” for a score of five; “emerging” for a score of three; minimal/immature for a score of 1 (Heilmann, Miller, Nockerts & Dunaway, 2010b, p. 166). Scores of two and four are not defined in the NSS.

The first element included in the NSS is “introduction” (Heilmann et al., 2010b, p. 165). The element “introduction” was included in the scoring schema in order for a researcher to assess how well a story is introduced. The beginning of a story receives the highest rating “proficient” for including both a description of the setting (general setting as well as specific setting) and an introduction of the main characters (Heilmann et al., 2010b, p. 165). The beginning of a story receives the rating “emerging” for including setting and names of characters with no details and descriptions. Finally, the beginning of a story receives the rating “minimal/immature” for not including any setting at all.

The second element in the NSS is “character development” (Heilmann et al., 2010b, p. 165). This element enables the researcher to assess whether main and supporting characters are mentioned and whether a child is able to distinguish between main and supporting characters. The child should provide more detailed descriptions of main character(s) (Heilmann et al., 2010b, p. 165). According to Heilmann et al., a story receives the rating “proficient” when main and supporting characters are mentioned and also when the narrator is able to distinguish between main and supporting characters. A story receives the rating “emerging” when main and supporting characters are mentioned and when the main characters are not distinguished from the supporting characters. Finally, a story receives the rating “minimal/immature” when a child is inconsistent when mentioning the names of characters and also when characters necessary for the development of the plot are not mentioned.

It is also important to assess whether or not subjects are able to express characters’ mental states because mental states are crucial for plot development and advancement (Heilmann et al., 2010b, p. 165). For instance the use of a mental state word such as “decide” or “think” in relation to a plan that a protagonist has in mind is crucial for plot development and advancement. The main function of a mental state word is therefore to enable the protagonist to become active in order to be successful in his plans. Some examples of mental state words include adjectives such as “sad”, “happy” and “angry” and cognitive verbs such as “think”, “decide”, “realise” and “notice” (for instance, “the mole was happy” or “the mole decided to look for the parts of the rocket”. The NSS acknowledges this observation by including “mental states” as a third element (Heilmann et al., 2010b, p. 165). Scores are assigned in the following way: a story receives the rating “proficient” when a variety of mental state words that are necessary for plot development and advancement are used; a story receives the rating “emerging” when a child fails to use a variety of mental state words and also when the child does not make proper use of mental state words such as when he or she uses them inconsistently; a story receives the rating “minimal/immature” if a child does not make use of mental state words for plot development and advancement.

“Referencing” (Heilmann et al., 2010b, p. 165) is element number four of the NSS. Referencing scores reflect whether or not a child provides necessary antecedents to pronouns and whether references are clear, that is, unambiguous, throughout the story. According to Heilmann et al. (2010b, p 165), a story receives the rating “proficient” if a child provides “the necessary

antecedents to pronouns” and if “references are clear throughout the story”. A story receives the rating “emerging” if a child uses referents or antecedents inconsistently. For instance, when a child is narrating a story about male and female characters and uses pronouns such as “she” and “he” inconsistently when referring to the characters, then the story becomes unclear. Finally, a story receives the rating “minimal/immature” if a child narrates a story that makes a listener confused because of excessive use of pronouns and also because of not using appropriate words to make the story clear.

The next element, element number five, is “conflict resolution” (Heilmann et al., 2010b, p. 165) because it is crucial in a story to see character(s) encountering and resolving problems for the sake of the advancement of the story’s plot. In order to achieve scores for the element “conflict resolution” a story needs to have all the conflicts and resolutions that are necessary for plot development and advancement (Heilmann et al., 2010b, p. 165). According to Heilmann et al., a story receives the rating “proficient” if all conflicts and resolutions are included in the story. A rating of “emerging” is received if a child includes conflicts and resolutions that are not detailed or if the child does not include in a story all conflicts and resolutions necessary for plot development and advancement. A rating of “minimal/immature” is received if a child provides conflicts in a story without resolutions and vice versa or if the child does not manage to provide in a story many conflicts and resolutions that are necessary for plot advancement.

Element number six of the NSS is “cohesion” (Heilmann et al., 2010b, p. 165). As was pointed out in chapter 1, section 1.3, cohesion is central for the quality of a ‘good’ story. Cohesion scores are meant to assess whether events follow a logical order, whether smooth transitions are provided between events and whether subjects are able to place greater emphasis on critical events. According to Heilmann et al. (2010b, p. 165), cohesion scores are assigned in the following manner: a rating of “proficient” is received if a story has the following characteristics: events follow a logical order, smooth transitions are provided and critical events are included; a story gets the rating of “emerging” if it does not satisfy the characteristics listed for the “proficient” rating for this element. Finally, a story gets the rating of “minimal/immature” if smooth transitions are not included.

“Conclusion” (Heilmann et al., 2010b, p. 166) is the last element in the NSS. When scores for conclusion are assigned, the researcher assesses whether a story has been brought to a

satisfactory ending. According to the NSS, a narrative will receive the rating “proficient” for conclusion if the following features are present in the story: a story is clearly concluded using a general concluding statement such as “and they were together again happy as could be” (Heilmann et al., 2010b, p. 166). A narrative will receive the rating of “emerging” if a child concludes a specific event towards the end but does not include a general statement such as the one mentioned for the “proficient” rating for this element. Finally, a narrative will receive the rating “minimal/immature” if a child stops narrating and it is not clear to the listener whether the child has finished narrating the story or not.

Table 3.11 The Narrative Scoring Scheme (Heilmann, Miller & Nockerts, 2010a, pp. 623-624; Heilmann, Miller, Nockerts & Dunaway, 2010b, pp. 165-166)

Characteristic	Proficient	Emerging	Minimal/Immature
Introduction	<p>Setting</p> <ul style="list-style-type: none"> -Child states general place and provides some detail about the setting (e.g., reference to the time of the setting: daytime, bedtime, or season). -Setting elements are stated at appropriate place in story. <p>Characters</p> <ul style="list-style-type: none"> -Main characters are introduced with some description or detail provided. 	<p>Setting</p> <ul style="list-style-type: none"> -Child states general setting but provides no detail. -Description or elements of story are given intermittently through story. -Child may provide description of specific element of setting (e.g., the frog is in the jar). <p>OR</p> <p>Characters</p> <ul style="list-style-type: none"> Characters of story are mentioned with no detail or description. 	<p>Setting</p> <ul style="list-style-type: none"> Child launches into story with no attempt to provide the setting.
Character development	<ul style="list-style-type: none"> -Main character(s) and <i>all</i> supporting character(s) are mentioned. -Throughout story it is clear that child can discriminate between main and supporting characters (e.g., more description of and emphasis on main character(s)). -Child narrates in first person using character voice (e.g., “You get out of my tree,” said the owl). 	<ul style="list-style-type: none"> -Both main and active supporting characters are mentioned. -Main characters are not clearly distinguished from supporting characters. 	<ul style="list-style-type: none"> -Inconsistent mention is made of involved or active characters. -Characters necessary for advancing the plot are not present.

Mental states	<p>-Mental states of main and supporting characters are expressed when necessary for plot development and advancement.</p> <p>-A variety of mental state words are used.</p>	<p>-Some mental state words are used to develop character(s).</p> <p>-A limited number of mental state words are used inconsistently throughout the story.</p>	<p>-No use is made of mental state words to develop characters.</p>
Referencing	<p>-Child provides necessary antecedents to pronouns.</p> <p>-References are clear throughout story.</p>	<p>-Referents/antecedents are used inconsistently.</p>	<p>-Pronouns are used excessively.</p> <p>-No verbal clarifiers are used.</p> <p>-Child is unaware listener is confused.</p>
Conflict resolution	<p>-Child clearly states all conflicts and resolutions critical to advancing the plot of the story.</p>	<p>-Description of conflicts and resolutions critical to advancing the plot of the story is underdeveloped.</p> <p>OR</p> <p>-Not all conflicts and resolutions critical to advancing the plot are present.</p>	<p>-Random resolution is stated with no mention of cause or conflict.</p> <p>OR</p> <p>-Conflict is mentioned without resolution.</p> <p>OR</p> <p>-Many conflicts and resolutions critical to advancing the plot are not present.</p>
Cohesion	<p>-Events follow a logical order.</p> <p>-Critical events are included, while less emphasis is placed on minor events.</p> <p>-Smooth transitions are provided between events.</p>	<p>-Events follow a logical order.</p> <p>-Excessive detail or emphasis provided on minor events leads the listener astray.</p> <p>OR</p> <p>-Transitions to next event are unclear.</p> <p>OR</p> <p>-Minimal detail is given for critical events.</p> <p>OR</p> <p>-Equal emphasis is placed on all events.</p>	<p>-No use is made of smooth transitions.</p>
Conclusion	<p>-Story is clearly wrapped up using general concluding statements such as “and they were together again happy as could be.”</p>	<p>-Specific event is concluded, but no general statement is made as to the conclusion of the whole story.</p>	<p>-Child stops narrating, and listener may need to ask if that is the end.</p>

Scoring: Each characteristic receives a scaled score of 0–5. Proficient characteristics = 5; Emerging = 3; Minimal/immature = 1. Scores between (i.e., 2 and 4) are undefined; use judgment. Scores of zero and NA are defined below. A composite score is achieved by adding the total of the characteristic scores. Highest score = 35.

A score of zero is given for child errors (such as telling the wrong story, conversing with examiner, not completing/refusing task, using wrong language and creating inability of coder to comprehend story in target language, abandoned utterances, unintelligibility, poor performance, or components of rubric are in imitation-only).

A score of NA (non-applicable) is given for mechanical/examiner/operator errors (such as interference from background noise, issues with recording such as cut-offs or interruptions, examiner quitting before child does, examiner not following protocol, or examiner asking overly specific or leading questions rather than open-ended questions or prompts).

3.6.4 Validity of the Narrative Scoring Scheme

I used the Narrative Scoring Scheme (NSS) (Heilmann, Miller & Nockerts, 2010a; Heilmann, Miller, Nockerts & Dunaway, 2010b) as a starting point to develop my own scoring schema because it is a contemporary schema which uses well established measures of macrostructural narrative language (Hutchison, 2012, p. 13). A clear advantage of the Narrative Scoring Scheme (Heilmann et al., 2010a) when compared to alternative scoring schemas is that it is analytical in nature. According to Carr (2000, p. 209), “[a]n analytic rating scale uses several subscales, which may or may not be summed or averaged together to form a composite total, to rate characteristics of a composition separately”. The NSS, according to Heilmann et al. (2010a), is an important tool to use because it is both a sensitive and flexible measure of narrative organisation. It is a sensitive measure of narrative organisation because the “[c]omposite NSS score provides a single estimate of children’s overall narrative competence that is sensitive for young children producing narrative retells” (Heilmann et al., 2010a, p. 616). In addition, the NSS is regarded as a flexible measure of narrative organisation because it may be used when analysing stories elicited from language impaired children and second language learners. It is also an appropriate tool to use when investigating the development of narrative skills. It is also a tool that may be used to identify children who are experiencing language learning difficulties.

Another advantage of the NSS is that it puts an emphasis on quality of recall as shown in the description of the seven story grammar elements in section 3.6.3. It does not emphasise the amount of recall in terms of purely quantitative measures such as length of the narrative, which is assessed by looking at total number of events, clauses, mean length of utterance, etc. Placing an emphasis on the amount of recall comes with the danger that the researcher might assign high scores to long stories that are narrated in any logical order and lack major story elements as defined by the canonical narrative text structure. An emphasis on events count may make the

researcher ignore quality of recall. Researchers agree on the importance of stressing quality of recall when analysing [re]tellings. For instance, van den Broek et al. (2005, p. 127) argue that

[t]he emphasis in assessment should be on the *quality* of recall, question-answering, and so on, rather than on the sheer *amount*. Consider, for example, using memory as a measure of comprehension. As skills develop, the amount recalled may increase but, more importantly, the pattern of recall will change, focusing more and more on those events or facts that have complex connections. A simple count of the number of events or facts recalled gives an inadequate picture of an individual's skills.

Alternatives to the NSS are scoring schemas such as the Renfrew Bus Story (Cowley & Glasgow, 1994), the Test of Narrative Language (Gillam & Pearson, 2004), the Strong Narrative Assessment Procedure (SNAP, Strong, 1998), the Index of Narrative Complex (INC, Petersen, Gillam & Gillam, 2008) and the Narrative Assessment Protocol (NAP, Bliss, McCabe & Miranda, 1998). However, each of these has its limitations.

Regarding the Renfrew Bus Story (Cowley & Glasgow, 1994), Petersen, Gillam and Gillam (2008) indicate that it is a useful scoring schema when analysing stories narrated by preschool children; that is, children who are younger than seven years old. My study targets school-aged children, hence scoring schemas for younger children are not relevant.

The Test of Narrative Language (Gillam & Pearson, 2004) has been identified as a useful tool for assessing stories narrated by children aged six years to eleven years and eleven months. However, the Test of Narrative Language has been questioned because “reliability calculations” were based on a small “portion of the normative sample” (Petersen, Gillam & Gillam, 2008, p. 120). It has also been questioned because repeated tests could not produce similar results. Questionable reliability calculations also raise concerns about the stability or consistency of scores over time and across raters. In order to avoid such problems, the revised version of the NSS has included rubrics for scores that were not defined in Heilmann et al.'s (2010a, 2010b) NSS. Furthermore, it has included detailed descriptions and examples to enable a scorer to award scores ranging from zero to five.

The Strong Narrative Assessment Procedure (SNAP, Strong, 1998), another measure of macrostructural language, has been criticised as having “more weaknesses than strengths’ (Petersen, Gillam & Gillam, 2008, p. 120). One main criticism, according to Petersen, Gillam and Gillam (2008) is that it requires a lengthy scoring process and does not provide valid evidence.

The Index of Narrative Complex (INC, Petersen, Gillam & Gillam, 2008) is another scoring schema that measures the complexity of children’s narratives. Here children’s narratives are assessed in stages (pretest 1, pretest 2 and posttest). Besides this, subjects under investigation undergo the narrative intervention programme after pretest 2. I therefore find the INC only valuable if it is used as a means for monitoring progress in children who are receiving some form of intervention. Because the INC is designed to evaluate changes in a variety of narrative skills after intervention (Petersen et al., 2008), it is not an ideal scoring schema for this study.

Finally, regarding the Narrative Assessment Protocol (NAP, Bliss, McCabe & Miranda, 1998), it is most often used with the discourse genre “personal narration” and, like the Index of Narrative Complex (INC, Petersen, Gillam & Gillam, 2008) it incorporates a strong element of intervention. Even though the NAP is a valid scoring schema that “assesses diverse patterns of discourse simultaneously with one approach” (Bliss et al., 1998, p. 348), it is ideal for scoring personal narration that reflects the functional discourse abilities of children, such as topic maintenance and fluency.

3.6.5 How I adapted Heilmann et al.’s (2010a, 2010b) Narrative Scoring Scheme (NSS)

I revised the NSS rubric in an attempt to improve its reliability. Table 3.12 presents the revised version of the NSS specifically for scoring “Frog, where are you?” stories; Appendix 11 and Appendix 12 present the two versions used specifically for scoring the rocket and radio stories respectively. I revised the NSS in such a way that it includes rubrics for scores of two and four. The rubrics for these scores are not defined and are given based on the coder’s judgement in Heilmann et al.’s (2010a, 2010b) version of the NSS.

In the revised version of the NSS, the rubric for awarding a score of four for the “introduction” element differs slightly from the “proficient” rating (a score of five) for the same element in the sense that a score of four is awarded when a story includes all the details specified for the

“proficient” rating in Heilmann et al.’s (2010a, 2010b) NSS but leaves out specific setting elements such as reference to the time of the setting: daytime, bedtime, season. The rubrics for awarding the score of two differ slightly from the “emerging” rating (a score of three) for the same element, in the sense that a score of two is awarded when a story does not state where the character(s) are situated but other specific setting elements are mentioned. Scores of five, three and one are awarded in a similar way to that in Heilmann et al.’s (2010a, 2010b) NSS. Unlike in Heilmann et al.’s NSS, a rubric for a score of 0 is provided for each of the seven elements in the revised scoring schema (see Table 3.12 on the criteria for awarding a score of 0 for each of the seven elements).

Scores for the second element, “character development”, are assigned in the following way in the revised version of the NSS: a story is awarded a score of four for including all the elements required for the “proficient” rating as specified in Heilmann et al.’s (2010a, 2010b) NSS but in a case where the story is not narrated in first person using character voice. A story is awarded a score of two when main character(s) and all supporting character(s) are mentioned but the characters are not developed. A score of two is also awarded when main character(s) and all supporting character(s) are mentioned in a story but the characters are not developed in line with the story. Like in the first element, scores of five, three and one are awarded in a similar way to that in Heilmann et al.’s (2010a, 2010b) NSS.

I also revised the NSS so that rubrics for scoring the “mental states”, “referencing”, “conflict resolution” and “cohesion” elements are clarified. Regarding the “mental states” element, a story receives a “proficient” rating (a score of five) when it includes five mental state words, a score of four is awarded when a story includes four mental state words, a score of three is awarded when a story includes three mental state words, a score of two is awarded when a story includes two mental state words and a score of one is awarded when a story includes only one mental state word.

Regarding the fourth element, “referencing”, a story receives a score of five when it includes all the necessary antecedents to pronouns and references are clear throughout. A story receives a score of four when it includes all the necessary antecedents and references except for one or two referencing errors. A story receives a score of three in a similar manner to Heilmann et al.’s (2010a, 2010b) NSS but such a score is awarded when a child makes three or four referencing

errors. A score of two is awarded when a child uses referents or antecedents inconsistently and a story contains five or six referencing errors. Finally, a score of one is awarded when pronouns are used excessively in a story in a similar way to the scoring in Heilmann et al.'s (2010a, 2010b) NSS but such a score is given when a child makes seven or eight referencing errors in their story.

In order to achieve scores for the fifth element, “conflict resolution”, a story receives a score of five if it includes all the 15 conflicts and their resolutions (see Appendix 13 for the list of conflicts and resolutions). A score of four is received if a story includes 12 conflicts and their resolutions. A story receives a score of three if a child mentions nine conflicts and their resolutions. A score of two is awarded if a child includes in a story 6 conflicts and their resolutions. Finally, a story gets a score of one if a child mentions 3 conflicts and their resolutions.

Scores for the sixth element, “cohesion”, are awarded as follows: a score of five is received if a story fulfills the descriptions provided in Heilmann et al.'s (2010a, 2010b) NSS but it should include a variety of five smooth transitions and five complex sentences. A score of four is awarded if a story fulfills the descriptions given in Heilmann et al.'s scoring schema for this element for a score of five but the story should contain a variety of four smooth transitions and four complex sentences. For a score of three to be received, the revised version takes into account the descriptions given in Heilmann et al.'s NSS for a score of three but the story should have a variety of three smooth transitions and three complex sentences. A score of two is received if the story fulfills Heilmann et al.'s descriptions for a score of three for this element but it should include two smooth transitions or two complex sentences. A story receives a score of one if it fulfills the descriptions provided in Heilmann et al.'s scoring schema for a score of one but it should contain one smooth transition and one complex sentence.

Regarding the final element, “conclusion”, scores of five, three and one are received when a story fulfills the descriptions for these three scores provided in Heilmann et al.'s scoring schema. Additionally, a story receives a score of four if it is clearly wrapped up using general concluding statements such as “and they were together again happy as could be” but the child does this without concluding a specific event, that is “that the boy found his frog, took one of its babies and went back home”. Finally a score of two is received when a specific event is not concluded,

no general statement is made as to the conclusion of the whole story but at least the child signals that it is the end of the narration.

Table 3.12 Schema for scoring “Frog, where are you?” stories – adapted from Heilmann et al.’s (2010a, 2010b) Narrative Scoring Scheme (NSS)

Characteristic	Explanation, example and score
Introduction	<p>-Child states that the boy and his pets (the dog and the frog) were in the bedroom or the events at the beginning were taking place in the bedroom (with reference to the time of the setting: daytime, bedtime, season). Other specific setting elements are stated at appropriate places in the story (e.g. “the frog was in the jar”, “the boy and the dog were on the bed”). Child introduces the main characters by name and provides some description or detail. (5 marks)</p> <p>-Child provides setting i.e. “the boy and his pets (the dog and the frog) were in the bedroom” but does not provide further detail about the setting (e.g., reference to the time of the setting: daytime, bedtime, season). He or she also provides elements of specific setting (e.g. “the frog was in the jar”, “the boy and the dog were on the bed”). Child introduces the main characters by name and provides some description or detail. (4 marks)</p> <p>-Child states that the boy and his pets (the dog and the frog) were in the bedroom but does not provide reference to the time of the setting. Other specific setting elements are stated at appropriate places in the story (e.g. “the frog was in the jar”, “the boy and the dog were on the bed”) OR child mentions the boy and his pets (the dog and the frog) with no detail or description OR child mentions the names of characters in a language other than the one used in the task but with detail or description. (3 marks)</p> <p>-Child does not mention that the boy and his pets (the dog and the frog) were in the bedroom (OR child provides setting but the wrong one) but provides some description of two or more specific elements of setting (e.g. “the frog was in the jar”, “the boy and the dog were on the bed”). (2 marks)</p> <p>-Child does not mention that that the boy and his pets (the dog and the frog) were in the bedroom but provides a description of one specific element of setting (e.g. “the frog was in the jar”, “the boy and the dog were on the bed”). (1 mark)</p>

	<p>-Child does not mention setting of the story nor does he or she mention specific elements of setting. (0 mark). (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)</p>
<p>Character development</p>	<p>-Child mentions the main character(s) and all supporting character(s). Throughout story it is clear that child can discriminate between main and supporting characters (e.g., more description of and emphasis on main character(s)). Child narrates in first person using character voice (e.g., “You get out of my tree”, said the owl.). (5 marks)</p> <p>-Child mentions the main character(s) and all supporting character(s). Throughout story it is clear that child can discriminate between main and supporting characters (e.g., more description of and emphasis on main character(s)). However, child does not narrate in first person using character voice. (4 marks)</p> <p>-Child mentions the main character(s) and all supporting character(s), but the main character is not clearly distinguished from supporting characters, e.g., child does not describe the boy in more detail. OR Child manages to provide details for both the main and supporting characters but the characters’ names are in another language. (3 marks)</p> <p>-Child mentions the main character(s) and all supporting character(s) but the characters are not developed. OR Child mentions the main character(s) and all supporting character(s) but the characters are not developed in line with the story. (2 marks)</p> <p>-Inconsistent mention of involved or active characters. Characters necessary for advancing the plot are not present. No narration in first person. (1 mark)</p> <p>-Child tells a story other than the one presented to him or her (0 mark). (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)</p>
<p>Mental states</p>	<p>-Mental and emotional states of main and supporting characters are expressed when necessary for plot development and advancement. A variety of five or more mental and emotional state words are used (examples of mental state words: “decided”, “forgot”, “knew”, “thought”, “remember”; examples of emotional state words: “sad”, “happy”, “scared”, “angry”, “upset”). (5 marks)</p> <p>-Mental and emotional states of main and supporting characters are expressed</p>

	<p>when necessary for plot development and advancement. A variety of four mental and emotional state words are used. (4 marks)</p> <p>-A variety of three mental and emotional state words are used. (3 marks)</p> <p>-Child makes use of two mental and emotional state words. (2 marks)</p> <p>-Child makes use of one mental or emotional state word. (1 mark)</p> <p>-Child does not mention any mental or emotional state words. (0 mark)</p>
Referencing	<p>-Child provides necessary antecedents to pronouns and references are clear throughout story. (5 marks)</p> <p>-Child provides necessary antecedents to pronouns and references are clear throughout story except for 1 or 2 referencing errors. (4 marks)</p> <p>-Referents/antecedents are used inconsistently. Child makes 3 or 4 referencing errors. (3 marks)</p> <p>-Referents/antecedents are used inconsistently. Child makes 5 or 6 referencing errors. (2 marks)</p> <p>-Pronouns are used excessively OR inadequately. No verbal clarifiers are used. Child is unaware listener is confused. Child makes 7 or 8 referencing errors. (1 mark)</p> <p>-Child makes 9 or more referencing errors. (0 mark)</p>
Conflict resolution	<p>-Child mentions all the 15 conflicts and their resolutions (see a list of conflicts and resolutions in the Appendix 13). (5 marks)</p> <p>-Child mentions 12 conflicts and their resolutions. (4 marks)</p> <p>-Child mentions 9 conflicts and their resolutions (3 marks)</p> <p>-Child mentions 6 conflicts and their resolutions (2 marks)</p> <p>-Child mentions 3 conflicts and their resolutions (1 mark)</p> <p>-Child does not mention any conflict or resolution (0 mark)</p>
Cohesion	<p>-Events follow a logical order. Critical events are included, while less emphasis is placed on minor events. Smooth transitions are provided between events i.e. child makes use of a variety of five or more transitional markers such as “suddenly”, “then”, “so”, “after that”, “later on”, “because”, “even though”. Child also makes use of a variety of five or more complex sentences (sentences containing subordinate clauses beginning with words such as “while”, “when”,</p>

“who”, “which”, “where”, “what”, “how” e.g. “when he woke up, he found that his frog was gone” and also other complex sentences containing subordinate clauses that are not signaled by “wh-” words e.g. “he didn’t know that it was an animal”). **(5 marks)**

-Events follow a logical order. Critical events are included, while less emphasis is placed on minor events. Child makes use of a variety of **four** transitional markers. **AND/OR** Child also makes use of a variety of **four** complex sentences containing subordinate clauses. **(4 marks)**

-Events follow a logical order, excessive detail or emphasis provided on minor events leads the listener astray **OR** transitions to next event are unclear (child makes use of a variety of **three** transitional markers) **OR** child makes use of a variety of **three** complex sentences containing subordinate clauses **OR** minimal detail is given for critical events **OR** equal emphasis is placed on all events. **(3 marks)**.

Note: 3 marks may be awarded where child uses a variety of four or more transitional markers OR a variety of four or more complex sentences but provides minimal detail for critical events.

-Events do not follow a logical order, excessive detail or emphasis provided on minor events leads the listener astray **OR** transitions to next event are unclear (child makes use of a variety of **two** transitional markers) **OR** child makes use of a variety of **two** complex sentences containing subordinate clauses **(2 marks)**

-Events do not follow a logical order, transitions to next event are unclear (child makes use of **one** transitional marker) **OR** child makes use of **one** complex sentence containing a subordinate clause. **(1 mark)**

-No use is made of smooth transitions. **(0 mark)** (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)

Conclusion

-Story is clearly wrapped up using general concluding statements such as “and they were together again happy as could be.” **(5 marks)**

-Story is clearly wrapped up using general concluding statements such as “and they were together again happy as could be” but child does this without concluding a specific event e.g. that the boy found his frog, took one of its babies and went back home. **(4 marks)**

-Specific event (in line with the story) is concluded, but no general statement is made as to the conclusion of the whole story. **(3 marks)**

-Specific event is not concluded, no general statement is made as to the conclusion of the whole story but at least child signals that it is the end of the narration. **(2 marks)**

-Child stops narrating, and listener may need to ask if that is the end (also child stops narrating without concluding a specific event or events in line with the story). **(1 mark)**

-Child concludes the story by stating other events other than the ones presented in the story. **(0 mark)** (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)

3.6.6 Coding and inter-coder agreement

3.6.6.1 Coding

In a similar way to Heilmann et al.'s (2010a, 2010b) Narrative Scoring Scheme (NSS), the revised version that I developed measures the extent to which each of the story grammar elements ("introduction", "character development", "mental states", "referencing", "conflict resolution", "cohesion", and "conclusion") is produced in a narrative. As explained in section 3.6.5, the revised version of the NSS requires that each element be given a score ranging from 0 to 5.

I analysed all the [re]tellings by awarding a score to each of the seven elements using guidelines provided by the scoring schema that I adapted from the NSS (see Table 3.12). I awarded a score of zero for a performance that was incomplete or off-task, that is, a performance that did not comply with the definition of the story element as presented in Table 3.12. I awarded a score of one for a poor performance as per guidelines in the revised version of the NSS, in other words, one was awarded for minimal presence of the story element or immature performance. The revised version of the NSS also guided me on how to award a score of three for an element that reflected emergent skills and a score of five for a proficient performance. I also awarded scores of two and four in accordance with the revised version of the NSS; these two scores, as already alluded to, are not specifically described in Heilmann et al.'s NSS. As stipulated in Heilmann et

al.'s NSS, I assigned a composite NSS score (the sum of the scores for each story element) to each [re]telling, thereafter.

3.6.6.2 Inter-coder agreement

The reliability of my scoring was assessed by comparing it to scores obtained from two independent coders; one for the transcripts of the English narratives, one for the transcripts of the Chichewa narratives. The first coder is a mother tongue speaker of English and was at the time a postgraduate student in linguistics, specializing in syntax. The second coder is a mother tongue speaker of Chichewa and was at the time a PhD student specialising in African urban and youth language. Each of the second coders scored 30% of the transcripts, which were randomly selected, in their respective languages. Neither of the coders had access to my scores. Coders familiarised themselves with the scoring schema and scored the selected transcripts independently of one another and without consultation with me.

The statistician who assisted me with all statistical analyses as discussed in section 3.6.7.1 below performed the inter-coder agreement analysis using Krippendorff's alpha (Hayes & Krippendorff, 2007). There are standard guidelines that are maintained by Krippendorff's alpha in order to determine what is considered a reliable result (Hutchison, 2012). Krippendorff's alpha considers two reliability scale points, 1.000 for perfect reliability and 0.000 for the absence of reliability (Hayes & Krippendorff, 2007, p. 82). Furthermore, according to Hutchison (2012), Krippendorff's alpha stipulates that if the comparison of scores obtained by the two coders yields a value of .67 and above, the reliability rating is "acceptable". However, if the comparison of scores obtained by the two coders yields a value of .80 and above the reliability rating is "favourable". The results of the statistical analysis for Krippendorff's alpha are presented in Table 3.13 below.

Table 3.13 Inter-coder reliability for data coding

Elements	Rocket (Chichewa)	Radio (Chichewa)	Rocket (English)	Radio (English)	Overall
Introduction	0.4091	0.5938	0.0306	0.0436	0.3278
Character development	-0.2775	0.2886	0.8257	0.2291	0.2911
Mental states	-0.0722	0.3576	0.8663	0.9102	0.6305
Referencing	-0.2112	-0.3382	0.4503	0.5537	0.4543
Conflict resolution	0.2946	0.6766	0.5600	0.6390	0.6296
Cohesion	0.0990	0	0.7010	0.6077	0.3845
Conclusion	-0.2316	0.4514	0.5675	0.4063	0.3581
Sums	0.2450	0.7850	0.8779	0.7586	0.7474

The results in Table 3.13 above show that the inter-coder agreement values for stories narrated in Chichewa are unacceptable except for the element “conflict resolution”. However, it is noteworthy that despite the discrepancies between the two coders the “sums” for the inter-coder agreement reliability rating (see the bottom of Table 3.13) for the radio story in Chichewa is acceptable (0.7850).

However, in contrast to the low inter-coder agreement scores for Chichewa, the inter-coder agreement scores for the English narratives were much higher: Inter-coder agreement scores for stories narrated in English are either acceptable and even favourable such as 0.8257 for “character development” (rocket story) and for “mental states”, 0.8663 and 0.9102 (rocket and radio stories respectively). The “sums” for the inter-coder agreement reliability rating for the rocket story in English and radio story in English (see the bottom of Table 3.13) are favourable and acceptable respectively (0.8779 and 0.7586).

Since the values for inter-coder agreement reliability were generally poorer than expected, I met with both of the second coders in order to discuss the differences and the applicability of the scoring schema. We went over the analyses together and discussed how and why scores had been assigned. The coders agreed that familiarity with the scoring schema is a decisive factor and we

reached consensus on the scoring schema and the criteria for assigning scores. As a consequence I also adjusted my own scoring techniques. This was done before the statistical analysis of data.

When I discussed the degree of disagreement between our scores with the second Chichewa coder we agreed that the main reason for the discrepancies in our scores was the fact that the Narrative Scoring Scheme (NSS) was developed for stories narrated in English. It was therefore difficult to apply the descriptions of how to assess the presence of story elements – that are meant for a story in English – to a story in Chichewa.

For example, when we consider the description given for the “referencing” element (for example, for a score of 5, a child is meant to provide necessary antecedents to pronouns and make clear references throughout story). It is comparatively easy to trace antecedents and pronouns in a story narrated in an isolating language like English but not so in Chichewa. This is due to the fact that in an agglutinative language such as Chichewa, antecedents and pronouns do not stand “on their own”. Hence making a judgement regarding the use of antecedents and pronouns is more straightforward in stories narrated in English than those narrated in Chichewa. Besides this, the Chichewa language has null subjects and objects and it relies on subject and object agreement markers for a sentence to be grammatical. Because of this, there were instances when the second Chichewa coder and I could not agree on which phrase, *mfuko ija* (“that mole”) and *mfuko uja* (“that mole”) or *mfuko ija inadzapitanso* (“that mole went again”) or *mfuko uja anadzapitanso* (“that mole went again”) is correct in relation to the scoring of the “referencing” element. However, we eventually resolved that the latter phrases are correct after verifying this with another mother tongue speaker of Chichewa who is also a lecturer in African linguistics.

In addition, the descriptions provided in Heilmann et al.’s (2010a, 2010b) NSS do not include detailed examples. Even though I provided detailed examples in the revised version of the NSS and also despite the fact that the NSS was revised to include rubrics for scores of four and two which were not clearly defined in Heilmann et al.’s NSS, the results for the reliability rating illustrate that the NSS is not best suited for stories narrated in African languages such as Chichewa. This is because of further disagreements between the second Chichewa coder and me regarding the way the children used neutral names of sea animals that do not change when in plural form. For instance, some children attached the plural marker *zi-*, to a word *nyama*

(“animal(s)”) that does not change when in plural form (*zinyama* and *nyama* are both used in conversation but the correct word is *nyama*).

Furthermore, it was easier for the children to provide names of animals when narrating the rocket story in English but difficult to do so when narrating the same rocket story in Chichewa. This is because the story is alien to children accustomed to living inland and it contains names of sea animals that are unfamiliar to such children. Moreover, some of these sea animals do not have equivalent names in the Chichewa language. As a result, the children could not mention names of the sea animals when narrating stories in Chichewa because of a lack of vocabulary for the sea animals in Chichewa language⁷⁵. Consequently, it was possible for a child to get “better” scores on the “character development” element from a story in English than a story in Chichewa.

3.6.7 Quantitative and qualitative analyses

The data analysis focused mainly on examining the effects of language and medium on the narrative text structure in the [re]tellings of multilingual children. In order to achieve this aim, quantitative analyses were used (section 3.6.7.1). The study also aimed at investigating whether the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning conform to the NSS, in other words, whether the [re]tellings conform to the canonical scoring schemas, as the NSS was developed from the canonical scoring schemas mentioned in chapter 1 (see Tables 1.5 and 1.6). This latter aim was achieved through the use of qualitative analyses (section 3.6.7.2).

3.6.7.1 Quantitative analyses

In order to achieve the first aim stated above, the narrative assessment measure that I adapted from the Narrative Scoring Scheme (NSS) was used. Additionally, in order to effectively answer two of the study’s research questions (Does language have an effect on the narrative text structure in the [re]tellings of multilingual children with Chichewa as their L1 and English their L2 and Does the medium of the stimulus presentation (picture book, film, aural presentation) influence the children’s narrative text structure?), a statistician familiar with MATLAB[®], a high-level language and interactive environment for numerical computation, visualisation, and

⁷⁵ The lecturer who translated the stories from English to Chichewa encountered a similar problem.

programming⁷⁶, was consulted to conduct appropriate analysis of the NSS scores. MATLAB is a widely used, powerful, multi-purpose tool with superior data visualisation options, which integrates all commonly used statistical operations and tests.

Firstly, the statistician performed the chi-square goodness-of-fit test in order to see if the data were roughly normal. He advised that if the data were normal, he could perform a two-sample F-test, but if the data were not normal, he could use the Wilcoxon test⁷⁷ instead. The results showed that data were roughly normal and because of this, the Wilcoxon test was not conducted. Where data were roughly normal and had similar variances, a one-way analysis of variance (a one-way ANOVA)⁷⁸ was conducted. However, in the cases where data were roughly normal and did not necessarily have equal variances, a two-sample t-test analysis⁷⁹ was performed. The following data were roughly normal and did not necessarily have equal variances while the rest of the data had similar variances:

1. Radio story
 - a. Condition 1 (a) – element 4
 - b. Condition 3 – elements 1 and 4

2. Rocket story
 - a. Condition 1 (a) – elements 2, 5 and 6)
 - b. Condition 1 (b) – elements 1, 3, 4, 5 and 7
 - c. Condition 4 – elements 2, 3 and 4

⁷⁶ <http://www.mathworks.com/products/matlab/>

⁷⁷ The Wilcoxon test (Wilcoxon Handout, 2011) is a nonparametric test designed to evaluate the difference between two treatments or conditions where the samples are correlated. It is a test that is performed when the data are not normally distributed and also when the variances for the two conditions are markedly different.

⁷⁸ According to Acker (2012), the one-way analysis of variance (ANOVA) is used to compare the means of three or more independent groups that a researcher is interested in. It helps to determine whether the means in question are significantly different from each other. The one-way ANOVA specifically tests the null hypothesis. A *p*-value of less than 0.05 (5%) is normally used as a guideline for determining significant effects of variables. This means that a *p*-value of less than 0.05 rejects the hypothesis and therefore a conclusion that there is a significant difference between groups is reached.

⁷⁹ A two-sample t-test analysis is a widely used statistical method to compare group means (Park, 2009). The t-test assumes that samples are randomly drawn from normally distributed populations with unknown population variances.

d. Condition 5 – elements 1, 2 and 6

3. Frog story

a. Condition 6 – elements 1, 5 and 6

Secondly, in order to explore the effects of language on the narrative text structure in the [re]tellings of multilingual children, a one-way ANOVA analysis was performed to compare means of all the scores between condition 1a and 1b, condition 2 and 3, condition 4 and 5, condition 6 and 7. The statistician firstly compared the means of all the scores for both schools combined for the radio story, then he did the same for both schools combined for the rocket and frog stories, then he compared the means of all the scores for the private school (Kapita) for the radio, rocket and frog stories and lastly he did the same for the public school (Mphungu) for the radio, rocket and frog stories.

Furthermore, in order to explore the effects of medium on the narrative text structure in the [re]tellings of multilingual children, a one-way ANOVA analysis was performed to compare means of all the scores between three different mediums (conditions 1a and 1b, conditions 2 to 5 and conditions 6 and 7). This was done for both schools combined for the radio, rocket and frog stories and then for each of the individual schools for the radio, rocket and frog stories.

The statistician also performed the one-way ANOVA analysis to compare the means of all the scores between the seven elements (“introduction”, “character development”, “mental states”, “referencing”, “conflict resolution”, “cohesion” and “conclusion”). This was done for both schools combined for the radio, rocket and frog stories and then for each of the individual schools for the radio, rocket and frog stories.

The results of the language and medium comparisons for the radio, rocket and frog stories, analysed by means of descriptive statistics are plotted in the form of graphs and presented in Chapter 4. The rest of the results (means, standard deviations, coefficient variations and *p*-values) are presented in the form of tables in Chapter 4.

3.6.7.2 Qualitative analyses

In order to effectively answer the last research question (Do the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning conform to the NSS,

in other words, do they conform to the canonical scoring schemas because the NSS was developed from the canonical scoring schemas?) qualitative analyses were used. I used a content-analytic method to identify information (that is, text data) from the [re]tellings across all conditions (from condition 1 (a) to condition 7) that does not match the elements that are associated with the NSS. I also used a content-analytic method to explore the “setting” and “mental states” elements included in the [re]tellings in greater depth. Data from these analyses is presented qualitatively in tables. Due to the fact that I was interested in the actual text data from the [re]tellings, no descriptive statistical analyses were used to answer the third question.

In the next section, I explain the ethical consideration procedures that I followed in this study. I also explain how the autonomy of participants was protected through the use of an informed consent form in compliance with the ethical clearance guidelines of the University of KwaZulu-Natal.

3.7 Ethical Considerations

Firstly, I sought ethical clearance from the University of KwaZulu-Natal, the institution that I was affiliated to, which was granted by the university’s ethical review committee (No. HSS/0246/012D, see Appendix 14⁸⁰).

Secondly, I sought approval from the head teachers of the two schools through a letter (see Appendix 15 and Appendix 16) in which I asked for their permission to allow me to conduct my study at their school premises. I informed them about my research topic, aims and the University of KwaZulu-Natal, the institution that I was affiliated to. I indicated that I required the participation of the pupils and teachers and that I needed to use the school’s premises. I also described the tasks that children were required to do. Finally I informed them that, in compliance with the ethical clearance guidelines of the University of KwaZulu-Natal, I was required to obtain parental consent since the main subjects in my study were minors.

Thirdly, I sought parental consent through informed consent forms (see Appendix 17 for a consent form in English and Appendix 18 for a consent form in Chichewa) that the children took

⁸⁰ I initially wanted to investigate children’s inferential comprehension as reflected in the ethical clearance letter from the University of KwaZulu-Natal, letters of permission from both schools and informed consent forms. However, I narrowed down the topic to concentrate only on text comprehension in multilingual children.

home. The forms contained general information about the study. In the forms that were written in English and Chichewa⁸¹, parents were asked to give permission for their children's participation in the study. They were told that participation in the study was voluntary and that children were free to withdraw their participation at any time without giving reasons. They were assured that children's personal information would remain confidential and that their identities would be protected. Parents were asked to give consent to the use of their children's [re]tellings in the final research report (thesis) and other publications.

3.8 Conclusion

This chapter aimed at informing the reader about the research design that guided the current research. Two designs, cross-sectional and cross-linguistic were considered to be appropriate designs. I argued that these two designs were most appropriate to my research objectives because participants in this study were children of different ages who are multilingual with Chichewa and English as their dominant languages. This chapter has however pointed out that the corpus of research on bilingual/multilingual children using the cross-linguistic design, especially in the context of narrative discourse, is still relatively small.

This chapter has highlighted important choices with respect to the methodological design of my study. Firstly, concerning the use of mixed data analysis (that is, the use of quantitative and qualitative analyses in one study) I indicated that no design or method could a priori be judged to be superior to another. This is because each method comes with its own strengths and weaknesses. It was discussed that if mixed methods are used, it is possible that weaknesses of one method may be minimized by the strengths of the other.

Secondly, the pilot study that I conducted enabled me to select materials, methods and procedures for the main study that appeared to be most appropriate given the time and budget restrictions under which I operated. For instance, I prepared still photos of some of the characters in the rocket and radio stories because I had learnt from the pilot study that some children did not

⁸¹ Children at the private school took home the consent form written in English while children at the public school took home the consent form that was written in Chichewa. According to the head teachers of the two schools respectively, English is the language they use when communicating with parents at the private school while Chichewa is used for communication with parents at the public school.

know what they were. I chose oral [re]tellings rather than written ones because in the pilot study some children experienced great difficulties in writing. The pilot study also led me to consider that in the main study children should tell or retell a story in their mother tongue rather than in English only.

Thirdly, this chapter has acknowledged the strengths that are associated with the Narrative Scoring Scheme (NSS). However, as the discussion on inter-coder reliability for data coding highlights, this schema may be more appropriate for stories that are narrated in English than for stories that are told in African languages. The chapter therefore highlights the need to develop scoring schemas that can be used to assess stories narrated in African languages.

In the next chapter, I present findings from the main corpus of my data I collected according to the methods explained in this chapter. The focus in the next chapter is on data that were collected through story [re]telling tasks.

Chapter 4: Presentation of Findings

4.1 Introduction

In this chapter, I present findings from the main corpus of my data which I collected according to the methods explained in the previous chapter; hence the focus will be on data that were collected through story [re]telling tasks. These findings will be presented alongside some of the findings from the questionnaire filled in by the parents of my participants. The function of the questionnaire in this study is to provide some background information regarding, among other things, the languages spoken by the children, the children's involvement in storytelling and the languages used in storytelling. Information from the questionnaire will help to interpret the results from the main study; hence this information is not presented in isolation in this chapter (see Appendix 19 for a detailed presentation of the findings from the questionnaire). The findings from the main study together with the findings from the questionnaire therefore serve to provide answers to the three main questions that this study set out to answer.

Other methods were also used in data collection, such as the questionnaire that teachers filled in and a reasoning skills test. However, data from these two methods will not be presented and discussed here because the aspect of inferential comprehension which was the focus of both the questionnaire and the reasoning skills test has not been considered in this thesis. Furthermore, data from the pilot study is not presented and discussed because the pilot study was conducted to test the stimulus material for the main study and to gain a better understanding of the task itself.

The main aim of this study is to examine the effects of language and medium on the narrative text structure in the [re]tellings of multilingual children through the use of a single narrative assessment measure, i.e. the Narrative Scoring Scheme (NSS) (Heilmann, Miller & Nockerts, 2010a; Heilmann, Miller, Nockerts & Dunaway, 2010b). The study also aims to investigate whether the [re]tellings by children who have Chichewa as their L1 and English as their language of teaching and learning conform to the NSS, in other words, whether the [re]tellings conform to the canonical scoring schemas because the NSS was developed from the canonical scoring schemas as discussed in Chapter 1 (see Tables 1.5 and 1.6). Participants in this study were 127 children (64 female, 63 male) whose age range was 10 to 12 years (44 10-year-olds, 40 11-year-olds and 43 12-year-olds). At the time of the study, group 1; (69 of the children)

attended a private school (Kapita), while group 2 (58 children) attended a public school (Mphungu). The study predicted that:

1. For [re]tellings from film:

When telling stories in either English or Chichewa, elicited after viewing a film, both groups of children (i.e. the Children attending the private school Kapita and the children attending the public school Mphungu) would perform well due to the *visual superiority effect hypothesis* (Rolandelli, 1989) (see section 3.6.2 in Chapter 3 for more details). However, the *academic language advantage* (Silburn, Nutton, McKenzie & Landrigan, 2011, p. 47) would prevail for the [re]tellings from film produced in English, as the medium of instruction in private schools is English at all levels and children attending a private school may have more storytelling and retelling experiences in English.

It was also predicted that for [re]tellings from film produced in Chichewa the *mother tongue advantage* (Benson, 2004, pp. 12-13) would prevail, as the medium of instruction from Grade 1 to Grade 4 in public schools is Chichewa and children attending a public school may have more storytelling and retelling experiences in Chichewa.

2. For [re]tellings from aural versions of the film:

When [re]telling stories in English from the aural version of the film, children attending a private school would perform better when compared to children attending a public school due to the *academic language advantage* (Silburn, Nutton, McKenzie & Landrigan, 2011, p. 47). In contrast, when [re]telling stories in Chichewa from the aural version of the film, children attending a public school would perform better when compared to children attending a private school due to the *mother tongue advantage* (Benson, 2004, pp. 12-13). Table 4.1 presents a summary of predictions 1 and 2.

3. Narratives produced by children with Chichewa as their L1 and with English as their language of teaching and learning would not conform to the NSS (Heilmann et al., 2010a, 2010b). We rather expected that – irrespective of the language in which the children produce their [re]tellings – the [re]tellings would be influenced by elements from African folktales.

Table 4.1 Summary of predictions 1 and 2

Summary of predictions 1 and 2				
Medium of presentation	Private School: Kapita		Public School: Mphungu	
	Chichewa	English	Chichewa	English
Film		++	++	
Audio file		+	+	

The double ++ signify that the visual presentation should generally yield superior data than the aural presentations.

The presentation and discussion of results will be structured around the three research questions of the study as follows:

1. Does language have an effect on the narrative text structure in the [re]tellings of multilingual children with Chichewa as their L1 and English their L2? In other words, how do stories narrated in Chichewa differ from stories narrated in English?
2. Does the medium of the stimulus presentation (picture book, film, aural presentation) influence the children's narrative text structure?
3. Do the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning conform to the NSS, in other words, do they conform to the canonical scoring schemas because the NSS was developed from the canonical scoring schemas?

I used a content-analytic method (see section 3.7.2 for more details) in order to identify information from the [re]tellings that match the elements reflected in the Narrative Scoring Scheme (NSS). Then each [re]telling was scored in accordance with the requirements of the NSS (see section 3.7.3 for more details). Thereafter, all the scores were analysed statistically using the software package MATLAB (see section 3.7.6 for more details). In this chapter, some of the results of the language and medium comparisons for the radio, rocket and frog stories are presented in the form of graphs. The rest of the results (means, standard deviations, coefficient variations and *p*-values) are presented in the form of tables. In order to investigate whether the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning conform to the NSS, in other words, whether the [re]tellings conform to the canonical

scoring schemas; qualitative aspects of data analysis were applied. This is because I was interested in the actual text data from the [re]tellings. No descriptive statistical analyses were therefore used to answer the third question. I used a content-analytic method (see chapter 3 for more details) to identify information (that is, text data) from the [re]tellings across all conditions (from condition 1 (a) to condition 7) that does not match the elements that are associated with the NSS. I also used the content-analytic method to explore more about the “setting” and “mental states” elements included in the [re]tellings. Data from these analyses is presented qualitatively in tables.

4.2 The effects of language on the narrative text structure in the [re]tellings of multilingual children with Chichewa as their L1 and English their L2

In order to examine the effects of language on the narrative text structure in the [re]tellings of multilingual children, a one-way ANOVA analysis was performed to compare means and standard deviations of scores from all the conditions (condition 1a and 1b⁸², condition 2 and 3⁸³ condition 4 and 5⁸⁴, condition 6 and 7⁸⁵). Furthermore, the means and standard deviations of all the scores from each of the two groups and each of the three stories (“The mole and the radio”, “The mole and the rocket” and “Frog, where are you?”) were compared. Similarly, the means and standard deviations of all the scores from both groups combined were also compared.

Firstly, the presentation in section 4.2.1 focuses on the effects of language on the narrative text structure by examining means, standard deviations and coefficient variations of the scores from each of the story elements (“introduction”, “character development”, “mental states”, “referencing”, “conflicts”, “cohesion” and “conclusion”) specified in the NSS (a scoring schema that was developed from the canonical scoring schemas). This section basically considers how children performed when [re]telling stories in English and Chichewa in accordance with the

⁸² Condition 1a consists of English narrations from film while condition 1b consists of Chichewa narrations from film.

⁸³ Condition 2 and 3 consist of English and Chichewa [re]tellings respectively from the radio and rocket aural stories.

⁸⁴ Condition 4 and 5 consist of English and Chichewa [re]tellings respectively from the radio and rocket aural stories.

⁸⁵ Condition 6 and 7 consist of English and Chichewa [re]tellings respectively from the picture book – “Frog, where are you?”.

requirements of the adapted version of the NSS (Heilmann, Miller & Nockerts, 2010a; Heilmann, Miller, Nockerts & Dunaway, 2010b).

Secondly, the presentation in section 4.2.2 focuses on means, standard deviations and coefficient variations of the scores from the [re]tellings of each of the three stories (“The mole and the radio”, “The mole and the rocket” and “Frog, where are you?” (Mayer, 1969); these stories are also referred to as “radio story”, “rocket story” and “frog story” respectively in this thesis).

Thirdly, the presentation in section 4.2.3 focuses on the differences between scores obtained from the [re]tellings by the two groups of children. It basically examines the significant differences between scores obtained from the [re]tellings in English and scores obtained from the [re]tellings in Chichewa by the two groups of children. Finally, in section 4.2.4, a summary of the results regarding the effects of language on the narrative text structure in the [re]tellings of multilingual children will be given.

4.2.1 Effects of language on the narrative text structure, means and standard deviations for each of the story elements

A one-way ANOVA analysis was performed to compare means and standard deviations of all the scores from each of the story elements. The scores from the [re]tellings were analysed statistically to obtain the mean scores as we did not have an equal number of children participating in this study in each of the assigned conditions (see section 3.4.1 in chapter 3). According to AGA centre for quality and practice (p. 1), “the mean is the sum of the observations divided by the number of observations. It identifies the central location of the data, sometimes referred to in English as the average”. The mean scores in this study therefore refer to the average scores obtained. The standard deviation (SD) is defined by Data Star (2013, p. 1) as an indication of how far the scores vary or "deviate" from the mean. The SD tells the researcher the way scores are spread out. In other words, the SD tells the researcher whether or not scores are concentrated around the mean, or scattered over a wide range (Data Star, 2013, p. 1). The smaller in value the SD the closer the scores are to the mean, while the larger in value the SD the more spread out the scores are.

The scores were also analysed in order to obtain a coefficient of variation (CV). The CV tells the researcher how “the standard deviation relates to the mean” (AGA centre for quality and

practice, p. 2). Knowing the CV is important because it is sometimes difficult to determine whether the value of the SD is small or large. According to AGA centre for quality and practice (p. 2), the CV is calculated by dividing the SD by the mean score. The closer the CV is to 1 the more the scores are spread out. When the CV is closer to 0, it means the scores are concentrated around the mean. In this study, when the CV is less than 0.5 then the scores are closer to the mean and when the CV is 0.5 or more the scores are scattered over a wide range.

The radio story

Firstly, this section focuses on whether or not scores obtained from the radio story [re]tellings in Chichewa are higher or lower than scores obtained from the [re]tellings in English for each of the story elements specified in the NSS (Heilmann et al., 2010a, 2010b). If scores obtained from English [re]tellings are different from scores obtained from Chichewa [re]tellings in all the seven elements (“introduction”, “character development”, “mental states”, “referencing”, “conflicts”, “cohesion” and “conclusion”), then language has an effect on the narrative text structure.

Table 4.2 provides means, standard deviations (SDs) and coefficient variations (CVs) for each of the story elements from the NSS (Heilmann et al., 2010a, 2010b) for the radio story across all conditions (C1-C5). The results show that element 2 (character development) has the highest scores (depicted in green); high scores are depicted in green throughout the chapter. In contrast, the elements 1 (introduction) and 3 (mental states) have the lowest scores (depicted in red); low scores are depicted in red throughout the current chapter. The results furthermore reveal that this pattern is stable irrespective of the language of presentation and also irrespective of the school type. These results show that the language that was used in story production did not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children’s [re]tellings.

The results of the standard deviations (SDs) show that more than half of the scores analysed from the radio story are scattered far from the mean. This is due to the fact that conditions 1 (a) and 1 (b) from group 1 children (Kapita school, depicted as K in this chapter) have four or more elements that have coefficient variations (CVs) that are below 0.5 whereas condition 3 from group 2 children (Mphungu school, depicted as M in this chapter) has four elements that have CVs of less than 0.5. In this chapter, CVs of less than 0.5 are depicted in blue. This means that

scores in these conditions are not scattered but closer to the mean. The rest of the conditions have scores that are scattered far from the mean. Out of the 84 SDs displayed in this table, there are 32 CVs that have a value of less than 0.5 and 52 CVs that have a value of equal to or more than 0.5, hence more than half of the scores analysed from the radio story are scattered far from the mean.

Table 4.2 Means, standard deviations (SDs) and coefficient variation (CVs) for each of the story elements for Kapita versus Mphungu Primary School (radio story) and for English versus Chichewa stories across conditions (C1-C5)

School	Cond's		Elements						
			E1	E2	E3	E4	E5	E6	E7
K	1a	Mean	1.6250	3.5000	3.2500	4.3750	3	3.2500	4
		SD	0.7440	1.3093	1.1650	0.7440	0.9258	1.0351	1.0690
		CV	0.5	0.4	0.4	0.2	0.3	0.3	0.2
M	1a	Mean	1.2222	2.7778	1.3333	1.7778	1.4444	2	2
		SD	0.9718	1.2019	1.7321	1.7873	1.6667	2.1213	1.0000
		CV	0.8	0.4	1.3	1.0	1.2	1.1	0.5
K	1b	Mean	2	2.2500	2.5000	2.7500	2.7500	2.7500	4
		SD	0.8165	1.5000	1.2910	0.5000	0.5000	0.5000	1.1547
		CV	0.4	0.7	0.5	0.2	0.2	0.2	0.3
M	1b	Mean	1.8000	3.4000	0.9000	2.6000	2	2	2.1000
		SD	0.6325	0.9661	1.5951	1.5776	1.1547	0.9428	1.3703
		CV	0.4	0.3	1.8	0.6	0.6	0.5	0.7
K	2	Mean	2.1429	3.3571	1.3571	2.4286	1.8571	2.0714	2.7143
		SD	1.0995	1.1507	1.4991	1.3986	1.4064	1.2067	1.0690
		CV	0.5	0.3	1.1	0.6	0.8	0.6	0.4
M	2	Mean	2.3750	2.2500	0.8750	1.1250	1	1.3750	1.7500
		SD	0.9161	1.0351	1.4577	0.9910	1.0690	1.1877	0.7071

		CV	0.4	0.5	1.7	0.9	1.1	0.9	0.4
K	3	Mean	2.2500	3.1667	1.6667	2.5833	2.6667	2.7500	2.5000
		SD	1.2154	1.0299	1.4975	1.3790	1.1547	0.9653	1.6787
		CV	0.5	0.3	0.9	0.5	0.4	0.4	0.7
M	3	Mean	1.6667	3.1111	2	4.2222	2.6667	2.7778	2.1111
		SD	0.5000	0.9280	2.1213	0.6667	1.1180	1.3017	1.3642
		CV	0.3	0.3	1.1	0.2	0.4	0.5	0.6
K	4	Mean	2.2000	3.4000	2.1000	3.1000	2.2000	2.6000	2.9000
		SD	1.0328	1.0750	1.5239	0.8756	1.3984	1.3499	1.6633
		CV	0.5	0.3	0.7	0.3	0.6	0.5	0.6
M	4	Mean	1.2500	2.1250	0.7500	0.6250	1.0000	1	1.8750
		SD	0.8864	1.2464	0.8864	1.1877	1.4142	1.4142	1.3562
		CV	0.7	0.6	1.2	1.9	1.4	1.4	0.7
K	5	Mean	1.4000	2.9000	1.4000	2.6000	1.6000	2.4000	2.2000
		SD	0.8433	1.1972	0.9661	0.6992	1.1738	0.6992	1.1353
		CV	0.6	0.4	0.7	0.3	0.7	0.3	0.5
M	5	Mean	2.1250	2.2500	1.6250	2.7500	1.3750	2	2.5000
		SD	1.5526	1.2817	1.1877	0.8864	1.1877	0.5345	1.6903
		CV	0.7	0.6	0.7	0.3	0.9	0.3	0.7

E1 = introduction, E2 = character development, E3 = mental states, E4 = referencing, E5 = conflicts and resolution, E6 = cohesion and E7 = conclusion.

Cond's = conditions

Condition 1a = English narrations from film, condition 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story and condition 5 = Chichewa [re]tellings from English aural story.

Highest scores appear in green while lowest scores are in red.

The rocket story

Secondly, this section focuses on whether or not scores obtained from the rocket story's [re]tellings in Chichewa are higher or lower than scores obtained from the [re]tellings in English

for each of the story elements specified in the NSS (Heilmann et al., 2010a, 2010b). If scores obtained from English [re]tellings are different from scores obtained from Chichewa [re]tellings in all the seven elements, then language has an effect on the narrative text structure.

Table 4.3 provides means, standard deviations (SDs) and coefficient variations (CVs) for each of the story elements from the NSS (Heilmann et al., 2010a, 2010b) for the rocket story across all conditions (C1-C5). The results show that element 2, character development, had the highest scores while element 3, mental states, had the lowest scores. The results are similar to the ones presented in Table 4.2; however there is only one very low score for element 1 (introduction) which is found in condition 1a (visual/ film presentation). The results from the rocket story also demonstrate that the two languages (Chichewa and English) that were used in story production did not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children's [re]tellings.

The results of the standard deviations demonstrate that more than half of the scores are closer to the mean. This is because 45 coefficient variations (CVs) out of 84 (representing over half of the scores) have a value of less than 0.5. Furthermore, the results demonstrate that conditions that have 4 or more CVs that have a value of less than 0.5 are the following: 1 (a), 1 (b), 2, 3, 4 and 5 (from group 1 children, Kapita) and 5 (from group 2 children, Mphungu). The rest of the conditions from group 1 children have CVs that are equal to or more than 0.5. This means that most scores from group 1 children from the rocket story are closer to the mean than scores from group 2 children.

Table 4.3 Means, standard deviations (SD) and coefficient variations (CVs) for each of the story elements for Kapita versus Mphungu Primary School (rocket story) and for English versus Chichewa stories across all conditions (C1-C5)

School	Cond's		Elements						
			E1	E2	E3	E4	E5	E6	E7
K	1a	Mean	2.1000	3.9000	3.3000	3.7000	3.3000	3.7000	3
		SD	0.7379	0.7379	1.0593	0.6749	0.8233	0.8233	0.9428
		CV	0.4	0.2	0.3	0.2	0.2	0.2	0.3
M	1a	Mean	1.6667	2.4444	1.4444	1.3333	1.7778	1.7778	2
		SD	0.7071	1.5092	1.3333	1.2247	1.7873	1.7873	1.1180
		CV	0.4	0.6	0.9	0.9	1.0	1.0	0.6
K	1b	Mean	1.8889	2.5556	1.5556	2.8889	2.5556	2.5556	2.8889
		SD	0.3333	0.5270	1.3333	0.6009	0.5270	0.5270	0.3333
		CV	0.2	0.2	0.9	0.2	0.2	0.2	0.1
M	1b	Mean	2.0000	2.6364	0.4545	2.3636	2.2727	2.2727	2.5455
		SD	1.2649	0.6742	0.5222	1.2863	1.1037	0.9045	0.8202
		CV	0.6	0.3	1.1	0.5	0.5	0.4	0.3
K	2	Mean	2.1111	3.3333	2.7778	3.2222	2	3	1.7778
		SD	0.9280	1.1180	1.7159	0.6667	1.5811	0.7071	0.9718
		CV	0.4	0.3	0.6	0.2	0.8	0.2	0.5
M	2	Mean	1.4444	2	0.7778	0.8889	0.8889	1.3333	1.5556
		SD	0.7265	0.7071	0.8333	1.0541	0.9280	0.8660	1.5092
		CV	0.5	0.4	1.1	1.2	1.0	0.6	1.0
K	3	Mean	2.6667	2.7778	1.4444	3	2.5556	2.2222	1.8889
		SD	1.5000	0.9718	1.3333	0.7071	1.1304	0.6667	0.7817
		CV	0.6	0.3	0.9	0.2	0.4	0.3	0.4

M	3	Mean	2.7500	2.8750	1.6250	2.6250	2.5000	2.1250	1.7500
		SD	1.1650	1.2464	1.8468	1.3025	1.4142	1.1260	0.8864
		CV	0.4	0.4	1.1	0.5	0.6	0.5	0.5
K	4	Mean	2.6000	2.7000	2.2000	2.8000	2.7000	2.6000	2.3000
		SD	0.8433	1.2517	1.6865	0.4216	0.8233	0.6992	0.8233
		CV	0.3	0.5	0.8	0.2	0.3	0.3	0.4
M	4	Mean	2	1.1667	0.1667	0.8333	0.8333	0.6667	1.6667
		SD	1.2649	0.4082	0.4082	1.3292	0.7528	1.2111	0.5164
		CV	0.6	0.3	2.4	1.6	0.9	1.8	0.3
K	5	Mean	2.1250	2.6250	1.8750	2.3750	2.1250	2.5000	2.8750
		SD	0.6409	0.9161	1.2464	0.7440	1.4577	0.9258	0.9910
		CV	0.3	0.3	0.7	0.3	0.7	0.4	0.3
M	5	Mean	2	2	1.5714	2.4286	0.7143	2	2.1429
		SD	0	0	1.3973	0.5345	0.7559	0	1.3452
		CV	0	0	0.9	0.2	1.1	0	0.6

E1 = introduction, E2 = character development, E3 = mental states, E4 = referencing, E5 = conflicts and resolution, E6 = cohesion and E7 = conclusion.

Cond's = conditions

Condition 1a = English narrations from film, condition 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story and condition 5 = Chichewa [re]tellings from English aural story.

Highest scores appear in green while lowest scores are in red.

The fact that there is only one very low score for element 1, means that scores for element 1 in the rocket story were not as low as scores for element 1 in the radio story. The differences could be attributed to the nature of the stimulus materials. In the radio story, the mole, the protagonist in the story, is introduced right from the first line while it takes a longer period of time before the mole is mentioned in the rocket story (see the discussion in section 5.4 in chapter 5, on how the stimulus material influenced the children's [re]tellings). The aural stories reflect the film versions where it takes equally long for the mole to appear. Because the rocket story focuses on the setting of the story (that is, the spatial location) at the beginning rather than the protagonist,

as portrayed in the radio story, children's [re]tellings also tended to be influenced by this fact, hence the considerably better scores for element 1 (introduction) in the rocket story than in the radio story.

The frog story

Finally, this section focuses on whether or not scores obtained from the frog story's [re]tellings in Chichewa are higher or lower than scores obtained from the [re]tellings in English for each of the story elements specified in the NSS (Heilmann et al., 2010a, 2010b). If scores obtained from English [re]tellings are different from scores obtained from Chichewa [re]tellings in all the seven elements, then language has an effect on the narrative text structure.

The results from the "Frog, where are you?" story are presented in Table 4.4. Here we do not find any very low scores for element 1 (introduction). As alluded to earlier on, the children's [re]tellings may have been influenced by the stimulus materials. In this case, the children's [re]tellings may have been shaped by the visual images from the picture book. For instance, the first page of the "Frog, where are you?" storybook presents visual images about the characters in the story as well as the setting and in particular, spatial setting. This page explicitly represents the setting of the story, the bedroom. It might have been easy therefore for children to include the element "introduction" in their narratives. In the outcome the "Frog, where are you?" story like the rocket story has better scores in the "introduction" element than the radio story.

Table 4.4 Means, standard deviations (SD) and coefficient variations (CVs) for each of the story elements for Kapita versus Mphungu Primary School (“Frog, where are you?” story)

School	Cond's	Elements							
		E1	E2	E3	E4	E5	E6	E7	
K	6	Mean	2.1000	2.7333	1.2333	2.4000	2.1000	2.2333	2.9667
		SD	0.9229	0.4498	1.1651	0.5632	0.6618	0.9353	1.0981
		CV	0.4	0.2	0.9	0.2	0.3	0.4	0.4
M	6	Mean	1.5882	1.5882	0.5294	1.2941	1.1176	1.0000	1.8824
		SD	0.5073	0.6183	1.0073	0.4697	0.3321	0	0.8575
		CV	0.3	0.4	1.9	0.4	0.3	0	0.5
K	7	Mean	1.9286	2.6786	1.2857	2.5357	2.3929	2.2143	2.7857
		SD	0.8576	0.6118	1.2430	0.5762	0.7373	0.8759	0.7868
		CV	0.4	0.2	1.0	0.2	0.3	0.4	0.3
M	7	Mean	2.3636	1.9091	1	2.3636	1.9091	1.4545	2.5455
		SD	0.9244	0.8312	0.7746	0.8090	0.8312	0.8202	0.5222
		CV	0.4	0.4	0.8	0.3	0.4	0.6	0.2

E1 = introduction, E2 = character development, E3 = mental states, E4 = referencing, E5 = conflicts and resolution, E6 = cohesion and E7 = conclusion.

Cond's = conditions

Condition 6 = English narrations from picture book (“Frog, where are you?”), 7 = Chichewa narrations from picture book (“Frog, where are you?”).

Highest scores appear in green while lowest scores are in red.

Unlike the radio and rocket stories, the “Frog, where are you?” story has highest scores in element 7 (conclusion) irrespective of the language used in story production and school type. There are two reasons for this. Firstly, the pictures provide a clear indication of the end of the story. Secondly, the pictures also guide the children on how to conclude. For instance, in the last picture the boy carries one of the baby frogs and then waves at the rest of the frogs. It seems to have been easier for children to produce a conclusion with these strong visual cues present while

they found it more difficult to conclude the [re]tellings that were elicited by using film and audio recordings. In the latter cases the children had to depend on memory to [re]tell stories. To illustrate that the visual cues from the films were weaker than the visual cues from the picture book, there is only one high mean score that the children obtained from the “conclusion” element in the [re]tellings from the radio story (see Table 4.2, condition 1b). The results from the [re]tellings from the rocket story further indicate that there are two high mean scores that the children obtained from the “conclusion” element (see Table 4.3, conditions 1b and 5). In contrast, the results from the [re]tellings from the frog story reveal that there are four high mean scores that the children obtained from the “conclusion” element (see Table 4.4, conditions 6 and 7).

In a similar way to the findings from the radio and the rocket stories, the lowest mean scores are found in element 3 irrespective of the language used in story production or school type. These results from the frog story also demonstrate that the two languages (Chichewa and English) that were used in story production did not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children’s [re]tellings.

Furthermore, regarding the standard deviations (SDs) displayed in Table 4.4, the results show that most scores are not scattered far from the mean. This is the case because the coefficient variations (CVs) in this table demonstrate that in conditions 6 and 7 from both groups of children, there are 4 or more CVs that are above 0.5. A total of 22 CVs out of 28 have a value of less than 0.5 which means that most of the scores from the frog story are closer to the mean.

4.2.2 Means, standard deviations and coefficient variations of scores obtained from each of the three stories.

This section basically looks at the scores obtained by the children when [re]telling the three stories in English and Chichewa. This is different from what was presented in section 4.2.1 in the sense that the focus in the previous section was on how children performed in English and Chichewa [re]tellings of each of the stories according to the story elements provided in the NSS (Heilmann et al., 2010a, 2010b), while the focus in this section is on the scores obtained from the [re]tellings in English and Chichewa without taking into account the story elements.

Means from the scores obtained from each of the stories were examined in order to see, among other things, which story had the highest and which one had the lowest scores. Table 4.5 presents means, standard deviations and coefficient variations from the scores obtained by children from the private school (Kapita).

Table 4.5 Means, standard deviations (SD) and coefficient variations (CVs) of scores obtained from each of the three stories – a focus on Kapita primary school

Radio story				Rocket story				Frog story			
Cond's	mean	SD	CV	cond's	mean	SD	CV	cond's	mean	SD	CV
1a	3.2857	1.2608	0.4	1a	3.2857	0.9801	0.3	6	2.2524	0.9967	0.4
1b	2.7143	1.0491	0.4	1b	2.4127	0.7959	0.3	7	2.2602	0.9547	0.4
2	2.2755	1.3681	0.6	2	2.6032	1.2513	0.5				
3	2.5119	1.3217	0.5	3	2.3651	1.1260	0.5				
4	2.6429	1.3301	0.5	4	2.5571	0.9874	0.4				
5	2.0714	1.0944	0.5	5	2.3571	1.0167	0.4				

Condition 1a = English narrations from film, 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story, condition 5 = Chichewa [re]tellings from English aural story, condition 6 = English narrations from picture book (“Frog, where are you?”), 7 = Chichewa narrations from picture book (“Frog, where are you?”).

Highest scores appear in green.

The results show that Kapita primary school has higher scores in the radio story than in the rocket and frog stories. Regarding standard deviations’ results, most scores from the radio story are not as close to the mean when compared to most scores from the rocket and frog story. This is because there are 4 coefficient variations (CVs) in the rocket story out of the 6 CVs that have a value of less than 0.5 whereas there are 2 CVs in the radio story out of the 6 CVs that have a value of less than 0.5. In addition, all the 2 CVs in the frog story have a value of less than 0.5. Overall, in this table, there are 8 CVs out of 14 CVs that have a value of less than 0.5. This means that more than half of the scores from Kapita primary school are close to the mean.

Table 4.6 Means, standard deviations (SD) and coefficient variations (CVs) of scores obtained from each of the three stories – a focus on Mphungu primary school

Radio story				Rocket story				Frog story			
Cond's	mean	SD	CV	cond's	mean	SD	CV	cond's	mean	SD	CV
1a	1.7937	1.5571	0.9	1a	1.7778	1.3731	0.8	6	1.2857	0.7381	0.6
1b	2.1143	1.3678	0.6	1b	2.0779	1.1672	0.6	7	1.9351	0.9225	0.5
2	1.5357	1.1594	0.8	2	1.2698	1.0193	0.8				
3	2.6508	1.4274	0.5	3	2.3214	1.3226	0.6				
4	1.2321	1.2648	1.0	4	1.0476	1.0348	1.0				
5	2.0893	1.2545	0.6	5	1.8367	0.9208	0.5				

Condition 1a = English narrations from film, 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story, condition 5 = Chichewa [re]tellings from English aural story, condition 6 = English narrations from picture book (“Frog, where are you?”), 7 = Chichewa narrations from picture book (“Frog, where are you?”).

Highest scores appear in green.

Similarly, Mphungu primary school registers higher scores in the radio story than in the rocket and frog stories (see Table 4.6 above). Both schools therefore have the highest scores in the radio story irrespective of the language of presentation. However, regarding results on standard deviations, the scores from Mphungu primary school are scattered far from the mean. This is reflected in the CVs which all have a value of more than 0.5. This means that there is no uniformity in the scores.

The radio story registered higher scores than the other two stories (rocket story and frog story) even when scores from both groups of children were combined (see Figure 4.1). The reason for this may be attributed to the fact that a radio is more familiar to Malawian children than the concept of travelling in a rocket or having pet frogs. Most people in Malawi own a radio as opposed to a television. A radio in Malawi is considered a valuable asset which can be owned by any ordinary Malawian. It might therefore have been easier for the children to recall the radio story because the story revolved around a radio, which is a familiar object (Erten & Razi, 2009) to children attending private as well as public schools. Such an interpretation is in line with findings on a positive relationship between cultural familiarity and reading or listening

comprehension (Alptekin, 2006; Carrell, 1987; Carrell & Eisterhold, 1983; Erten & Razi, 2009; Jalilifar & Assi, 2008; Johnson, 1981; Li & Lai, 2012; Pritchard, 1990; Sasaki, 2000) (see chapter 1 for a more detailed account of the literature as well as chapter 5 for a further discussion of these findings).

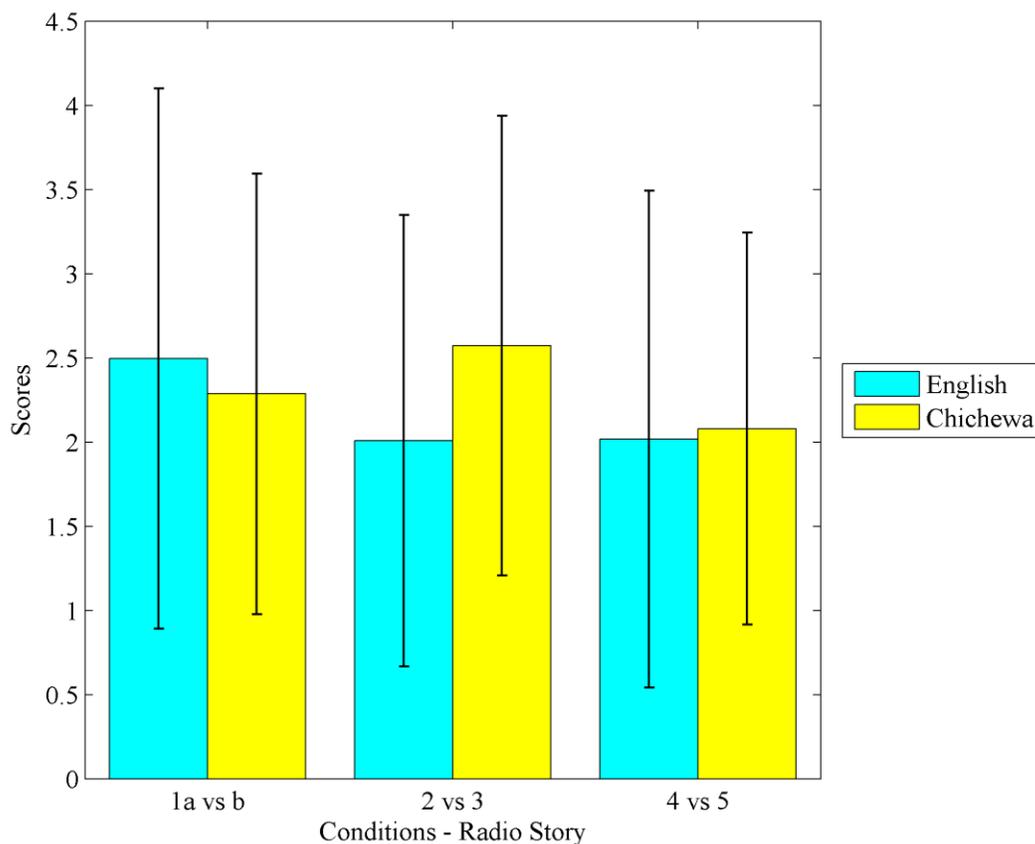


Figure 4.1 Results from the radio story when mean scores from both schools are combined

The interpretation that cultural familiarity enhances story telling abilities is supported by the empirical observation that the [re]tellings of the rocket story receive considerably lower scores in this study. As already indicated, the rocket might not have been familiar to most of the children who participated in the study. Moreover, the rocket story featured characters that live in the ocean (a crab, angelfish, a sea horse, etc.) and these characters may not have been known to children who live inland and do not have access to television, the internet and illustrated books. The scores are low even though the children were shown still pictures of the creatures in the

rocket story before they started viewing or listening to the stimulus story and were told the creatures' names. This means that even with a preparatory familiarization phase it was not possible for them to remember the names of the sea animals during recall because instantaneous learning of new things is difficult as it leads to cognitive overload (Chang, Sung & Chen, 2001; Katayama & Robinson, 2000). See the discussion in chapter 5 for further details and elaboration. Additionally, the children in this study have considerably lower scores in the rocket story than the radio story as demonstrated in Tables 4.5 and 4.6 above. The scores from the rocket story are also considerably lower even when scores from both groups of children are combined as demonstrated in Figure 4.2 below.

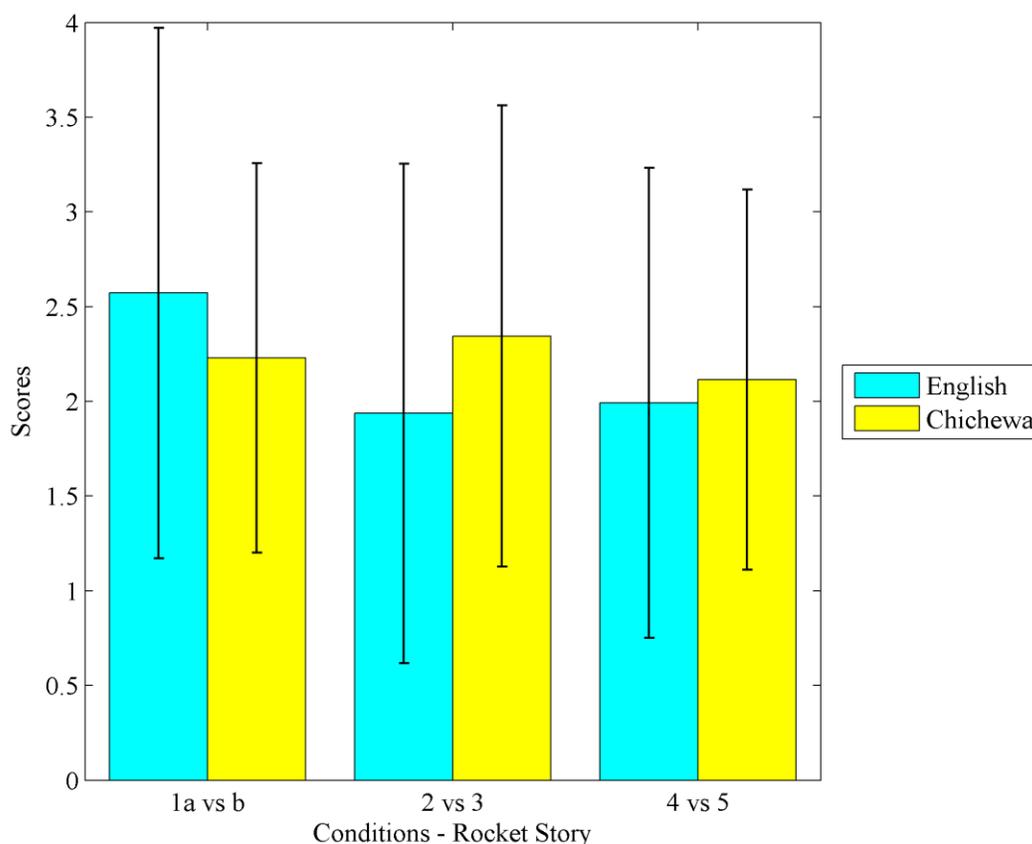


Figure 4.2 Results from the rocket story when mean scores from both schools are combined

The results also show that the scores from the “Frog, where are you?” story were, overall, even lower than scores from the rocket story as demonstrated in Figure 4.3 below. Hence even though

the scores for “conclusion” were exceptionally high for the “Frog, where are you?” story in relation to the scores obtained for the other [re-]tellings in my corpus as discussed earlier, in its entirety the story did not yield good [re]tellings. This is surprising given that the children were able to access the information in the pictures while they were telling the story.

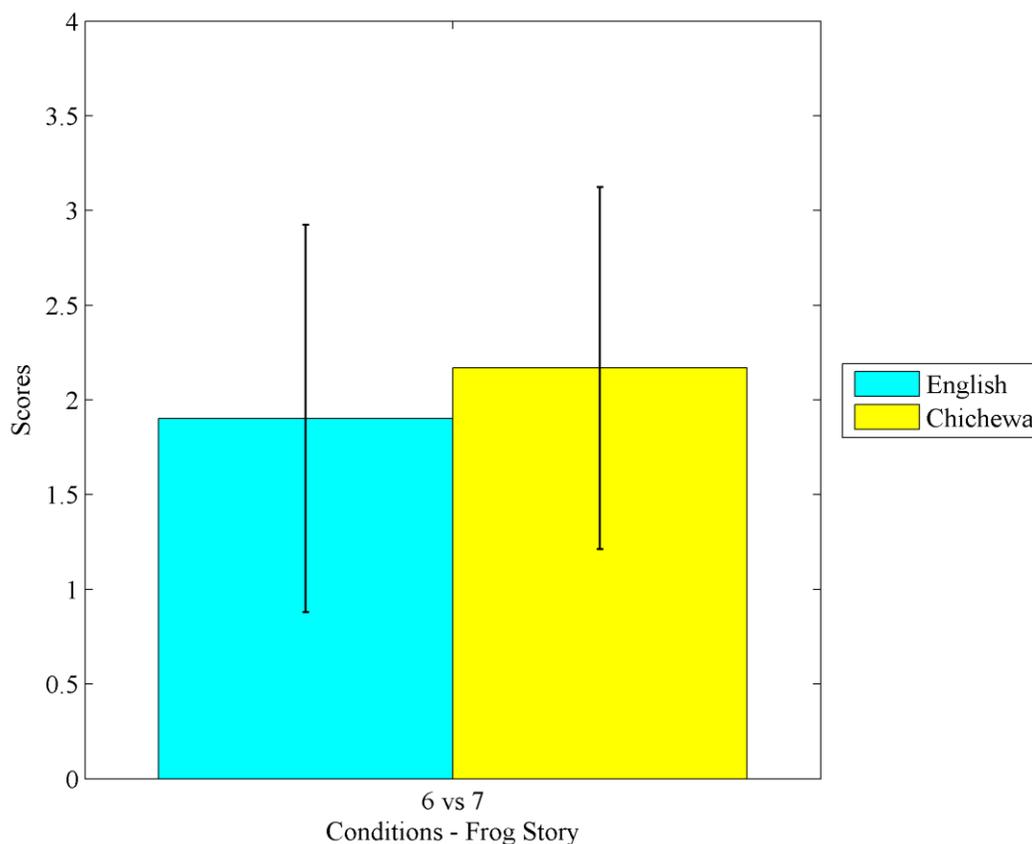


Figure 4.3 Results from the frog story when mean scores from both schools are combined

Again, as in the case of the rocket story, the children may not have been familiar with the content of the story. The “Frog, where are you?” story revolves around a little boy in search of his pet frog. The idea of keeping a frog as a pet may not be familiar to an African child, though.

4.2.3 Means, standard deviations and coefficient variations of scores obtained by children from each of the schools and both schools combined.

The presentation in this section focuses on the mean scores obtained from the [re]tellings by the two groups of children (group 1; children from Kapita primary school, group 2; children from

Mphungu primary school). This section basically looks at the mean scores obtained by children from group 1, mean scores obtained by children from group 2 and mean scores obtained by both groups of children when [re]telling stories in English and Chichewa. This section also examines the significant differences between scores obtained from the [re]tellings in English and Chichewa by both groups of children. Table 4.7 presents mean scores obtained from the [re]tellings by both groups of children (group 1; children from Kapita primary school and group 2; children from Mphungu primary school).

Table 4.7 Mean scores obtained from the [re]tellings by both groups of children (group 1; children from Kapita primary school and group 2; children from Mphungu primary school)

Kapita Primary School			Mphungu Primary School		
Radio story	Rocket story	Frog story	Radio story	Rocket story	Frog story
Cond's Mean	Cond's Mean	Cond's Mean	Cond's Mean	Cond's Mean	Cond's Mean
1a	3.2857	1a	3.2857	6	2.2524
1b	2.7143	1b	2.4127	7	2.2602
2	2.2755	2	2.6032		
3	2.5119	3	2.3651		
4	2.6429	4	2.5571		
5	2.0714	5	2.3571		

Cond's = conditions

Condition 1a = English narrations from film, 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story, condition 5 = Chichewa [re]tellings from English aural story, condition 6 = English narrations from picture book ("Frog, where are you?"), 7 = Chichewa narrations from picture book ("Frog, where are you?").

Highest scores appear in green.

The results show that the mean scores from the [re]tellings produced by children from Kapita (private school) were higher than scores from the [re]tellings produced by children from Mphungu (public school). There were only two exceptions to this overall pattern. First, the scores for condition 3 (Chichewa [re]tellings from Chichewa oral story) and condition 5

(Chichewa [re]tellings from English oral story) in the [re]tellings of the radio story were higher for the public school (Mphungu) than for the private school (Kapita); 2.6508 versus 2.5119 in condition 3 (Chichewa [re]tellings from Chichewa oral story) and 2.0893 versus 2.0714 in condition 5 (Chichewa [re]tellings from English oral story). Secondly, overall, the children from the private school (Kapita) obtained higher scores for their English [re]tellings than for their Chichewa [re]tellings. This is illustrated in Figure 4.4 below.

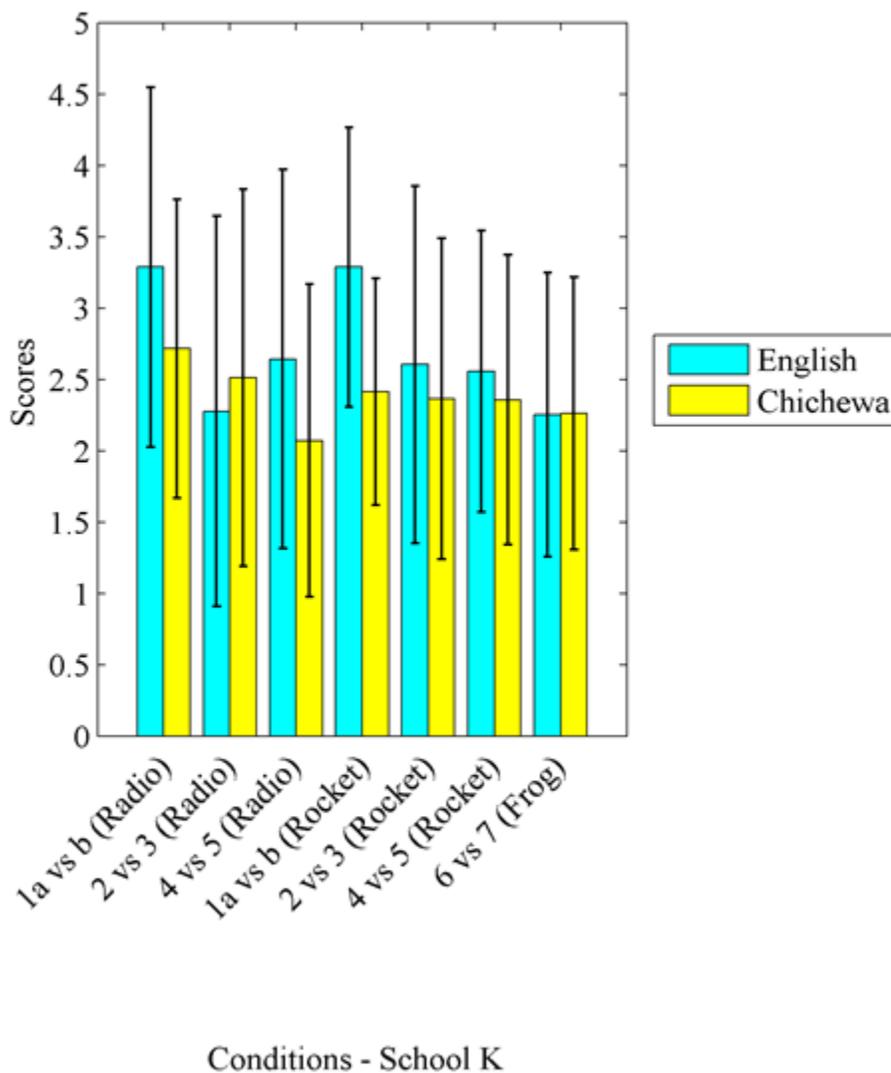


Figure 4.4 This figure represents mean scores obtained by children from Kapita for each of the three stories

A one-way analysis of variance (one-way ANOVA) was used to compare scores obtained from English [re]tellings with scores from Chichewa [re]tellings by children from Kapita primary school. According to Acker (2012, p. 54), the ANOVA tests the null hypothesis that suggests that there is no significant difference between different groups. Acker explains that a significant level of 5% ($p < .05$) is generally used as a guideline for determining differences between groups. A p -value of less than 5% ($p < 0.05$) suggests that there is a significant difference between groups while a p -value of more than 5% ($p > 0.05$) suggests that there is no significant difference between groups. The p -values for the language comparison for Kapita primary school are presented in Table 4.8 below.

Table 4.8 P -values for the language comparison for Kapita primary school – a focus on all the three stories

Radio story		Rocket story		Frog story	
conditions	p -value	conditions	p -value	conditions	p -value
1a vs. 1b	0.0420	1a vs. 1b	*1.2053e-07	6 vs. 7	0.9358
2 vs. 3	0.2394	2 vs. 3	0.2637		
4 vs. 5	0.0063	4 vs. 5	0.2670		

*1.2053e-07 = 0.00000012053

Condition 1a = English narrations from film, 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story, condition 5 = Chichewa [re]tellings from English aural story, condition 6 = English narrations from picture book (“Frog, where are you?”), 7 = Chichewa narrations from picture book (“Frog, where are you?”).

The results in Table 4.8 demonstrate that there were significant differences between scores obtained from English [re]tellings and scores from Chichewa [re]tellings in only 3 out of the 7 comparisons: 1 (a) vs. 1 (b) (radio), 4 vs. 5 (radio), 1 (a) vs. 1 (b) (rocket) because the p -values are less than 0.05. The rest of the comparisons (2 vs. 3 (radio), 2 vs. 3 (rocket), 4 vs. 5 (rocket) and 6 vs. 7 (frog)) show that there were no significant differences between scores obtained from English [re]tellings and scores from Chichewa [re]tellings because the p -values are more than 0.05.

Furthermore, the children from Mphungu primary school obtained higher scores overall for their Chichewa [re]tellings than for their English [re]tellings. This is illustrated in Figure 4.5 below.

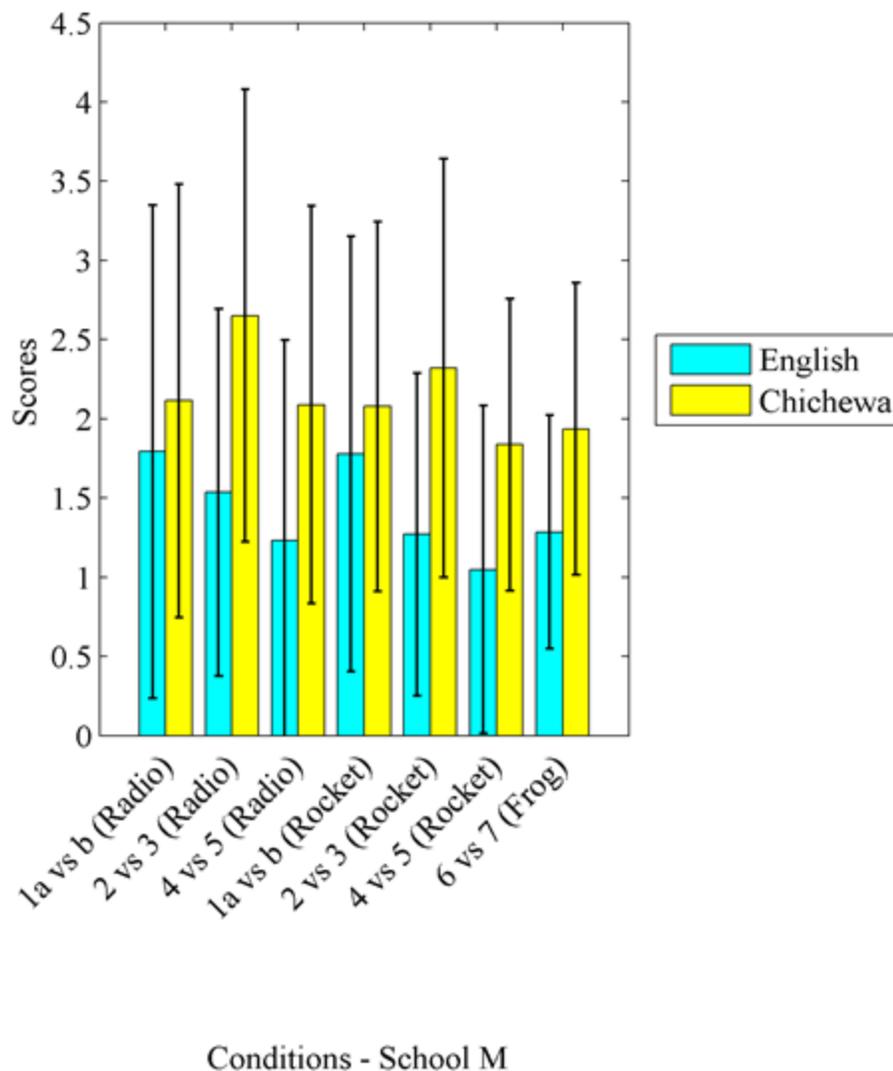


Figure 4.5 Scores from Mphungu obtained from each of the three stories

A one-way analysis of variance (one-way ANOVA) was also used to assess the significant differences between scores obtained from English [re]tellings and scores from Chichewa [re]tellings by children from Mphungu primary school. The p -values for the language comparison for Mphungu primary school are presented in Table 4.9 below.

Table 4.9 *P*-values for the language comparison for Mphungu primary school – a focus on all the three stories

Radio story		Rocket story		Frog story	
conditions	<i>p</i> -value	conditions	<i>p</i> -value	conditions	<i>p</i> -value
1a vs. 1b	0.2084	1a vs. 1b	0.1644	6 vs. 7	*1.5509e-07
2 vs. 3	*9.1226e-06	2 vs. 3	*3.2893e-06		
4 vs. 5	*4.7762e-04	4 vs. 5	*2.2281e-04		

*9.1226e-06 = 0.0000091226 *4.7762e-04 = 0.00047762 *3.2893e-06 = 0.0000032893

*2.2281e-04 = 0.00022281 *1.5509e-07 = 0.00000015509

Condition 1a = English narrations from film, 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story, condition 5 = Chichewa [re]tellings from English aural story, condition 6 = English narrations from picture book (“Frog, where are you?”), 7 = Chichewa narrations from picture book (“Frog, where are you?”).

The results in Table 4.9 demonstrate that there were significant differences between scores obtained from English [re]tellings and scores obtained from Chichewa [re]tellings by children from the public school (Mphungu) except for two comparisons: 1a vs. 1b (radio) and 1a vs. 1b (rocket). These two comparisons have *p*-values that are more than 0.05 (that is, 0.2084 and 0.1644 respectively).

Importantly, however, the children from Mphungu primary school obtained much lower overall scores in their Chichewa [re]tellings than the children from Kapita primary school as demonstrated in Figure 4.6 below. The [re]tellings produced by the public school children (Mphungu) returned an overall mean score of 2.1451 while the [re]tellings produced by children attending the private school (Kapita) returned an overall mean score of 2.3357. A one-way analysis of variance (one-way ANOVA) was also used to assess the significant differences between scores obtained by the public school children and scores obtained by the children from the private school for their Chichewa [re]tellings. The results demonstrate that there was a significant difference between the scores because the *p*-value that was obtained from the analysis was 0.0082 which is less than 0.05.

These results therefore undermine the hypothesis that children attending a public school would perform better than children attending a private school due to a *mother tongue advantage* when

[re]telling stories in Chichewa from film and an oral version of the film. Information from the parental questionnaire indicates that there are more children from Mphungu (36/58) who mainly use Chichewa in storytelling at home than children from Kapita (15/69) (see Appendix 19). Thus, it had been predicted that children attending the public school might have more storytelling and [re]telling experiences in Chichewa than children attending a private school where English is the dominant medium of instruction and communication.

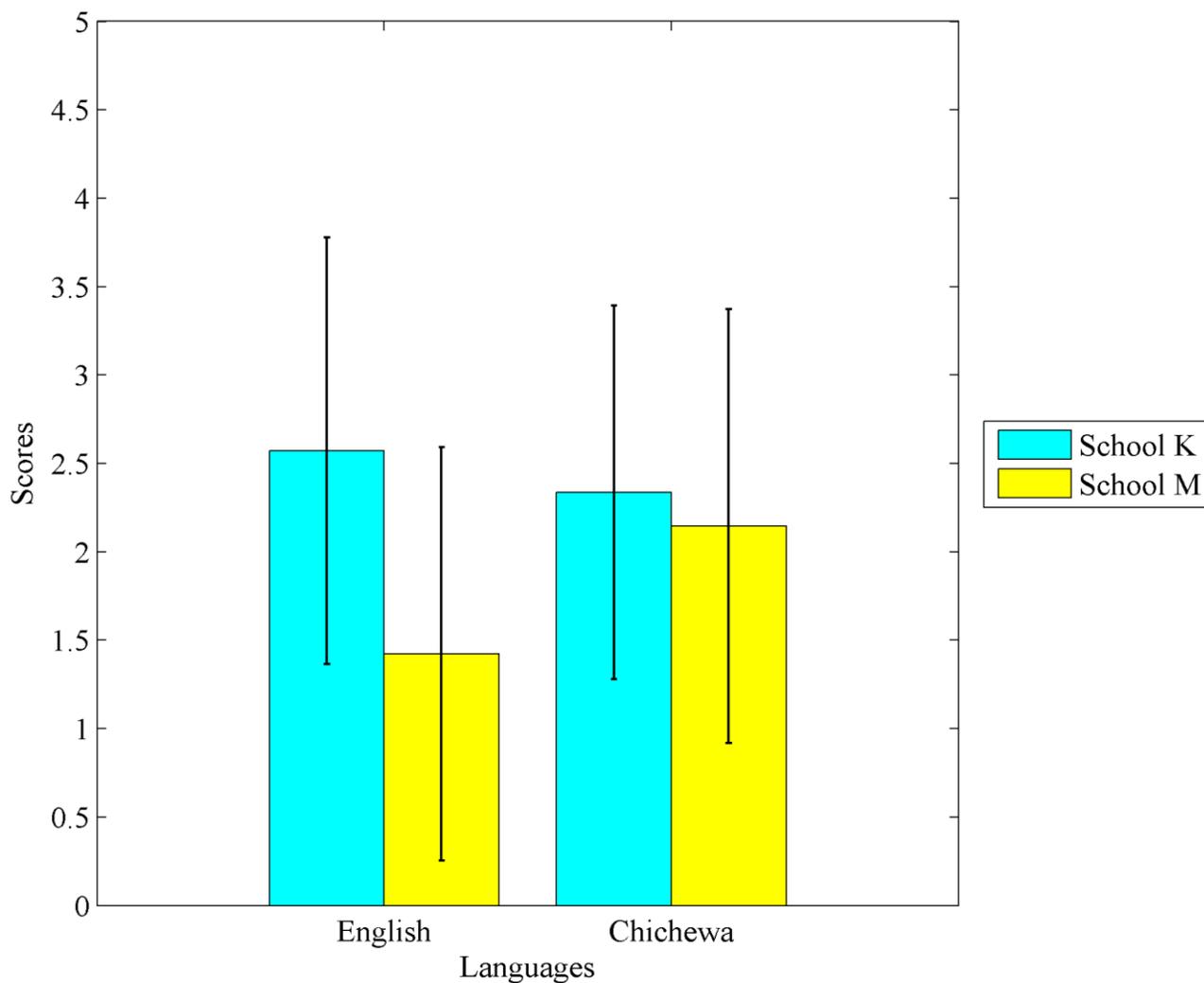


Figure 4.6 Scores obtained from English and Chichewa stories narrated by children from Kapita (private) and Mphungu (public) primary schools

Figure 4.6 also demonstrates that there is a difference between the two schools with regard to the scores that the children obtained from their English [re]tellings; the mean score for English [re]tellings obtained by the children attending the private school (Kapita) was 2.5714 while the mean score for English [re]tellings produced by the children attending the public school (Mphungu) was 1.4221. Furthermore, the results from the one-way analysis of variance (one-way ANOVA) demonstrate that there was a significant difference between the scores obtained from the two groups of children for their English [re]tellings. This is because the *p*-value that was obtained from the analysis was 0.00 which is less than 0.05.

The results are supported by the data obtained through the parental questionnaire. Tables 4.10 and 4.11 summarised the answers of parents whose children attend the private school (Kapita) and parents whose children attend the public school (Mphungu) when asked about their children's storytelling background (questions 5 and 6, see parental questionnaire in Appendix 19). As illustrated in Table 4.10, the majority of children (38/69) from the private school (Kapita) use both English and Chichewa when narrating stories at home; in consequence the parents indicate that the majority of their children (43/69) have the ability to use both languages when [re]telling stories.

Table 4.10 Background information about children attending Kapita (private) primary school

	Chichewa	English	Both English and Chichewa
Language (s) used in storytelling at home	15	9	38
Ability to [re]tell stories in	17	6	43

This information is in line with the results obtained from the children's [re]tellings. The children attending the private school (Kapita) obtained good results for [re]telling stories in both languages.

Table 4.11 demonstrates that the parents whose children attended the public school reported a strikingly different language background for their children. There were only a few children (18/58) from Mphungu whose parents use both English and Chichewa during storytelling at home. Not surprisingly there were an even lower number of children (15/58) who – according to their parents – have the ability to [re]tell stories in both languages. In addition, the majority of

the children (36/58) use Chichewa when narrating stories at home and have the ability to [re]tell stories in Chichewa.

Table 4.11 Background information about children attending Mphungu (public) primary school

	Chichewa	English	Both English and Chichewa
Language (s) used in storytelling at home	36	2	18
Ability to [re]tell stories in	39	3	15

This information supports the results obtained from the children's [re]tellings in the sense that children who attend the public school (Mphungu) did comparatively well when narrating stories in Chichewa but found it a challenge to narrate stories in English.

4.2.4 Summary of findings

The results from the radio story demonstrate that element 2 (character development) has the highest mean scores while elements 1 (introduction) and 3 (mental states) have the lowest mean scores irrespective of the language of presentation and/or the school type. Similarly, the results from the rocket story demonstrate that element 2 (character development) has the highest mean scores while element 3 (mental states) has the lowest mean scores. However, it was noted that mean scores for element 1 from the rocket story were not as low as mean scores for element 1 from the radio story. Furthermore, the results from the frog story have the lowest and highest mean scores in elements 3 and 7 respectively. Mean scores for element 1 (introduction) in the frog story are not as low as mean scores for the same element in the radio story.

Overall, the results demonstrate that the children had low mean scores in elements 1 and 3 and the highest mean scores in elements 2 and 7, irrespective of the language of presentation and/or the school type. These results therefore reveal that the two languages (Chichewa and English) that were used in story production did not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children's [re]tellings.

The results of the standard deviations demonstrate that more than half of the scores presented from the radio story are scattered far from the mean. This is because more than half of the scores from the radio story had the coefficient variation value of more than 0.5. However, the results of the standard deviations from the rocket story demonstrate that more than half of the scores are closer to the mean. This is because 45 coefficient variations out of 84 (representing over half of the scores) have a value of less than 0.5. Furthermore, regarding the standard deviations from the frog story, the results show that most scores are not scattered far from the mean. This is because more than half of the coefficient variations have a value of less than 0.5.

Furthermore, the results demonstrate that the children have the highest mean scores in the radio story rather than in the rocket and the frog story irrespective of the language of presentation and/or the school type. The results also demonstrate that the mean scores from Kapita (private school) are significantly higher than the mean scores from Mphungu (public school). Besides this, Kapita has higher mean scores for English [re]tellings than Chichewa [re]tellings, while Mphungu has higher mean scores for Chichewa [re]tellings than English [re]tellings. However, even though Mphungu has higher mean scores for Chichewa [re]tellings than English [re]tellings, their mean scores for Chichewa [re]tellings are way below the mean scores for Chichewa [re]tellings by the children from the private school. These results therefore undermine the hypothesis that children attending a public school would perform better than children attending a private school due to a *mother tongue advantage* when [re]telling stories in Chichewa from film and the aural version of the film.

The next section presents findings in relation to the influence of the medium of the stimulus presentation (picture book, film, aural presentation) on the narrative text structure. If scores obtained from the three media of presentation are different with regard to the seven story elements (“introduction”, “character development”, “mental states”, “referencing”, “conflicts”, “cohesion” and “conclusion”) specified in the NSS (Heilmann et al., 2010a, 2010b), then the medium has an influence on the narrative text structure.

4.3 The influence of the medium of the stimulus presentation (picture book, film, aural presentation) on the narrative text structure

The focus in this section is on whether the medium of the stimulus presentation (picture book, film, aural presentation) has an influence on the narrative text structure. In section 4.3.1, mean

scores for the medium comparison from the [re]tellings of the three stories by both groups of children will be presented. Then, in section 4.3.2, *p*-values, means, standard deviations and coefficient variations from the radio and frog stories will be presented. Thereafter, in section 4.3.3, a presentation of the *p*-values, means, standard deviations and coefficient variations from the rocket and frog stories will be provided. Finally, in section 4.3.4, a summary of the results regarding the influence of the medium of the stimulus presentation on the narrative text structure will be provided.

4.3.1 The influence of the medium of the stimulus presentation (picture book, film, aural presentation) on the narrative text structure, means for the medium comparison for both groups of children

In order to examine the influence of the medium of the stimulus presentation (picture book, film, aural presentation) on the narrative text structure, mean scores from the [re]tellings of each of the three stories were analysed, see Table 4.12 below. In particular, mean scores obtained from each of the story elements (“introduction”, “character development”, “mental states”, “referencing”, “conflicts”, “cohesion” and “conclusion”) specified in the NSS (Heilmann et al., 2010a, 2010b) were analysed. The results demonstrate that for the film medium, the lowest mean scores are found in elements 1 and 3 while the highest mean scores are found in element 7 (highest mean scores are depicted in green and lowest mean scores are depicted in red). For the aural medium, element 3 has the lowest mean scores while element 2 has the highest mean scores. For the pictorial medium, the lowest mean score is found in element 3 while the highest mean score is found in element 7. These results therefore demonstrate that elements 1 and 3 have the lowest scores whereas elements 2 and 7 have the highest mean scores.

Table 4.12 Mean scores for the medium comparison – a focus on scores from each of the three stories from [re]tellings by both groups of children

	RADIO STORY		ROCKET STORY		FROG STORY
	Film medium	Aural medium	Film medium	Aural medium	Pictorial medium
E1	1.6618	1.9262	1.9139	2.2122	1.9951
E2	2.9820	2.8200	2.2731	2.4347	2.2273
E3	1.9958	1.4717	1.6886	1.3583	1.0121
E4	2.8757	2.4293	2.5715	2.2716	2.1484
E5	2.2986	1.7957	2.4765	1.7896	1.8799
E6	2.5000	2.1217	2.5765	2.0559	1.7255
E7	3.0250	2.3188	2.6086	1.9946	2.5451

E1 = introduction, E2 = character development, E3 = mental states, E4 = referencing, E5 = conflicts and resolution, E6 = cohesion and E7 = conclusion.

Table 4.13 below presents the results of the medium comparison with a focus on the mean scores from the [re]tellings by both groups of children. Unlike the results presented earlier on in Table 4.12, the results in Table 4.13 focus on the sum of the mean scores obtained from the [re]tellings of all the three stories by both groups of children.

Table 4.13 Means for the medium comparison – a focus on the sum of mean scores obtained from the [re]tellings of all the three stories by both groups of children

Medium	Elements						
	E1	E2	E3	E4	E5	E6	E7
Film medium	1.7857	2.9857	1.7429	2.7000	2.3571	2.5143	2.7000
Aural medium	2.0759	2.7172	1.5517	2.4138	1.8621	2.1517	2.2000
Pictorial medium	1.9767	2.3837	1.0814	2.2209	1.9767	1.8837	2.6395

The results in Table 4.13 are similar to the ones presented above with only one exception, element 1 does not reflect mean scores that are very low. These results are similar to the ones presented in section 4.2.1 regarding the influence of language on the narrative text structure. It may therefore be concluded that the medium of the stimulus presentation did not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children's [re]tellings.

4.3.2 *P*-values, means, standard deviations and coefficient variations for the medium comparison for Kapita and Mphungu Primary School – a focus on radio and frog stories

One-way analysis of variance (one-way ANOVA) was used to compare the scores obtained by the two groups of children from the [re]tellings in the three modes of presentation (film, aural and picture book). The analysis initially focused on scores obtained from the radio and frog stories. The analysis was carried out in order to assess, in particular, the significant differences between scores obtained from the three modes of presentation. A significant level of 5% ($p < .05$) was used as a guideline for determining differences between these scores. According to Acker (2012, p. 54), a p -value of less than 5% ($p < 0.05$) suggests that there is a significant difference between groups while a p -value of more than 5% ($p > 0.05$) suggests that there is no significant difference between groups. Table 4.14 presents the p -values for comparison of the medium between conditions 1a and 1b with 2 to 5, conditions 1a and 1b with 2 to 5 and conditions 2 to 5 with 6 and 7 with a focus on the radio and frog stories.

Table 4.14 *P*-values for the comparison of medium for Kapita and Mphungu Primary School – a focus on radio and frog stories

Kapita Primary School		Mphungu Primary School	
conditions	<i>p</i> -value	conditions	<i>p</i> -value
1a and 1b with 2 to 5	*6.0692e-06	1a and 1b with 2 to 5	0.6882
1a and 1b with 6 and 7	*2.1350e-11	1a and 1b with 6 and 7	0.0012
2 to 5 with 6 and 7	0.1683	2 to 5 with 6 and 7	0.0018

*6.0692e-06 = 0.0000060692

*2.1350e-11 = 0.00000000021350

1a and 1b = film medium 2 to 5 = aural medium 6 and 7 = pictorial medium

Condition 1a = English narrations from film, 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story, condition 5 = Chichewa [re]tellings from English aural story, condition 6 =

English narrations from picture book (“Frog, where are you?”), 7 = Chichewa narrations from picture book (“Frog, where are you?”).

The results from Kapita show that there is a significant difference in the following comparisons: 1a and 1b with 2 to 5 ($6.0692e-06$), 1a and 1b with 6 and 7 ($2.1350e-11$), because the p -values are less than 0.05. On the other hand, there is no significant difference in the comparison between 2 to 5 with 6 and 7 because the p -value is more than 0.05 (0.1683). These results are illustrated in Figure 4.7 below.

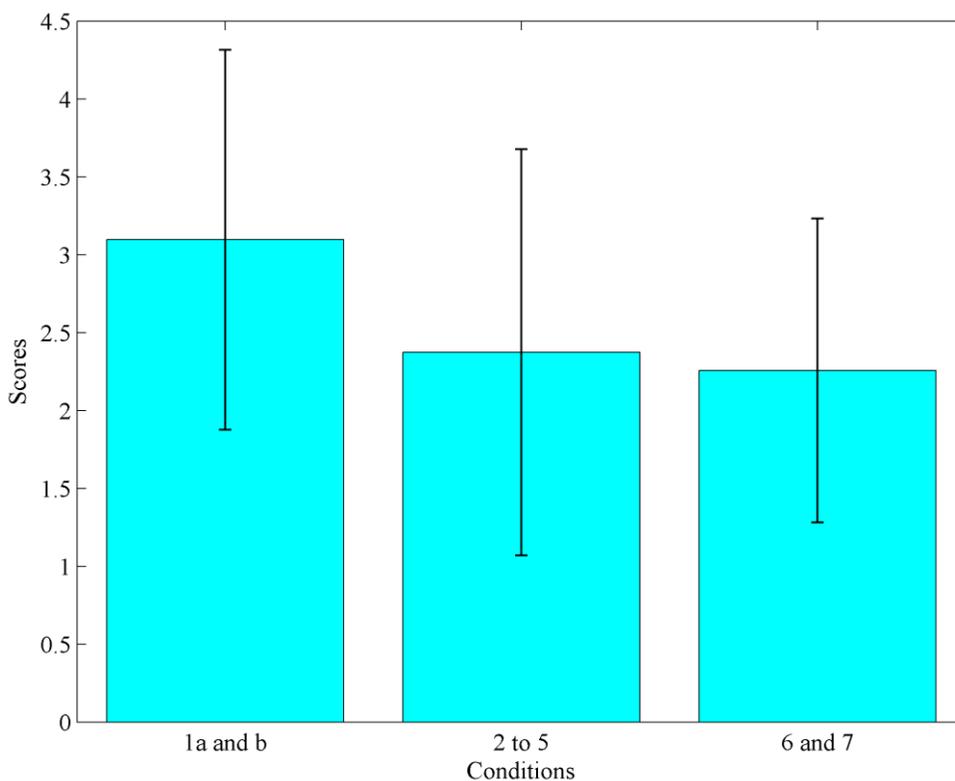


Figure 4.7 Comparison of medium for Kapita – a focus on radio and frog stories

The results from Mphungu show that there is a significant difference in the following comparisons: 1a and 1b with 6 and 7 (0.0012) and 2 to 5 with 6 and 7 (0.0018) because the p -values are less than 0.05 while there is no significant difference between 1a and 1b with 2 to 5 because the p -value is more than 0.05 (0.6882). These results are also illustrated in Figure 4.8 below.

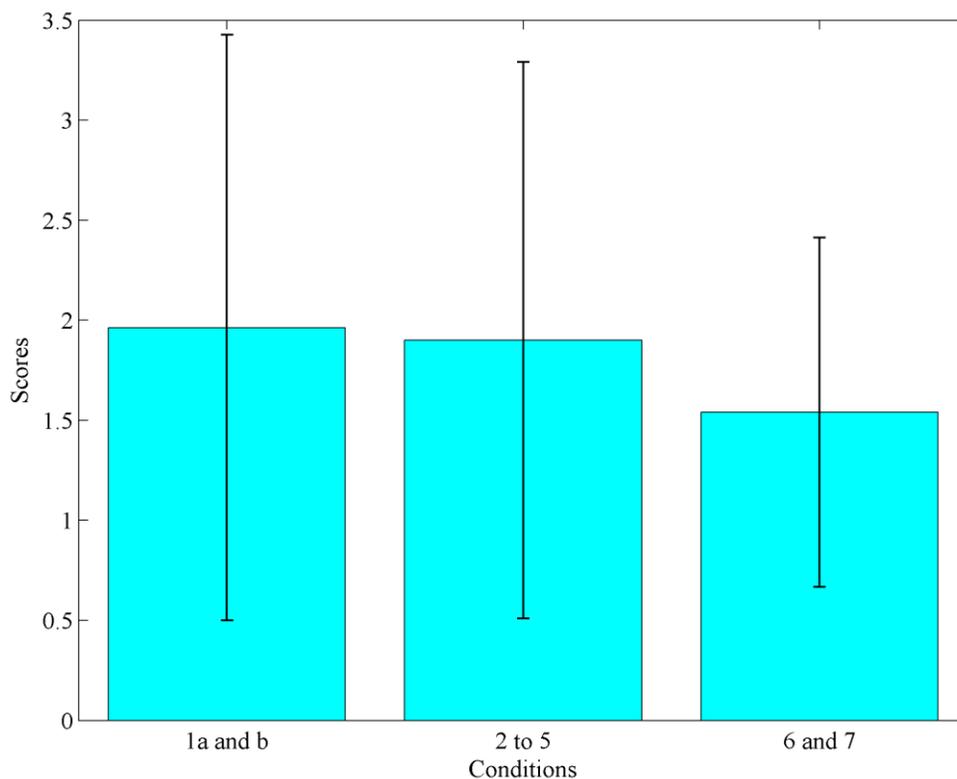


Figure 4.8 Comparison of medium for Mphungu – a focus on radio and frog stories

Table 4.15 below presents means, standard deviations (SDs) and coefficient variations (CVs) for the comparison of medium for Kapita and Mphungu with a focus on the radio and frog stories. The results show that, in both schools, the film medium has higher mean scores than the other two media; aural and pictorial media. Kapita has a mean score of 3.0952 for conditions 1a and 1b (film), while conditions 2 to 5 (aural) and conditions 6 and 7 (picture book) have mean scores of 2.3727 and 2.2562 respectively. Mphungu has a mean score of 1.9624 for conditions 1a and 1b (film), while conditions 2 to 5 (aural) and conditions 6 and 7 (picture book) have the values 1.9004 and 1.5408 respectively.

Table 4.15 Means, standard deviations (SDs) and coefficient variations (CVs) for the comparison of medium for Kapita and Mphungu Primary School – a focus on radio and frog stories

Kapita Primary School				Mphungu Primary School			
conditions	mean	SD	CV	conditions	mean	SD	CV
1a and 1b	3.0952	1.2185	0.4	1a and 1b	1.9624	1.4637	0.7
2 to 5	2.3727	1.3033	0.5	2 to 5	1.9004	1.3905	0.7
6 and 7	2.2562	0.9755	0.4	6 and 7	1.5408	0.8732	0.6

1a and 1b = film medium 2 to 5 = aural medium 6 and 7 = pictorial medium

Condition 1a = English narrations from film, 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story, condition 5 = Chichewa [re]tellings from English aural story, condition 6 = English narrations from picture book (“Frog, where are you?”), 7 = Chichewa narrations from picture book (“Frog, where are you?”).

Highest scores appear in green.

The results of the standard deviations (SDs) demonstrate that scores obtained by the children from Kapita primary school from the film medium (1 (a) and 1 (b)) and the pictorial medium (6 and 7) are concentrated around the mean. This is because the coefficient variations (CVs) from these two media have a value of less than 0.5. Scores from the aural medium from Kapita and scores from all the three media from Mphungu demonstrate that scores that the children obtained from these media are located far from the mean. According to AGA centre for quality and practice (p. 2), CVs of less than 0.5 demonstrate that the scores are closer to the mean whereas CVs of 0.5 or more demonstrate that the scores are scattered far from the mean. CVs of less than 0.5 are depicted in blue in this chapter.

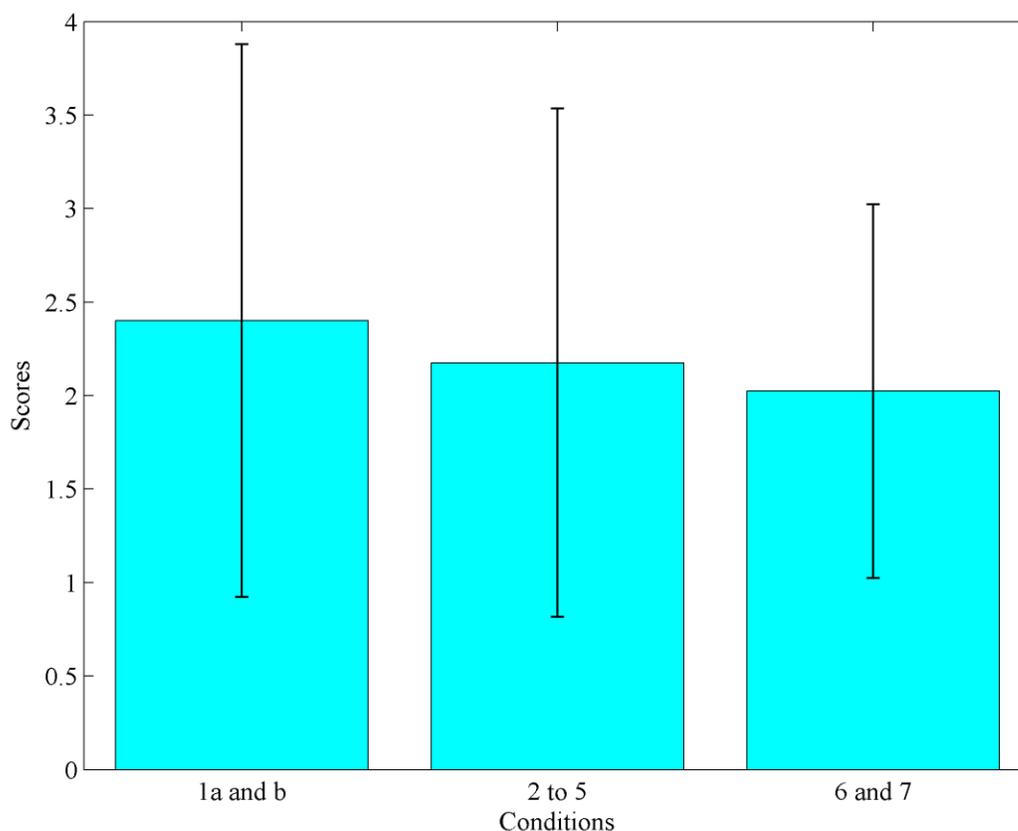


Figure 4.9 Comparison of medium between radio and frog stories when scores from both schools are combined

The film medium has higher mean scores than the other two media; aural and pictorial media even when scores from both schools are combined for the radio and frog comparison as demonstrated in Figure 4.9 above.

4.3.3 *P*-values, means, standard deviations and coefficient variations for the comparison of medium for Kapita and Mphungu Primary School – a focus on rocket and frog stories

ANOVA analyses were used, in a similar manner to that explained in section 4.3.2, in order to compare the scores obtained by the two groups of children in the three modes of presentation (film, aural and picture book). However, in this section the focus is on scores obtained from the rocket and frog stories. A *p*-value of less than 5% ($p < .05$) indicates that there is a significant difference between different groups while a *p*-value of more than 5% ($p > 0.05$) suggests that there is no significant difference between groups (Acker, 2012, p. 54). Table 4.16 presents *p*-values for the comparison of medium for Kapita and Mphungu.

Table 4.16 *P*-values for the comparison of medium for Kapita and Mphungu Primary School – a focus on rocket and frog stories

Kapita Primary School		Mphungu Primary School	
conditions	<i>p</i> -value	conditions	<i>p</i> -value
1a and 1b with 2 to 5	*3.9892e-09	1a and 1b with 2 to 5	0.8994
1a and 1b with 6 and 7	*3.2196e-15	1a and 1b with 6 and 7	0.1087
2 to 5 with 6 and 7	0.0062	2 to 5 with 6 and 7	0.0317

*3.9892e-09 = 0.0000000039892

*3.2196e-15 = 0.0000000000000032196

1a and 1b = film medium 2 to 5 = aural medium 6 and 7 = pictorial medium

Condition 1a = English narrations from film, 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story, condition 5 = Chichewa [re]tellings from English aural story, condition 6 = English narrations from picture book (“Frog, where are you?”), 7 = Chichewa narrations from picture book (“Frog, where are you?”).

The results in Table 4.16 show that that there is a significant difference in the following comparisons for Kapita: 1 (a) and 1 (b) with 2 to 5 (3.9892e-09), 1 (a) and 1 (b) with 6 and 7 (3.2196e-15) and 2 to 5 with 6 and 7 (0.0062) because the *p*-values are less than 0.05. However, it is important to note that the difference between scores from the film and pictorial media (1 (a), 1 (b) and, 6 and 7) is more significant than the difference between scores from the aural and pictorial media (2 to 5 and, 6 and 7). These results are further illustrated in Figure 4.10 below.

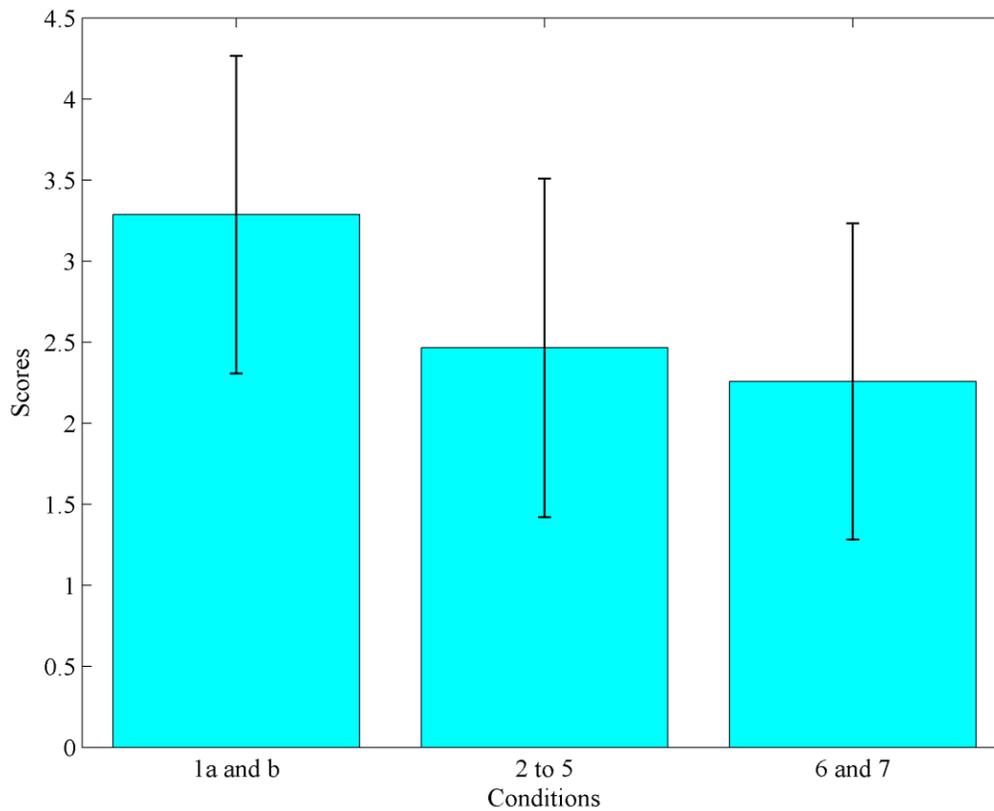


Figure 4.10 Comparison of medium between rocket and frog stories for Kapita private school

The results from Mphungu show that there is no significant difference in the following comparisons: 1 (a) and 1 (b) with 2 to 5 (0.8994), 1 (a) and 1 (b) with 6 and 7 (0.1087) because the p -values are higher than 0.05. Furthermore, there is a significant difference between 2 to 5 and, 6 and 7 (0.0317) because the p -value is less than 0.05. These differences are further demonstrated in Figure 4.11 below. This figure however illustrates that the difference between 1 (a) and 1 (b) and, 6 and 7 might be similar to the difference between 2 to 5 and, 6 and 7 because the difference between their p -values is not that wide (that is, 0.1087 is closer in value to 0.0317).

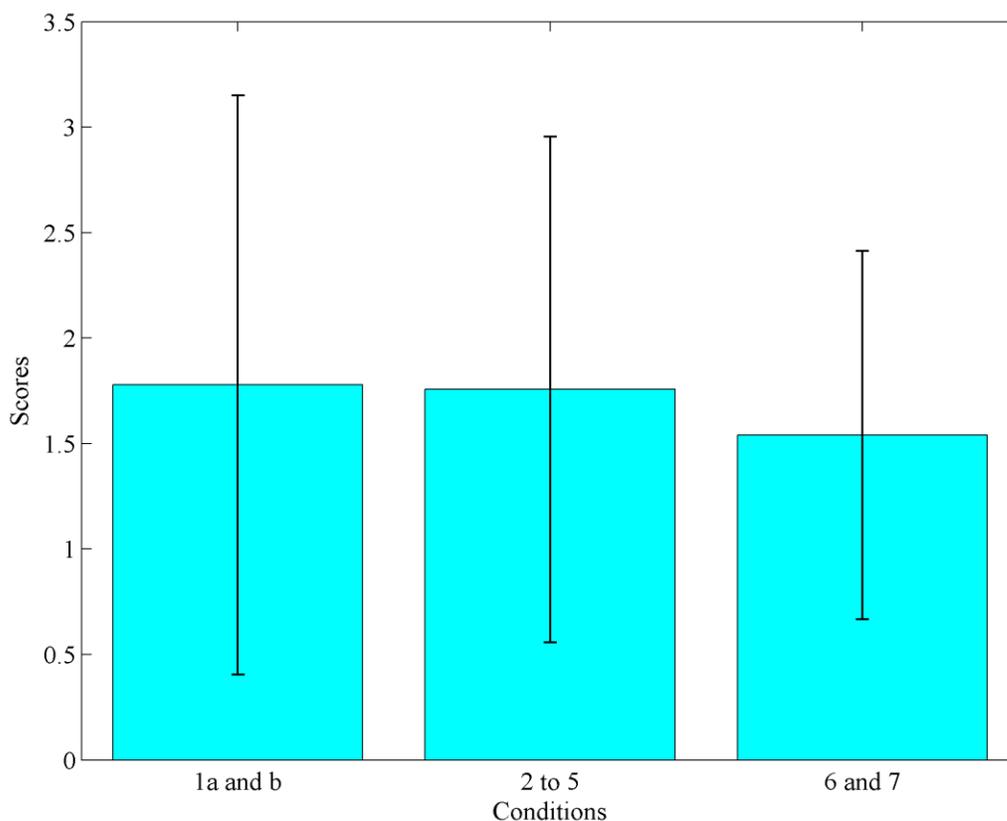


Figure 4.11 Comparison of medium between rocket and frog stories for Mphungu primary school

Table 4.17 below presents means, standard deviations and coefficient variations for the medium comparison for Kapita and Mphungu with a focus on the rocket and frog stories. The results from both schools show that the film medium has higher mean scores than the other two media; aural and pictorial. Kapita has a mean score of 3.2857 for conditions 1a and 1b (film), while conditions 2 to 5 (aural) and conditions 6 and 7 (picture book) have 2.4635 and 2.2562 respectively. Mphungu has a mean score of 1.7778 for conditions 1a and 1b (film), while conditions 2 to 5 (aural) and conditions 6 and 7 (picture book) have mean scores of 1.7561 and 1.5408 respectively.

Table 4.17 Means, standard deviations (SDs) and coefficient variations (CVs) for the medium comparison for Kapita and Mphungu Primary School – a focus on rocket and frog stories

Kapita Primary School				Mphungu Primary School			
conditions	mean	SD	CV	conditions	mean	SD	CV
1a and 1b	3.2857	0.9801	0.3	1a and 1b	1.7778	1.3731	0.8
2 to 5	2.4635	1.0441	0.4	2 to 5	1.7561	1.1987	0.7
6 and 7	2.2562	0.9755	0.4	6 and 7	1.5408	0.8732	0.6

1a and 1b = film medium 2 to 5 = aural medium 6 and 7 = pictorial medium

Condition 1a = English narrations from film, 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story, condition 5 = Chichewa [re]tellings from English aural story, condition 6 = English narrations from picture book (“Frog, where are you?”), 7 = Chichewa narrations from picture book (“Frog, where are you?”).

Highest scores appear in green.

The results of the standard deviations (SDs) in Table 4.17 demonstrate that the scores from Kapita primary school are concentrated around the mean because the coefficient variations for all the three media of presentation (1 (a) and 1 (b), 2 to 5 and, 6 and 7) have a value of less than 0.5. Furthermore, the results of the SDs from Mphungu primary school indicate that the scores obtained by the children from the public school were not any closer to the mean because the CVs for all the three media of presentation (1 (a) and 1 (b), 2 to 5 and, 6 and 7) have a value of more than 0.5.

The results also demonstrate that the film medium has higher mean scores than the other two media; aural and pictorial, even when scores from both schools are combined as demonstrated in Table 4.18.

Table 4.18 Means, standard deviations (SDs) and coefficient variations (CVs) for the comparison of medium when scores from both schools are combined

A focus on radio and frog stories				A focus on rocket and frog stories			
conditions	mean	SD	CV	conditions	mean	SD	CV
1a and 1b	2.4009	1.4784	0.6	1a and 1b	2.3956	1.2326	0.5
2 to 5	2.1754	1.3593	0.6	2 to 5	2.0952	1.2143	0.6
6 and 7	2.0233	1.0006	0.5	6 and 7	2.0233	1.0006	0.5

1a and 1b = film medium 2 to 5 = aural medium 6 and 7 = pictorial medium

Condition 1a = English narrations from film, 1b = Chichewa narrations from film, condition 2 = English [re]tellings from English aural story, condition 3 = Chichewa [re]tellings from Chichewa aural story, condition 4 = English [re]tellings from Chichewa aural story, condition 5 = Chichewa [re]tellings from English aural story, condition 6 = English narrations from picture book (“Frog, where are you?”), 7 = Chichewa narrations from picture book (“Frog, where are you?”).

Highest scores appear in green.

In Table 4.18 above, the mean score for the film medium for the comparison between radio and frog stories is 2.4009, which is higher than 2.1754 and 2.0233 for the aural and pictorial media respectively. Furthermore, the mean score for the film medium for the comparison between rocket and frog stories is 2.3956. This is also higher than the 2.0952 and 2.0233 for the aural and pictorial media respectively. The results of the comparison between rocket and frog stories are illustrated in Figure 4.12 below.

The results of the standard deviations (SDs) in Table 4.18 demonstrate that scores are scattered far from the mean when scores from both groups are combined. This is because the coefficient variations in all the three media of presentation have a value of 0.5 or more.

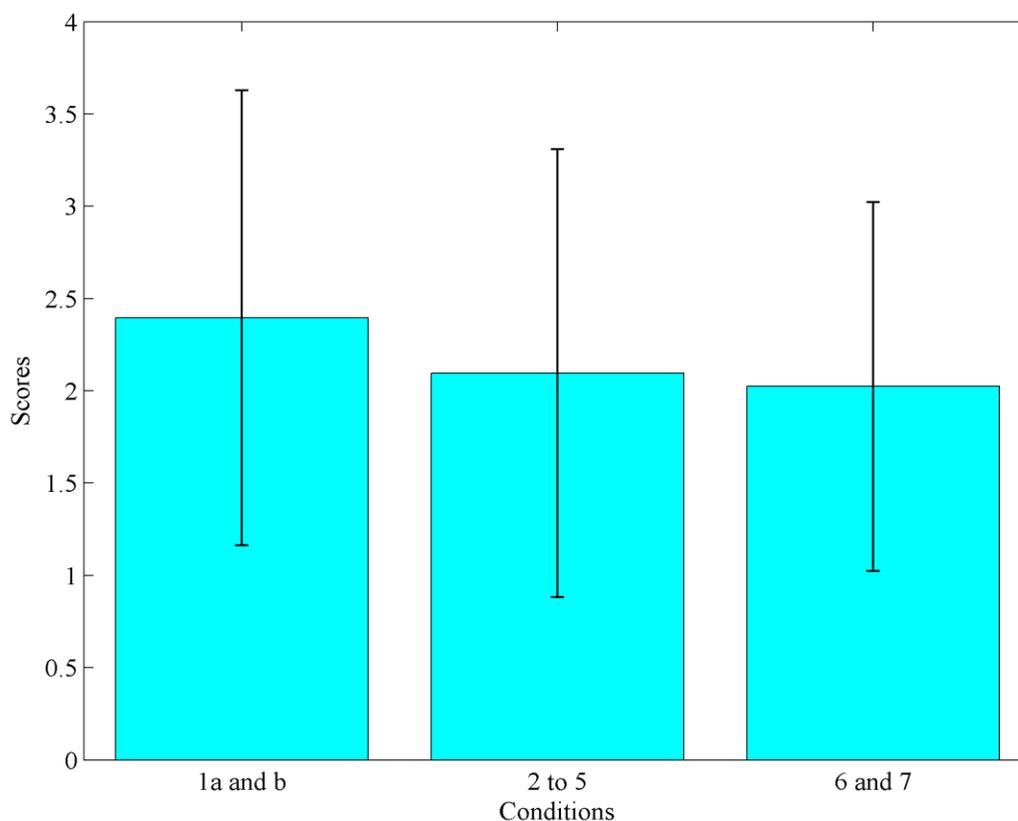


Figure 4.12 Comparison of medium between rocket and frog stories when scores from both schools are combined

The results in Figure 4.12 demonstrate that the film medium has higher scores than the ones obtained from the aural and pictorial media respectively. Chapter 5 discusses the reasons why the film medium has higher scores than the other two media (aural and pictorial).

4.3.4 Summary of findings

The results of the comparison of medium with a focus on the radio and frog stories reveal that, in both schools, the film medium has higher mean scores than the other two media of presentation (aural and pictorial). Similarly, the results of the comparison of medium with a focus on the rocket and frog stories show that, in both schools, the film medium has higher mean scores than the other two media (aural and pictorial). Furthermore, the results of the standard deviations reveal that most scores obtained by the children from Kapita primary school were close to the mean whereas most scores obtained by the children from Mphungu primary school were scattered far from the mean.

The results also demonstrate that there are significant differences between scores obtained from the three media of presentation. In particular, the results from Kapita primary school demonstrate that there is a significant difference between scores in the following comparisons: the film medium with the aural medium and, the film medium with the pictorial medium. In addition, the results from Mphungu primary school demonstrate that there is a significant difference when scores from the aural medium are compared with scores from the pictorial medium.

Regarding the influence of the medium on the narrative text structure, the results obtained are similar to the results presented in section 4.2.1 which demonstrate that the children had low mean scores in elements 1 (“introduction”) and 3 (“mental states”) and the highest mean scores in elements 2 (“character development”) and 7 (“conclusion”), irrespective of the medium of presentation. It may therefore be concluded that the medium of the stimulus presentation did not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children’s [re]tellings.

“Character development” and “conclusion” are two of the story elements that feature predominantly in Southern African folktales. Hence it could be said that the children were being influenced by such elements in their [re]tellings regardless of the language or medium of presentation and also regardless of the school type (private or public). However, the children performed poorly in elements that are not associated with Southern African folktales, in particular, “introduction” and “mental states”. The next section examines elements such as “setting” and “mental states” and other elements that were featured in the children’s [re]tellings. It investigates whether or not the [re]tellings by children who have Chichewa as their L1 and English as their language of teaching and learning conform to the Narrative Scoring Scheme (that is, the canonical scoring schemas).

4.4 Whether or not the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning conform to the Narrative Scoring Scheme (that is, the canonical scoring schemas)

This section focuses on the presentation of other story elements not specified in the Narrative Scoring Scheme (NSS) that were dominant in the children’s [re]tellings. In particular, the presentation focuses on the presence of elements that are prevalent in Southern African folktales such as “repetition” (section 4.4.1), “opening formulae” (section 4.4.2), “closing formulae”

(section 4.4.3) and “dialogues” (section 4.4.4) in the [re]tellings. It also explores the presence of elements such as “setting” (section 4.4.5) and “mental states” (section 4.4.6), which feature predominantly in the canonical scoring schemas, in greater depth.

4.4.1 The presence of repetition

The two films that the children watched as well as the aural versions of the films contain repetition of events. For instance, Tappe and Hara (2013, p. 319) report that

[t]he verbal narratives of the “The Little Mole and the Rocket” contain eight repetitions of word strings, both in the Chichewa and in the English versions, for example, “The pile grows bigger and bigger, pushing the bucket, higher and higher”. The English and Chichewa versions of “The Little Mole and the Radio” each contain seven repetitions of word strings, for example “Croak, goes the first frog. Croak, goes the second frog. Croak goes the third frog”.

The children in this study used repetition at different levels such as word, phrase and clause or sentence levels in both their Chichewa and English [re]tellings. However, as reported by Tappe and Hara (2013, p. 320), “repetitions were far more prominent in the Chichewa [re]tellings than in the English [re]tellings. In the Chichewa [re]tellings, 55% of the participants used repetitions, whereas only 28% of the participants used repetitions in the English [re]tellings”⁸⁶. Even though both the visually and aurally presented narratives contained repetitions, the repetitions that the children used were not influenced by the repetitions in the stimulus materials. Tappe and Hara (2013, p. 319) illustrate this using the following example of repetition, “Croak, goes the first frog. Croak, goes the second frog. Croak goes the third frog”, from the English version of the “The mole and the radio”. They demonstrate that there was no direct reflection of such repetition in the [re]tellings that the children produced in English. The children managed to come up with their own version of the repeated event which was not a direct “verbatim rendering of the sentence” (Tappe & Hara, 2013, p. 319).

⁸⁶ Tappe and Hara (2013) analysed the repetitions that were contained in the [re]tellings from the radio and rocket stories but not the frog story.

4.4.1.1 Repetition at word level

As explained above, the children's [re]tellings contained repetitions at word level. Examples of such repetitions are presented in Table 4.19 below.

Table 4.19 Examples of repetition at word level

Story	Example
"The mole and the radio"	1. "He danced around the radio, and danced and danced and danced".
"The mole and the radio"	2. "While he was listening to the radio, listening and listening and listening".
"The mole and the rocket"	3. "The ball went down, down ... down the hill".
"The mole and the rocket"	4. "And the mole and the crab started laughing, laughing, laughing".
"Frog, where are you?"	5. "He called and called".
"Frog, where are you?"	6. "It sniffed and sniffed".

Similar repetitions also occurred at word level in Chichewa [re]tellings such as "*akumverabe, akumverabe*" ("he was still listening, he was still listening"), "*ndikukailiza, anakailiza, kenako wailiza*" ("he went to switch it on, he switched it on, and then it was on") "*ndikukumba, kukumba*" ("he dug and dug"), "*wangoitenga, wangoitenga*" ("he took it, he took it") and "*akulira, akulira, akulira*" ("while crying, while crying, while crying").

4.4.1.2 Repetition at phrase level

Some of the repetitions at phrase level that the children used in their [re]tellings are presented in Table 4.20 below. Repetitions at phrase level serve similar functions to repetitions at word level (see Chapter 5 for more details about the functions of repetition). For instance, repetition is used in example 1 to emphasise the action of listening while in example 4, repetition is employed to demonstrate that the action of jumping was a continuous one.

Table 4.20 Examples of repetition at phrase level

Story	Example
“The mole and the radio”	1. “Listening to the man, listening to the man, listening to the man”.
“The mole and the radio”	2. “Take his hand ... take his hand”.
“The mole and the rocket”	3. “Move on the water surface ... move on the water surface”.
“The mole and the rocket”	4. “He jumped on the crocodile, jumped on the crocodile”
“Frog, where are you?”	5. “Through the window ... through the window ... through the window”.
“Frog, where are you?”	6. “Into the river ... into the river”.

The children made similar repetitions at phrase level when [re]telling stories in Chichewa such as “*manja pamutu, manja pamutu*” (“hands on top of the head, hands on top of the head”), “*winanso pachipumi, winanso pachipumi*” (“another one on the forehead, another on the forehead”), “*china chakenso ... china chakenso ... chinachakenso*” (“something else ... something else ... something else”) and “*kuli zii ... kuli zii*” (it was quiet ... it was quiet”).

4.4.1.3 Repetition at clause or sentence level

Amongst the different forms of repetition, repetition at clause or sentence level was more prominent in the children’s [re]tellings. These repetitions were far more prevalent in the Chichewa [re]tellings than in the English [re]tellings. Examples of such repetitions are presented in Table 4.21 below.

Table 4.21 Examples of repetition at clause or sentence level

Story	Example
“The mole and the radio”	1. “Night came, the little mole was still listening ... the little mole was still listening ... the little mole was still listening.”
“The mole and the radio”	2. “The three frogs weren’t happy with the music, the three birds weren’t happy with the music.”
“The mole and the rocket”	3. “And he started pressing the first button, and when he pressed the first button.”
“The mole and the rocket”	4. “The mole was very scared, then when the mole was scared ... the mole was scared”.
“Frog, where are you?”	5. “And then they saw frogs, when they saw the frogs ...”
“Frog, where are you?”	6. “He was sad, when he was sad ...”

Other examples of repetition at a clause or sentence level from Chichewa [re]tellings are the following: “*mbalame zinakwiya zinanyamuka, mbalame zinakwiya zinanyamuka*” (the birds were angry and left, the birds were angry and left), “*mafunde anamunyamula mmwamba, anamunyamula mmwamba*” (“the waves pushed him upwards, the waves pushed him upwards”), “*anayamba kuvina, anayamba kuvina*” (“he started dancing, he started dancing”), “*anapita kukaidzutsa ah anapita kukaidzutsa*” (“he went to lift it up ah he went to lift it up”), “*mfuko analowa mnyanja, mfuko analowa mnyanja nasambira*” (“the mole went into the sea, the mole went into the sea and started swimming”).

4.4.2 The presence of opening formulae

The visually and the aurally presented stimuli did not contain any opening formulae. As already alluded to in chapter 3, the two film clips that the children watched did not contain any verbal content hence there were no opening formulae inserted. Similarly, the picture book “Frog, where are you?”, did not contain any opening formulae as it did not have any linguistic content. Furthermore, the aurally presented stimuli in English contained the following opening statements demonstrating that there were no opening formulae that were inserted: “There is a big pile of sand, an upside-down red bucket and a spade on the beach” and “A little mole lives in a forest with lots of trees, plants, flowers and even some mushrooms”. Similarly, the aurally presented stimuli in Chichewa contained the following opening statements which also demonstrate the absence of opening formulae (which are translation equivalents of the English example sentences): “*Pambali pa nyanja pali mulu wa ukulu wa mchenga, chidebe chofiira chotembenezidwa, ndi fosholo*” and “*Pali kanyama kenakake kotchedwa mfuko komwe kakukhala ku nkhalango yamitengo yambiri, maluwa, ndi bowa*”. However, when the children were [re]telling stories in English, they inserted opening formulae as demonstrated in Table 4.22 below.

Table 4.22 Examples of opening formulae and the rate of occurrence in English [re]tellings

Example of opening formulae	“The mole and the radio”	“The mole and the rocket”	“Frog, where are you?”
“Once upon a time”	10	5	14
“Long time ago”	2	0	1
“One day”	7	7	4
“There was (once) ...”	18	16	20
Inclusion of title of story at the beginning e.g. the story was about the mole and the radio.	18	7	2
Inclusion of the name(s) of character(s) e.g. the story was about the little mole.	3	5	2
TOTAL	58	40	43

The children also inserted opening formulae when [re]telling stories in Chichewa as demonstrated in Table 4.23 below.

Table 4.23 Examples of opening formulae and the rate of occurrence in Chichewa [re]tellings

Example of opening formulae	“The mole and the radio”	“The mole and the rocket”	“Frog, where are you?”
“ <i>Padangokhala</i> ” (once upon a time)	1	0	3
“ <i>Kalekale</i> ” (long time ago)	2	2	2
“ <i>Tsiku lina</i> ” (one day)	2	2	2
“ <i>Panali</i> ” or “ <i>padali</i> ” or “ <i>kunali</i> ” or “ <i>kudali</i> ” (There was (once))	10	27	21
Inclusion of title of story at the beginning e.g. “ <i>nkhani inali ya Mfuko ndi wayilesi</i> ” (the story was about “The mole and the radio”).	11	3	1
Inclusion of the name(s) of character(s) e.g. “ <i>nkhani inali ya mfuko</i> ” (the story was about the mole).	5	0	4
TOTAL	31	34	33

Tables 4.22 and 4.23 demonstrate that more of the opening formulae were inserted in English [re]tellings than in Chichewa [re]tellings. For instance, the rate of occurrence for “once upon a time” in the three respective stories was 10, 5 and 14 in English [re]tellings which is considerably more frequent than 1, 0 and 3 in Chichewa [re]tellings. Furthermore, the total number of occurrences of the stated opening formulae in Table 4.22 (58, 40 and 43) is more than the total rate of occurrences of similar opening formulae in Table 4.23 (31, 34 and 33) in the three respective stories. The results from the English [re]tellings further reveal that the children from Kapita primary school are the ones who inserted more of these opening formulae in their [re]tellings in English than the children from Mphungu primary school. In particular, the results indicate that there are 26/29 occurrences of the opening formula “once upon a time” in the [re]tellings in English by the children from Kapita primary school. Much as it is explained in Chapter 5 (see section 5.8.1.2) that both groups of children were influenced by the opening formulae from Southern African folktales, there are more opening formulae in English [re]tellings than in Chichewa [re]tellings especially in the [re]tellings by the children from Kapita primary school because the children from Kapita have more storytelling experience in English than in Chichewa (relate this to the results in section 4.2.3). Information from the parental questionnaire indicates that there are more children from Kapita (9/69) who use English in storytelling at home than children from Mphungu (2/58). The results from the parental questionnaire further reveal that there are more children from Kapita (38/69) who use both languages in storytelling at home than children from Mphungu (18/58).

The results also demonstrate that most of the [re]tellings in both English and Chichewa of all the three stories contained the opening formulae “there was (once)” and “*panali*” respectively. However, “*panali*” was used more often in Chichewa [re]tellings (10 occurrences in the [re]tellings from “The mole and the radio”, 27 occurrences in the [re]tellings from “The mole and the rocket” and 21 occurrences in the [re]tellings from “Frog, where are you?”) than its equivalent “there was (once)” was used in English [re]tellings (18 occurrences in the [re]tellings from “The mole and the radio”, 16 occurrences in the [re]tellings from “The mole and the rocket” and 20 occurrences in the [re]tellings from “Frog, where are you?”).

4.4.3 The presence of closing formulae

The visually presented stimuli (the two film clips and the picture book) did not contain any closing formulae. As already pointed out in the above section, these two modes of presentation did not contain any linguistic information. However, the aurally presented stimuli contained a closing formula. “This is the end of the story” was inserted at the end of the stories in English and “Nkhaniyi yathera pano” was inserted at the end of the stories in Chichewa. When [re]telling stories in English and Chichewa in all the three media of presentation, the children included closing formulae. Some examples of the closing formulae that the children inserted and the rate of occurrence in English [re]tellings are presented in Table 4.24 below.

Table 4.24 Examples of closing formulae and the rate of occurrence in English [re]tellings

Example of closing formulae	“The mole and the radio”	“The mole and the rocket”	“Frog, where are you?”
“This is the end of the story” or “the end of the story” or other similar statements	11	10	1
“I’m finished” or “finish” or other similar statements	5	3	0
“That’s all” or “it’s all”	12	4	0
“That’s what I have heard”	1	0	0
“That’s how I understood it”	0	1	0
“The other part I don’t remember” or “I have forgotten the rest”	0	4	0
TOTAL	29	22	1

The results in Table 4.24 show that the ending of the children’s [re]tellings was influenced by the closing formula that was inserted in the aurally presented stimuli. Some children similarly inserted “this is the end of the story” or similar versions of this such as “the end of the story” or “that is the end” as shown in the first example in Table 4.24. However, some children did not reproduce the closing formula from the aurally presented stimuli. For instance, the results show that some children inserted other closing formulae such as “I’m finished” or “that’s all”.

Some examples of the closing formulae that the children inserted and the rate of occurrence in Chichewa [re]tellings are presented in Table 4.25 below.

Table 4.25 Examples of closing formulae and the rate of occurrence in Chichewa [re]tellings

Example of closing formulae	“The mole and the radio”	“The mole and the rocket”	“Frog, where are you?”
“ <i>Nkhani yanga yathera pomwepo</i> ”, “ <i>nkhani yathera pomwepo</i> ” (this is the end of the story) or other similar statements.	8	4	2
“ <i>Ndamaliza</i> ” (I have finished)	2	2	0
“ <i>Basi</i> ” (That’s all) or other similar versions.	7	6	2
“ <i>Ndi zomwe ndinamvapo</i> ” (That’s how I heard it)	2	2	0
“ <i>Ndi zomwe ndikukumbukira</i> ” (That’s what I can remember)	1	2	0
“ <i>Kwinako ndayiwala</i> ” (I have forgotten the rest)	0	4	0
TOTAL	20	20	4

Similar to the presentation above concerning closing formulae in English [re]tellings, some children were influenced by the closing formula, “*Nkhaniyi yathera pano*”, in the aurally presented stimuli as shown in the first example in Table 4.25. However, other children used different closing formulae typical of Southern African folktales such as “*Basi*” (“*basi*” is a sign of completion) and other similar versions such as “*Basi ndatha*” (“I have finished”) and “*Basi inathera pompo*” (“the story ended there”). The rate of occurrence of these closing formulae (“*Basi*” and other similar versions) as demonstrated in Table 4.25 (7 from “The mole and the radio”, 6 from “The mole and the rocket” and 2 from “Frog, where are you?”) is close to the rate of occurrence of the formulae given in the first example (8 from “The mole and the radio”, 4 from “The mole and the rocket” and 2 from “Frog, where are you?”).

The children inserted more closing formulae in their [re]tellings in English than in their [re]tellings in Chichewa. In particular, there were more occurrences of the closing formulae “This is the end of the story” or “the end of the story” or other similar statements in the [re]tellings in English by the children from Kapita (15/22) than in the [re]tellings in English by the children from Mphungu (7/22). The high rate of occurrence of closing formulae in [re]tellings in English by the children from Kapita is due to their storytelling experience in

English as revealed in the results from the parental questionnaire. Similar to the explanation given above regarding the children’s use of opening formulae, the children were influenced by the closing formulae from the Southern African folktales (see Chapter 5, section 5.8.1.3, for further details).

4.4.4 The presence of dialogues

The aurally presented stories did not contain any dialogue. However, the children included dialogues in their [re]tellings in both Chichewa and English. Tappe and Hara (2013) report that 54% of the children used dialogues in their [re]tellings in Chichewa and 56% of the children used dialogues in their [re]tellings in English (these results only refer to the radio and rocket stories). The dialogues that the children inserted in their [re]tellings were twofold: the protagonist conversed with supporting characters and supporting characters also conversed with fellow supporting characters. It is important to note that there were more dialogues in the [re]tellings of “The mole and the radio” and “The mole and the rocket” than in the [re]tellings of “Frog, where are you?”. Table 4.26 provides examples of dialogues that the children inserted in their [re]tellings depicting the protagonist conversing with supporting characters.

Table 4.26 Examples of dialogues that the children inserted in their [re]tellings depicting the protagonist conversing with supporting characters

Examples	The mole in dialogue with supporting characters
E1	“The mole said, ‘we should find the pieces of the rocket’ ... the mole said, ‘can you see that piece, can you see that piece of the rocket?’ ... the crab then said, ‘one piece of, a piece of ... a piece of the top rocket is missing’”.
E2	“And he ask, ‘what are you doing in this bottle?’ And angelfish angel fish he answer him, ‘I’m bathing’ ... And mole he said, ‘we can’t to be with you, because we are playing in water’ ... And fisherman he say, ‘why, you can’t be with me?’ (the mole said) ‘I told you first, we can’t play with you’”.
E3	“So the boy said ‘shhh! Be quiet! We are going there’”.
E4	“ <i>Anawafunsa ‘ana anu ali kuti?’ Ati ‘awa’</i> ”. (“He asked them, ‘where are your baby frogs?’ They said, ‘here they are’”).
E5	“ <i>Anaitana mbalame - mbalame inafunsa kuti ‘mfuko nchiyani chagwacho?’</i> . <i>Ndiye mfuko anaiyankha kuti ‘chagwa chimenechi ndi duwa’</i> ”. (“He called the bird - the bird asked, ‘mole, what is it that has fallen down?’ The mole replied, ‘it is the flower that has fallen down’”).
E6	“ <i>Anamfunsa anafunsa chibee kuti ‘bwerani mudzamvere’, chinakana. Anafunsa timafrog ‘bwerani mudzamvere’, tinakana. Anafunsa mbalame, ‘bwerani mudzamvere’, tinakana. Anafunsanso kalulu, ‘bwerani mudzamvere’, anakana</i> ”. (“He asked the bee, ‘come and listen’, he refused. He asked the frogs, ‘come and listen,’ they refused. He asked the rabbit, ‘come and listen’, he refused”).

The examples in Table 4.26 show that in the [re]tellings of the children the protagonist was said to have engaged in dialogue with supporting characters. Even though in some cases there was misrepresentation of information in the [re]tellings as shown in example 2 (the mole was the one who was in the bottle and not the angel fish), the protagonist (in this case, the mole) succeeds in interacting with supporting characters through a question and answer technique. Example 4 also shows that the protagonist (the boy) in the frog story uses the same technique (question and answer) in trying to find out where the family of frogs had put the baby frogs.

Children also inserted dialogues in their [re]tellings that depicted supporting characters conversing with fellow supporting characters. Examples of these dialogues are given in Table 4.27.

Table 4.27 Examples of dialogues that the children inserted in their [re]tellings depicting supporting characters conversing with fellow supporting characters

Examples	Supporting characters in dialogue with fellow supporting characters
E1	The butterfly said, “let’s go and swim together” And she goes to, take her friends and - and the angelfish say, “I don’t like to swim”.
E2	The bin [bee] – he said that, “what is that?”
E3	And a big animal came and he said, “what’s that coming in the air?”
E4	<i>Ndiyeno anagendegwa pamutu paja. Ndiyeno anamva nkuti “chachitika nchiyani?”</i> (Then they were hit right on the head. After hearing this, they said, “what has happened?”)

As demonstrated in Table 4.27, supporting characters were said to have engaged in dialogue with fellow supporting characters through the use of a similar technique (question and answer) explained above. For instance, in example 4, the frogs wanted to know what had happened because they were hit on the head. Similarly, as revealed in the children’s [re]tellings, questions such as “what is that?” and “what’s coming in the air” (see examples 2 and 3) were said to have been asked by fellow supporting characters who wanted to know what was happening.

4.4.5 The presence of a setting

The visually presented stories in both the film medium and the pictorial medium begin by providing visuals of the scenery in which the protagonist is situated. For instance, visuals of the

scenery depicting that the little mole is situated in the forest in “The mole and the radio” and on the beach in “The mole and the rocket” are shown at the beginning of the film clips. Similarly, a picture depicting that the boy and the dog are situated inside a house (i.e. the bedroom) in “Frog, where are you?” is found on the first page of the book. The aurally presented stimuli in the aural medium also begin by stating the exact location of the protagonist as exemplified in the following statements:

- “A little mole lives in a forest with lots of trees, plants, flowers and even some mushrooms” in the English version of “The mole and the radio”.
- “*Pali kanyama kenakake kotchedwa mfuko komwe kakukhala ku nkhalango yamitengo yambiri, maluwa, ndi bowa*” in the Chichewa version of “The mole and the radio”.
- “There is a big pile of sand, an upside-down red bucket and a spade on the beach ...” in the English version of “The mole and the rocket”.
- “*Pambali pa nyanja pali mulu wa ukulu wa mchenga, chidebe chofiira chotembenezidwa, ndi fosholo ...*” in the Chichewa version of “The mole and the rocket”.

However, most of the children did not provide a setting in their [re]tellings from any of the three media of presentation. For instance, Tappe and Hara (2013, p. 321) have demonstrated that only 17% of the children included a setting in their English [re]tellings whereas only 23% of the participants included a setting in their Chichewa [re]tellings (these results from Tappe and Hara only focus on the [re]tellings from “The mole and the radio” and “The mole and the rocket”). However, some of the children who mentioned setting provided one that was incorrect; for example, “the mole lived near the river”. In particular, the setting “near the river” was mentioned in two [re]tellings in English. The equivalent of “near the river” in Chichewa (“*kumbali ya mtsinje*”) was mentioned in only one [re]telling in Chichewa. The most popular setting in both the English and Chichewa [re]tellings from “The mole and the radio” is “in the forest” while in the English and Chichewa [re]tellings from “The mole and the rocket” the following settings are popular: “near the lake”, “around the lake” or “at the lake”.

It is interesting to note that the word “forest” is mentioned 9 times in English [re]tellings and *nkhalango* (“forest”) is mentioned 6 times in Chichewa [re]tellings. Significantly, the word “lake” is mentioned 37 times in English [re]tellings whereas the word “river” is mentioned 29 times in English [re]tellings. The word *mtsinje* (“river”) is mentioned four times in Chichewa [re]tellings. However, it is difficult to tell whether the children use the word *nyanja* in Chichewa

[re]tellings when referring to “lake” or “sea” because the Chichewa language uses one word, *nyanja*, when referring to “lake”, “sea” or “ocean”. Whichever meaning is intended, the word *nyanja* is mentioned 82 times in Chichewa [re]tellings. These figures clearly demonstrate that the children more often mention names of objects that are familiar to them; in this case, “lake” and “*mtsinje*” (“river”). Moreover, they mention *mtsinje* when [re]telling “The mole and the rocket” story but “*mtsinje*” is featured in neither the visually or aurally presented versions of “The mole and the rocket”. Because the story demonstrated that the mole was on the beach, the children assumed that the mole was near the river because the river is more familiar to some of the children than the lake, sea or ocean. Because of this, they kept on referring to the river throughout their [re]tellings; hence the word “river” was mentioned 29 times in English [re]tellings.

4.4.6 The presence of mental state words

The aurally presented stimuli contained reference to the mental states of the protagonist and supporting characters. Some of the mental state words contained in the aurally presented stimuli in English are “scared”, “angry”, “happy”, “sad”, “surprised” and “think” (see the first column of Table 4.28). These mental state words, according to Tappe and Hara (2013, p. 321), “correspond to a strong overt expression of an emotional response by the little mole in the film clips (e.g. the little mole crying profusely)” and also by the boy in the picture book (“Frog, where are you?”) who was “sad” when his pet frog went missing and “happy” when he found it. However, the stories that the children narrated from film contain the least number of mental state words (the total number of mental state words from [re]tellings of the film medium is 53) whereas the [re]tellings from the aurally presented narratives contain the highest number of mental state words (the total number of mental state words from the aural medium is 68). The aural medium has the highest number because the children were influenced by the mental state words that were provided in the aurally presented stimuli. For instance, the figures for “happy”, “sad” and “think” from the aural medium are 15, 15 and 11 respectively, which are higher than the figures from the film medium (10, 13 and 10 respectively). However, the figure for the mental state word “happy” is higher in the pictorial medium (25) than the other two media (10 for film and 15 for aural). The reason for this could be attributed to the nature of the story in the pictorial medium, that is, the children could not avoid expressing the boy’s happiness after he had found his missing pet frog because it is clearly depicted in his expression.

Table 4.28 Frequency of mental state words mentioned in the participants' [re]tellings in English compared with occurrence of the mental state words in the stimulus material in English

Mental state words	English stories	Film medium (N = 37)	Aural medium (N = 67)	Pictorial medium (N = 47)
Afraid/scared	0/6	9/4	11/5	8/4
Angry	1	2	4	7
Disappointed	0	0	2	0
Happy	2	10	15	25
Not happy/sad	0/8	3/13	3/15	0/4
Relieved	0	1	0	0
Surprised	2	0	1	0
Worried	0	1	1	0
Think	2	10	11	9
Total	21	53	68	57

Some of the mental state words contained in the aurally presented stimuli in Chichewa are *kukhala ndi mantha* (“scared”), *kukwiya* (“angry”), *kusangalala* (“happy”), *kumva chisoni* (“sad”), *kudabwa* (“surprised”), *kudandaula* (“worried”) and *kuganiza* (“think”) (see the first column of Table 4.29).

Table 4.29 Frequency of mental state words mentioned in the participants' [re]tellings in Chichewa compared with occurrences of the mental state words in the stimulus material in Chichewa

Mental state words	Chichewa stories	Film medium (N = 34)	Aural medium (N = 71)	Pictorial medium (N = 39)
<i>Kuwopa/kukhala ndi mantha</i>	0/7	2/1	2/9	7/0
<i>Kukwiya/kupsya mtima</i>	1/0	0/1	16/1	15/0
<i>Kukhumudwa</i>	0	1	2	0
<i>Kusangalala</i>	3	11	33	22
<i>Kumva chisoni</i>	5	0	3	0
<i>Kupepukidwa</i>	0	0	0	0
<i>Kudabwa</i>	5	4	18	23
<i>Kudandaula</i>	1	1	6	0
<i>Kuganiza</i>	2	1	2	6
Total	24	22	92	73

Similar to the explanations above pertaining to information presented in Table 4.28, the mental state words that the children mentioned in Chichewa [re]tellings from the aural medium were influenced by those mental state words that were contained in the aurally presented stimuli. This is demonstrated by the fact that the total number of mental state words (92) in the Chichewa [re]tellings from the aural medium is higher than the total number of mental state words (22) in the Chichewa [re]tellings from the film medium.

It is also interesting to note that the mental state word *kusangalala* (“happy”) was mentioned most often in the [re]tellings from the aural medium. The figure for *kusangalala* in the Chichewa [re]tellings from the aural medium is higher than the figure for the same word in the Chichewa [re]tellings from the film medium (11) and pictorial medium (22) respectively. Also, this figure (i.e. 33) is higher than the figure for the word “happy” (i.e. 15) in the English [re]tellings from the aural medium (see Table 4.28). There are also relatively high figures for the words *kukwiya* (“angry”) and *kudabwa* (“surprised”) in the Chichewa [re]tellings from the aural medium (16 for *kukwiya* and 18 for *kudabwa*) and pictorial medium (15 for *kukwiya* and 23 for *kudabwa*) respectively. On the other hand, the figures for the words “angry” and “surprised” are relatively

low in the English [re]tellings from the aural medium (4 for angry and 1 for surprised) and pictorial medium (7 for “angry” and 0 for “surprised”).

These results demonstrate that the children are more inclined to assign the attributes “angry” and “surprised” to the protagonist in their Chichewa [re]tellings than in the English [re]tellings. The results also demonstrate that the children are inclined to express that the protagonist is “happy” in both languages but they are more inclined to say that he is “happy” in Chichewa versions of their [re]tellings. Finally, the results demonstrate that the children express their emotional reactions more often when telling a story in Chichewa (22 mental states in the [re]tellings from the film medium, 92 from the aural medium and 73 from the picture book = a total of 187) than in English (53 mental states in the [re]tellings from the film medium, 68 from the aural medium and 57 from the picture book = a total of 178) (Chapter 5, section 5.6, offers an explanation why there are more mental state words in Chichewa [re]tellings than in English [re]tellings). Even though, there are more mental state words in Chichewa [re]tellings than in English [re]tellings, the children in this study use few mental state words regardless of the language of story production as explained below. The low recall rate of mental state words is attributed to the fact that mental state words are associated with a ‘canonical’ story grammar and children in this study appear to be influenced by elements from Southern African folktales (see Chapter 5, section 5.8.2 for more details).

However, the children are more inclined to assign the mental states “afraid” or “scared” in their English [re]tellings (9/4 from the [re]tellings from the film medium, 11/5 from the aural medium and 8/4 from the pictorial medium) than in their Chichewa [re]tellings (2/1 from the [re]tellings from the film medium, 2/9 from the aural medium and 7/0 from the pictorial medium). They also use the word “think” more often in their English [re]tellings (10 from the [re]tellings from the film medium, 11 from the aural medium and 9 from the pictorial medium) than in their Chichewa [re]tellings (1 from the [re]tellings from the film medium, 2 from the aural medium and 6 from the pictorial medium).

Furthermore, the results in Table 4.28 demonstrate that the total number of mental state words contained in the [re]tellings of English stimulus material is 21. However, the average number of mental state words that the children used is 1.43 ($53 \div 37$) in each English [re]telling from the film medium while the average number of mental state words in each English [re]telling from the

aural medium is 1.01 ($68 \div 67$). The children also managed to produce an average of 1.21 ($57 \div 47$) mental state words in each English [re]telling from the pictorial medium. These figures demonstrate that most of the children produced an average of one mental state word (an average of 1.43, 1.01 and 1.21 is 1.2) in each English [re]telling which implies that very few mental states of the protagonist and supporting characters were mentioned.

Similarly, the results in Table 4.29 also demonstrate that most of the children produced an average of one mental state word in each Chichewa [re]telling. This is due to the fact that an average of 0.65 ($22 \div 34$) mental state words were mentioned in Chichewa [re]tellings from the film medium while an average of 1.30 ($92 \div 71$) and 1.87 ($73 \div 39$) mental state words were mentioned from the aural and pictorial medium respectively leading to an overall average of 1.27 mental state words in each Chichewa [re]telling.

The results also demonstrate that the children were unable to recall all the mental state words that were mentioned in the aurally presented stimuli when [re]telling the stories in either English or Chichewa. If they had been able to recall every single mental state word, a total of 1,407 (21×67) mental state words in English and a total of 1,704 (24×71) mental state words in Chichewa would have been contained in the [re]tellings. However, the children only recalled a total of 68 mental state words in English [re]tellings and a total of 92 mental state words in Chichewa [re]tellings. This shows that only 4.83% ($68/1407 \times 100$) and 5.40% ($92/1704 \times 100$) of mental state words in English and Chichewa respectively were recalled.

4.4.7 Summary of findings

The results demonstrate that the children's [re]tellings were influenced by elements such as "repetition", "opening formulae", "closing formulae" and "dialogues". The children used repetition at different levels (word, phrase and clause or sentence levels) in both their English and Chichewa [re]tellings. The results show that even though both the visually and aurally presented narratives contained repetitions, the repetitions that the children used were not influenced by the repetitions in the stimulus materials.

The results also demonstrate that the children inserted opening formulae when [re]tellings stories in both English and Chichewa. They did not imitate opening formulae from the visually or aurally presented stimuli because neither of these contained any opening formulae. The two film

clips and the picture book did not contain any verbal content and there were no opening formulae in the aurally presented stimuli in either English or Chichewa. The [re]tellings in English and Chichewa contained opening formulae such as “once upon a time”, “long time ago”, “one day” and “there was (once)”.

The results also reveal that the children included closing formulae when [re]telling stories in English and Chichewa. The closing formulae were not imitated from the visually presented stimuli (the two film clips or the picture book) because neither of these contained any linguistic information. However, the aurally presented stimuli contained closing formulae in both the English and the Chichewa versions. The [re]tellings provide evidence that the children were indeed influenced by the closing formulae provided in the stimulus.

The aurally presented stories did not contain any dialogue. However, the children included dialogues in their [re]tellings in both Chichewa and English. In the dialogues that the children inserted, the protagonist conversed with supporting characters and supporting characters conversed with fellow supporting characters. The results reveal that there were more dialogues in the [re]tellings of “The mole and the radio” and “The mole and the rocket” than in the [re]tellings of “Frog, where are you?”.

Furthermore, the results reveal that most of the children did not provide a setting in the [re]tellings from any of the three media of presentation, even though the visually presented stories in both the film medium and the pictorial medium begin by providing visuals of the scenery in which the protagonist is situated. Similarly, the aurally presented stimuli in the aural medium also begin by stating the exact location of the protagonist.

Additionally, the results reveal that the children did not include as many mental state words as provided in the aurally presented stimuli. The results demonstrate that most of the children produced an average of one mental state word per English and Chichewa [re]telling which shows that very few mental states of the protagonist and supporting characters were mentioned. The results also demonstrate that only 4.83% and 5.40% of mental state words in English and Chichewa respectively were recalled. These results are in line with the findings presented in sections 4.2.1 and 4.3.1 on the effects of language and medium on the narrative text structure.

The findings in sections 4.2.1 and 4.3.1 demonstrate that the children obtained low mean scores from the “mental states” element.

Finally, because the children’s [re]tellings in both English and Chichewa may have been influenced by elements from Southern African folktales (“repetition”, “opening formulae”, “closing formulae” and “dialogues”) and also because the children have demonstrated limited performance in elements that are associated with the canonical scoring schemas (“setting” and “mental states”) while they have demonstrated relatively good performance in elements that are associated with Southern African folktales (“character development” and “conclusion”), the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning are shown not to conform to the Narrative Scoring Scheme (that is, the canonical scoring schemas). These results therefore support the third prediction (refer to the predictions presented in the introduction as well as at the beginning of this chapter).

4.5 Conclusion

This chapter has presented and discussed findings obtained from the main method of data collection involved in this study namely story [re]telling tasks. The findings from the story [re]telling tasks were presented alongside aspects of the findings from the questionnaire. The information from the questionnaire has helped me to interpret findings from the main study. The results from the questionnaire, together with the results from the main study have therefore enabled me to answer the three main questions that were the principal motivation for this study.

The next chapter focuses on discussion of the findings. The discussion is shaped by the following themes that have been developed in line with the findings: cultural familiarity, L1 and L2 differences, the relationship between socioeconomic background and the development of a story schema, the relationship between storytelling background and performance in [re]tellings, the influence of stimulus materials, the influence of elements from Southern African folktales and the “universality” of the canonical scoring schemas.

Chapter 5: Discussion of the Findings

5.1 Introduction

This chapter discusses the findings presented in Chapter 4. There are three main findings that were addressed in the previous chapter. Firstly, the results of my study reveal that the two languages that were used in story production (Chichewa and English) did not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann, Miller & Nockerts, 2010a; Heilmann, Miller, Nockerts & Dunaway, 2010b) in the children's [re]tellings. Secondly, the medium of the stimulus presentation was shown not to have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children's [re]tellings. Finally, the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning were seen not to conform to the Narrative Scoring Scheme (that is, the canonical scoring schemas).

In addition to these three major findings the discussion in this chapter presents a number of other insights that contribute to one's understanding of children's narrative skills. The chapter is organised in accordance with the themes developed from the findings. In section 5.2, the discussion focusses on the influence of the language of presentation on narration of a story. The influence of the medium of the stimulus presentation on narration of a story is discussed in section 5.3. The sections that follow these discuss the influence of stimulus material on the narration of a story (section 5.4), the relationship between cultural familiarity and storytelling (section 5.5), language proficiency and knowledge of vocabulary and its significance in storytelling (section 5.6), the relationship between storytelling background and socioeconomic background with the development of a story schema (section 5.7), and children's [re]tellings in relation to the canonical narrative text structure (section 5.8).

5.2 The influence of the language of presentation on the narration of a story

This section discusses findings in relation to the first question raised in this study: Does language have an effect on narrative text structure in the [re]tellings of multilingual children with Chichewa as their L1 and English their L2? In other words, how do stories narrated in Chichewa differ from stories narrated in English? In particular, this section discusses why the children obtained low mean scores in elements 1 ("introduction") and 3 ("mental states") and high mean

scores in elements 2 (“character development”) and 7 (“conclusion”) irrespective of the language of presentation or the school type.

The results obtained from the [re]tellings of the three stories (“The mole and the radio”, “The mole and the rocket” and “Frog, where are you?”) were that the children obtained low mean scores in elements 1 and 3 and high mean scores in elements 2 and 7 irrespective of the language of presentation or the school type. These results affirm that the two languages (Chichewa and English) used in story production did not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children’s [re]tellings.

The results from the [re]tellings of the three stories in this study are contrary to the findings presented by Fiestas and Peña (2004) for bilingual Spanish-English children. Their results suggest that there *were* some differences in the way the children narrated stories in each of their languages. Some story grammar elements were associated with stories narrated in Spanish while other story elements were associated with stories narrated in English. For instance, Fiestas and Peña (2004, p. 162) found that stories narrated in Spanish contained story grammar elements, such as “initiating events” and “attempts”, which were missing in stories narrated in English (see Table 1.5 in Chapter 1 for more details about story grammar elements). By contrast, “consequences” was one of the elements included in stories narrated in English but was absent in stories narrated in Spanish. The differences in narrative styles were attributed to the differences in the children’s contextual exposure to stories. The children were exposed to storytelling in Spanish at home and in English at school. As a result, they learnt different narrative styles. Nevertheless, Fiestas and Peña’s (2004) study may be criticised because of its small sample size (N = 12) that may not be adequate to provide sufficient data about similarities and differences in the use of two languages. Fiestas and Peña (2004, p. 164) acknowledge that, “the small sample size and the age range of the children [...] did not provide sufficient data to describe typical development of the narrative skills of this population in both languages”.

The fact that children in the current study obtained high mean scores in element 2 (“character development”) and low mean scores in elements 1 (“introduction”) and 3 (“mental states”) implies that the children’s [re]tellings may have been influenced by narrative text structure elements from traditional African folktales, which do not place much emphasis on setting but on

characters and plotline (Jeppesen, 2012, p. 118) and which seem to refrain from assigning mental states to characters.

According to Jeppesen (2012, p. 118), it is rare to mention specific names and places in a Malawian folktale. Malawian folktales seem to focus on developing characters rather than settings because the audience is expected to learn some moral values from characters' behaviour and actions (Jeppesen, 2012, p. 118). The behaviour of characters in folktales is considered very important as this helps to inspire good moral behaviour in the audience. Hence, specific names and places – rather than appearing in the introduction of a story – may rather be interwoven with the 'moral lesson' part of the story which typically appears towards the end.

The children in this study seemed to have concentrated on character development in a similar manner to that done in Malawian folktales; hence they obtained high mean scores in the element "character development". Consequently they did not therefore focus much on the story's introduction (setting), as evidenced by the low scores. The results are also consistent with Tappe and Hara's (2013, p. 313) explanation that it is not necessary to present a setting in a folktale "[...] where narratives are perceived to 'belong' to the audience as much as to the narrator and where the guiding principle of narrative discourse is that of a participatory narrator-audience engagement [...]".

Furthermore, element 3, "mental states", has low scores because of similar reasons discussed above regarding the element "introduction" (setting). Mental states represent character's reactions to "initiating events", such as emotional responses, thoughts or intentions. The children's use of mental state words about the protagonist enables the child's story to move forward. According to Tappe and Hara (2013, p. 314), the main function of mental state words about the protagonist that children use is "to motivate the protagonist to become active in order to achieve a goal". Internal response/reaction may be realised in narratives through the use of internal response adjectives such as "sad", "happy" and "worried" and verbs relating to cognition such as "think", "realise" and "notice".

Like "introduction", the "mental states" element is not considered part of the narrative text structure of folktales in Southern Africa (Tappe & Hara, 2013, p. 314). Tappe and Hara argue that the focus in folktales in Southern Africa is not so much on "[...] the protagonist as an

individual with distinct feelings and motives that are grounded in their own affective state; rather, the protagonist becomes a schematised representative for a type of person". Another reason, as pointed out by Scollon and Scollon (1981), is the fact that it is not appropriate in some cultures, such as the Athabaskan culture, for people to make predictions about the future, to reveal their plans or to assume that they have knowledge about other people's thoughts or feelings. Furthermore, Makgamatha (1991, p. 43) explains that characters in folktales are described in such a way that qualities relating to character's thoughts or feelings are avoided.

Furthermore, the fact that high mean scores were obtained in element 7 "conclusion" in the "Frog, where are you?" story, and one high mean score and two high mean scores were also obtained in this element in the 'radio' and 'rocket' stories respectively demonstrates another influence on the narrative text structure elements derived from traditional African folktales. Traditional African folktales place much emphasis on "conclusion", as this is where narrators end their stories with a closing formula and a moral lesson or statement (Chimombo, 1988; Jeppesen, 2012). The latter was reflected in some of the stories that children in this study narrated, as seen in the following examples:

- a. Kenako mfuko anakhala mosangalala kenako mfuko analeka kupanga zovutitsa zija
(Then the mole was happy then he stopped doing naughty stuff)
- b. Chilichonse chinakhala mmalo mwake ayambanso kucheza kukhala bwinobwino.
(Everything was in its place and they started chatting again and lived well)
- c. "Huh! That's what I wanted I have my friends, I don't want to have the radio again"

All the examples are from "The mole and the radio" but the first one is from condition 3 (Chichewa [re]tellings from Chichewa aural stories), the second one is from condition 5 (Chichewa [re]tellings from English aural stories) while the last one is from condition 2 (English [re]tellings from English aural stories). Moral statements are evident in the examples above when the children say, "then he stopped doing naughty stuff", "they started chatting again and lived well" and in (c.) where the mole sees how valuable friends are compared to the radio. This indirectly tells the listener that it is not good to be naughty but it is good to live well and value friends. The children, as evident from these examples, used these moral statements regardless of the language of the aurally presented story.

The fact that children in this study have been influenced by elements from Southern African folktales through their performance in the following elements: “introduction”, “character development”, “mental states” and “conclusion”, suggests that narratives produced by African children may not conform to the widely used story grammar (e.g., Anderson & Evans, 1996; Stein & Glenn, 1979) and story schema (e.g., Mandler, 1982). These results therefore suggest that stories narrated by Southern African children reflect a specific story grammar and a specific story schema, which may be referred to as an “African story grammar” and an “African story schema” respectively. These results therefore make one question the suggestions made by Mandler et al. (1980) that the kind of story schema found throughout different population groups might be a cognitive universal.

Furthermore, the results discussed in this section are consistent with the demographic information provided that most of the participants were regularly exposed to oral traditional practices including the telling of Southern African folktales. For instance, when parents were asked to identify oral traditional practices known by their children, they included traditional folktales on the list even when traditional folktales was not one of the practices provided for in the questionnaire (see question 9 in Appendix 2). In particular, the results from the questionnaire demonstrate that 61 out of 69 children from Kapita primary school had knowledge of traditional linguistic practices such as riddles, songs, poems and proverbs. The results further demonstrate that 51 out of 58 children from Mphungu primary school had knowledge of these traditional linguistic practices.

The discussion in this section has demonstrated that the language used does not influence the narrative text structure of children’s [re]tellings because the children narrated stories in both English and Chichewa that were comparable in terms of story grammar elements. The discussion has also demonstrated how children’s [re]tellings are influenced by narrative elements from Southern African folktales. As a result, it is argued that stories narrated by Southern African children seem to reflect a Southern African story grammar and a Southern African story schema.

The next section focuses especially on children’s recall of story grammar elements when [re]telling stories derived from three different modes of presentation.

5.3 The influence of the medium of the stimulus presentation on the narration of a story

The discussion in this section focuses on the findings in relation to the second question raised in this study: Does the medium of the stimulus presentation (picture book, film, aural presentation) influence the children's narrative text structure? This section also discusses how and why the hypothesis that both groups of children (Kapita and Mphungu) would perform well due to the *visual superiority effect hypothesis* (Rolandelli, 1989, p. 71) when telling stories in either English or Chichewa, elicited after viewing a film, has been supported. In the discussion reference is made to findings of other studies that compared different media of presentation. Towards the end of the section, the discussion focuses on factors that contribute to the recall advantages of a television presentation.

The results demonstrate that the children obtained low mean scores in elements 1 "introduction" and 3 "mental states" and high mean scores in elements 2 "character development" and 7 "conclusion" irrespective of the medium of presentation or the school type. The results of the influence of the medium on the narration of a story are similar to the results discussed in section 5.2. It may therefore be concluded that the medium of the stimulus presentation did not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children's [re]tellings.

These findings are similar in one way and different in another from the findings in Hayes and Kelly's (1985) study, which investigated the reflection of story grammar elements in children and adults' recall of radio and television shows. They are similar in the sense that Hayes and Kelly's (1985) results demonstrate that both children and adults' recalls were consistent in their reflection of story grammar elements regardless of the medium of presentation (television versus aural). In particular, their results demonstrate that the scores for the "setting" element were better than those for the "ending" element ("setting" is referred to as "introduction" whereas "ending" is referred to as "conclusion" in my study) in both media of presentation. Their results are also similar to the results of my study because lower scores were obtained for the "reaction" element ("reaction" element is referred to as "mental states" in my study) irrespective of the medium of presentation. Their findings are summarised as follows "[f]or all subjects, recall of setting, and outcome information surpassed that of reaction, ending, or beginning events" (Hayes & Kelly, 1985, p. 345).

However, Hayes and Kelly's (1985) results do not concur with mine in the sense that scores for the "ending" element (that is, "conclusion") are higher than scores for the "setting" element (that is, "introduction"). In a similar manner to my study, Ricci and Beal's (2002, p. 141) results from their study, which investigated the effect of interactive media on children's story memory, demonstrate that their subjects performed better in inclusion of "initiating events" and "outcomes" elements than the "setting" element in their stories. Ricci and Beal report that the pattern of often recalling less setting information than the other components was similar across all the media conditions in their study.

Unlike my results, Hayes and Kelly's (1985) are aligned with the general trend in literature that children and adults recall "setting", "beginning", and "outcome" information better than "ending" and "reaction" information (Mandler, 1978; Mandler & Johnson, 1977). According to Mandler and Johnson (1977, p. 133), the reason that the "ending" and "reaction" elements are poorly recalled, is that these two elements are examples of elements that are "optionally deletable from the surface structure". When these elements are deleted from or not included in the recall, they do not have any effect on the ideal structure of a story. When the "setting", "beginning" and "outcome" elements are deleted from or not included in the recall, according to Mandler and Johnson (1977, p. 130), they violate the ideal story structure to the extent of "destroying the well-formedness⁸⁷ of the story". In this way, Mandler and Johnson regard the "setting", "beginning", and "outcome" elements as the most important elements of a story. However, one may argue that the setting element may not necessarily be one of the basic elements of a story because it is possible for one to follow a story that does not include this element. For instance, as alluded to earlier on, folktales from Southern Africa do not regard the setting element as a basic element of a story and when this element is left out it does not have any effect on its structure.

The findings of my research are also akin to the findings of Baggett (1979), who investigated the effects of the medium on recall of structurally equivalent stories in film and text. However, her study did not investigate the story elements employed as measures in the canonical scoring schemas. The main task in her study was to investigate whether subjects would recall their

⁸⁷ According to Mandler and Johnson (1977), a well-formed story has an ideal story structure. It contains all the elements of a story according to the canonical narrative text structure.

stories using the following structure: exposition, complication and resolution. In particular, she wanted to investigate whether the structure of an episode is recalled better in one medium than in another. Her results demonstrate that recall of structural elements was very similar in both media in the [re]tellings elicited soon after the presentation. According to Baggett (1979, p. 345), subjects' recall of text structure was "almost equal and essentially perfect" at zero delay (recalls produced soon after the presentation), "essentially perfect" because the recalls conformed to the "exposition, complication and resolution" structure. In particular, subjects who listened to aural text missed 5.35% of the structure at 0 delay whereas subjects who watched a film missed just 4.35% of the structure at 0 delay (Baggett, 1979, p. 345).

Additionally, my study's findings are comparable to Beentjes and van der Voort's (1991) in the sense that in their study no significant differences were observed in terms of the proportion of story grammar elements that were reflected in the subjects' story recalls from television and print. Even though results obtained from younger children (fourth graders) seemed to have been more dependent on the medium used than the results from older children (sixth graders) showed, the younger children's recalls from television were more correct and complete than their recall from a printed story (Beentjes & van der Voort, 1991, p. 98). Beentjes and van der Voort (1991) attributed such results to the fact that fourth graders' reading skills had not yet developed to the level of those of sixth graders. It may however be assumed that if Beentjes and van der Voort (1991) had used aural stories, the results for the comparison of medium would have been similar for both groups of children because the recall advantage of television has been found to operate in a comparison between television and an audio mode of presentation (Gunter, Furnham & Griffiths, 2000, p. 105). However, Beentjes and van der Voort's results demonstrate that the reflection of story grammar elements in recalls from print deteriorated after a two to three week delay; such results are therefore similar to Baggett's (1979) findings which reveal that the recall of structural elements was very similar in both media at zero delay but deteriorated faster for text subjects as noted in the results at a 7 day delay. Beentjes and van der Voort (1991, p. 102) concluded that "[c]ompared to text, television seems to be an effective medium for longer-term retention of information."

Furthermore, the results of the comparison of medium in my study regarding how the children performed in each one confirm that the film medium evinced higher mean scores than the other

two media of presentation (aural and pictorial). The results demonstrate that there are significant differences between scores obtained from the following comparisons: the film medium with the aural medium and, the film medium with the pictorial medium. In particular, the results from Kapita primary school demonstrate that there is a significant difference between scores in the comparison between the film medium and the aural medium (a p -value of 0.000 was obtained for the following comparisons: 'radio' story (film versus aural) and 'rocket' story (film versus aural)) and also the comparison between the film medium and the pictorial medium (a p -value of 0.000 was obtained for the following comparisons: the 'radio' story versus 'frog' story, and the 'rocket' story versus the 'frog' story). In addition, the results from Mphungu primary school affirm that there is a significant difference when scores from the film medium are compared with scores from the pictorial medium (a p -value of 0.001 was obtained for the 'radio' story versus the 'frog' story).

Significant differences (a p -value of 0.001) were also reported in Walma van der Molen and van der Voort's (1998, p. 47) study in which children produced [re]tellings from television news stories and their print versions. Walma van der Molen and van der Voort (1998, p. 47) report that their findings were in keeping with their predictions in the sense that "the television news stories were not only recalled better than the literal transcripts of the television narratives [...] $p < .001$ but were also recalled better than both newspaper version 1 [...] $p < .002$ and newspaper version 2 [...] $p < .001$ ". Another study that Walma van der Molen and van der Voort (2000a, p. 147) conducted on children's and adults' recall of television and print news reported similar findings. Viewers recalled more information than readers and a significant difference between responses to television and print media was found (a p -value of 0.019 was reported). Gunter, Furnham and Griffiths (2000) reported similar findings in their study, which focussed on a comparison of recalls from three presentation media (television, print and audio). Their results demonstrate that television stories were recalled significantly better than the print (p -value of 0.006 was obtained) or audio stories (a p -value of 0.027 was obtained) (Gunter, Furnham & Griffiths, 2000, p. 106). However, there was no significant difference evident from the print and audio comparison because a p -value of 0.87 was found.

One could argue that the recall advantage of television in Walma van der Molen and van der Voort's (2000a) study would be likely when comparing recalls from television with print in

particular because children may not have acquired sufficient reading proficiency to fully benefit from news presented in a print medium. In addition, one may also argue that the recall advantage of television was likely due to the fact that in Walma van der Molen and van der Voort's (2000a) study children watched short news stories that lasted only 2 minutes. It was therefore not a great challenge for children to remember content from such a short piece. However, the recall advantage of television has been elucidated in other studies that had television and audio presentations lasting eight minutes (Gunter, Furnham & Griffiths, 2000, p. 105). Furthermore, the recall advantage of television has also been equivalent for both more and less proficient readers, even though more proficient readers remembered more content than less proficient readers, irrespective of the medium of presentation (Walma van der Molen & van der Voort, 1997, 1998, 2000b).

The results of my study confirm the prediction put forward in the introduction and again at the beginning of Chapter 4, and are in line with what has been documented in literature; namely that children remember more visual than auditory content. Hence information presented through the audio-visual (television/video) medium seems to be superior in enhancing recall when compared to information presented through the auditory medium (radio/aural presentation) alone (Furnham, de Siena & Gunter, 2002; Gunter, Furnham & Griffiths, 2000; Hayes & Birnbaum, 1980; Hayes, Chemelski & Birnbaum, 1981; Hayes, Kelly & Mandel, 1986; Walma van der Molen & van der Voort, 1997, 2000b). According to Rolandelli (1989, p. 69, 71), "the visual modality of television is more salient and memorable" to children when compared to the auditory modality; this phenomenon is referred to as the 'visual superiority effect'. Hayes, Kelly and Mandel's (1986) study reveals that preschool children (aged between three and six) made significantly more errors in comprehension and memory when recalling the content of a story presented in the audio format (radio) than in the audio-visual format (television). Errors such as the inclusion of events and characters that were not part of the story, and the distortion of story events and characters occurred more frequently in the radio presentation than in the television presentation.

In a similar respect to Hayes, Kelly and Mandel's (1986) study, children in Beentjes and van der Voort's (1991, p. 97) made more errors when [re]telling the story based on the print version than

the film version. Beentjes and van der Voort found a grade effect⁸⁸ in the performance of the children because it was only fourth graders who made a greater number of errors in recalls from the print condition than sixth graders. However, there are some studies that have not found any grade or age effect⁸⁹ on the performance of children in recalling stories from television news stories and print versions, for instance, Walma van der Molen and van der Voort (1998) report that the children who watched television remembered more information than the children who read the story, irrespective of their grade (fourth graders versus sixth graders) or age (mean ages: 9;8 versus 11;6).

Other researchers too have reported findings that support the *visual superiority effect hypothesis* (Greenfield & Beagles-Roos, 1988; Hayes & Kelly, 1984; Meringoff, 1980; Pezdek, Lehrer & Simon, 1984; Pezdek, Simon, Stoeckert & Kiely, 1987; Pezdek & Stevens, 1984). Pezdek and Stevens (1984) found that in regular television programmes, that is, programmes in which both auditory and visual information is provided, the visually presented information appeared to be more salient and more memorable than the aurally presented information. However, this does not mean that the visual mode of presentation is sufficient in itself in terms of comprehension of programme content. The visual modality complements the audio modality and vice versa. In agreement, Rolandelli (1989, p. 72) states that, “while the visual modality has been found to facilitate auditory processing” as observed in the study conducted by Rolandelli, Wright and Huston (1985), “the auditory component can facilitate visual processing as well”.

The recall advantage of visual input in particular dynamic visual input like in films has generally been found in research that used different modes of presentation; television stories versus radio stories (Beagles-Roos & Gat, 1983; Greenfield & Beagles-Roos, 1988; Hayes & Birnbaum, 1980; Hayes, Chemelski & Birnbaum, 1981; Hayes & Kelly, 1985; Hayes, Kelly & Mandel, 1986; Pezdek, Lehrer & Simon, 1984); television news versus print news (Walma van der Molen & van der Voort, 1998, 2000a); television news versus audio news versus print news (Gunter, Furnham & Griffiths, 2000); visual only stories versus audio only stories versus audio-visual stories (Hayes & Kelly, 1984); television stories versus print stories versus audio stories

⁸⁸ A grade effect implies that children in the upper grades outperformed children in the lower grades.

⁸⁹ An age effect implies that older children performed better than younger children.

(Baggett, 1979); print stories versus television stories (Beentjes & van der Voort, 1991); audio-visual (picture format) versus television stories (Meringoff, 1980) and audio only versus audio-visual versus interactive viewing⁹⁰ versus interactive observing⁹¹ (Ricci & Beal, 2002). The recall advantage of movies/films has also been evident in research that considered participants from different age groups (young children, older children and adults) (Hayes, Kelly & Mandel, 1986; Walma van der Molen & van der Voort, 2000a).

There are a number of factors worth considering that contribute to the recall advantage of visual input. Firstly, movies/films may be perceived as being more enjoyable and attractive than print or audio input (Linebarger & Piotrowski, 2009; Walma van der Molen & van der Voort, 1998). Walma van der Molen and van der Voort (1998, p. 49) argue that because children are more familiar with and attracted to movies/films than print or audio text presentations, they end up paying more attention to news and stories presented in the visual medium than to news and stories presented in print or the audio medium⁹². Secondly, according to Linebarger and Piotrowski (2009, p. 51), some of the information that is presented through the movies/films is redundant. Redundancy in the movie/film medium therefore enables children to grasp the main content reflected in a story even when they are not paying close attention to it. Thirdly, children's construction of mental models in a movie/film presentation is not obstructed by limitations of verbal memory and attentional resources (that is, paying attention to sentence form, lexicon, or prosodic cues) that are associated with print and audio presentations (Gutiérrez-Clellen, 2002, p. 190).

The fact that not all Southern African children may have exposure to movies/films does not necessarily imply that Southern African children have less exposure to storytelling than Western children. Some African children, in particular Malawian children, have exposure to folktales (*nthano* in Chichewa) on a daily basis. Jeppesen (2012) provides a detailed account of how

⁹⁰ Each child in this situation viewed a story and interacted with animated areas of the screen (Ricci & Beal, 2002, p. 139).

⁹¹ Two children together watched animated characters on the computer. One controlled the computer by activating the animated characters. The other child was not given the role of controlling the computer; hence s/he was an interactive observer (Ricci & Beal, 2002, p. 139).

⁹² However, familiarity with television may not apply to all African children continentally. Many children in the rural areas may not have a television.

Malawians living in the southern part of Malawi in the areas known as Chisitu and Nkhuta benefit from storytelling. He explains that “*nthano* is part of the everyday lives of the people there – whether in the traditional context of live performances at home, in schools, on the radio, etc” (Jeppesen, 2012, p. 51)⁹³.

Besides the information presented from his study in the paragraph above, Jeppesen (2012, p. 59) also conducted a mini-survey to find out whether or not *nthano* is still being practiced in Nkhuta village. If it is practiced Jeppesen wanted to know how it is practiced, who practices it and how often it is practiced. If not, Jeppesen wanted to know the reasons for its not being practiced. The results from Jeppesen’s survey confirm that folktales are practiced in Nkhuta village. In particular, the results reveal that out of the 33 households that were interviewed

[...] seven households had active storytellers performing at least once a week, but with members of five other households going for neighbouring performances, the ‘domestic storytelling exposure’ in the everyday lives of the community members was up to 35% (51 in absolute numbers) (Jeppesen, 2012, p. 59).

Jeppesen was informed that apart from the live storytelling performances that take place in villages, there are other avenues that people use to listen to or perform *nthano*, such as radio and school. Jeppesen (2012, p. 59) was also informed “that many school children from households practicing *nthano* would perform them not only informally as part of playing with each other, but also formally in class as part of the Primary School Curriculum”.

Apart from the demographic information parents provided regarding the children’s storytelling background knowledge in this study (62 out of 69 children from Kapita listen to storytelling at home whereas 57 out of 58 children from Mphungu listen to storytelling at home), findings from Jeppesen’s research also provide comprehensive explanations as to why children’s [re]tellings in this study were influenced by elements from Southern African folktales.

This section has placed emphasis on the recall advantage of television. In the discussion, it has been pointed out that the recall advantage of television has been found to be present in several

⁹³ Even though my study took place in the central part of Malawi (i.e. Lilongwe), *nthano* is also part of the everyday lives of the people living in Lilongwe.

studies that used different media of presentation and also studies that considered participants from different age groups. This section has also pointed out that even though children from the rural areas of Malawi may not have access to television, they have exposure to storytelling through other avenues such as live performances of *nthano* that take place in communities, at school and also on the radio. In addition, the data discussed in this section has revealed that the medium of the stimulus presentation has not influenced the narrative text structure of children's [re]tellings because the children have narrated stories that are comparable in terms of story grammar elements in the three media of presentation.

The next section looks at how the aurally presented stories may have influenced the way the children introduced and concluded their stories.

5.4 The influence of the stimulus material on narration of a story

This section provides a discussion of whether the overall scores obtained for story elements such as the "introduction" reflected the influence of the stimulus material. It also deliberates the low scores for the [re]telling of a 'frog' story. Finally, the section presents the argument that even though the ending of the children's [re]tellings of the aurally presented stories appear to have been influenced by the closing formula that were present in the stimulus material, the children were actually narrating their stories employing elements associated with African folktales, hence they narrated their stories using their Southern African story grammar.

The results evinced from my study demonstrate that the [re]tellings of both groups of children (Kapita and Mphungu) often lack an introduction; hence there are generally very low scores for the "introduction" element, irrespective of the language of presentation or school type. However, the scores are not too low⁹⁴ (i.e. an average of 2.1 for the rocket story as compared to an average of 1.8 for the radio story) when "setting" information is provided in the stimulus material before the protagonist is introduced. Also, the scores are not too low (i.e. an average of 2.0 for the frog story as compared to an average of 1.8 for the radio story) when detailed setting information is provided. In particular, the scores for both groups of children are not too low (i.e. there is only one very low score for element 1 for the rocket story as compared to four very low scores for the

⁹⁴ According to the adapted version of Heilmann et al.'s (2010a, 2010b) Narrative Scoring Scheme, scores that are low have a value of less than 2.5.

same element for the radio story) when [re]telling the rocket story (see scores that appear in red in Table 4.2, Table 4.3 and Table 4.4 in Chapter 4 to compare scores that the children obtained for the “introduction” element when [re]telling the ‘radio’, ‘rocket’ and ‘frog’ stories respectively) because setting information is introduced in the rocket story before the mole, the protagonist in the story. Additionally, detailed setting information is given for the ‘rocket’ story. This is demonstrated in the following extract from the ‘rocket’ story that the children listened to.

There is a big pile of sand, an upside-down red bucket and a spade on the beach. Suddenly, the bucket shakes and underneath it a small sand-pile appears. The pile grows bigger and bigger, pushing the bucket, higher and higher. Then all of a sudden the bucket falls down the side of the sand pile. Hop. Hop. Hop. It trips over the spade, flips on its side, and then rolls along the beach. As the bucket stops, out pops a little mole!

The extract above demonstrates that the ‘rocket’ story introduces the setting before it does the protagonist. It also demonstrates that detailed setting information is given. In particular, the protagonist is introduced in the fifth line. However, unlike in the ‘rocket’ story, the ‘radio’ story listened to by the children begins by introducing the protagonist before introducing any setting information. In particular, the mole is introduced immediately in the first line of the story as shown in the following extract. Also, in contrast to the ‘rocket’ story, the ‘radio’ story does not contain detailed setting information.

A little mole lives in a forest with lots of trees, plants, flowers and even some mushrooms. One day, the mole pops his head out of his mole-hill, a home for moles, and looks left, right, then up. Above him he sees three little birds.

The aural stories reflect the film versions where the protagonist appears at the very beginning (that is, in the ‘radio’ film) and where it takes equally long for the mole to appear (that is, in the ‘rocket’ film). Because the ‘rocket’ story focuses on the setting of the story (that is, the spatial location) at the beginning rather than the protagonist, as in the ‘radio’ story, children’s [re]tellings too tended to be influenced by such beginnings, hence the scores obtained for element 1 “introduction” from the ‘rocket’ story are not as low as scores from the ‘radio’ story.

Furthermore, children's [re]tellings from "Frog, where are you?" may have been influenced by the visual images in the picture book. For instance, the first page of the "Frog, where are you?" storybook presents visual images of the characters in the story as well as the setting (and in particular, spatial setting). The picture on the first page explicitly illustrates the setting of the story, which is the bedroom. It might have been comparatively easy therefore for the children to include the setting information in their narratives. As in the 'rocket' story for the "outcome" element, scores from the 'frog' story for the "introduction" element are not as low as scores for the 'radio' story.

The findings in this study pertaining to the "introduction" element are in contrast to the findings in Acker's (2012) study of narratives produced by South African children with English or Afrikaans as their primary language. Having examined Acker's (2012, p. 80) results we are able to conclude that the children predominantly included "setting" information in the narratives that they produced from a wordless picture book. Significantly, 55% of the children in the age group five to six years, 88% of the children in the age group six to seven years, and 100% of the children in the age group eight-and-a-half to nine-and-a-half years inserted "setting" information into their narratives. An explanation for such results in Acker (2012) might be that since the children had English or Afrikaans as their primary language, it is possible that they might have had greater exposure to a canonical story schema than a Southern African story schema. As a result, they performed well in the "introduction" element. According to the findings in my study, the "introduction" element is associated with a canonical story schema and not a Southern African story schema; hence the children in this study who seem to have acquired a Southern African story schema obtained low scores for this element (see section 5.2 concerning the reason children obtained low scores from the "introduction" element).

The results in my study also demonstrate that unlike the 'radio' and 'rocket' stories, the "Frog, where are you?" story recalls obtained high mean scores in element 7 "conclusion" irrespective of the school type. The reason for this is similar to that pointed out earlier on, that the visual images in the storybook provide a clear indication of the end of the story. The visual images therefore guided the children on how to conclude their story. For instance, in the last picture the boy is shown to be carrying one of the baby frogs and waving at the rest of the frogs. With the presence of these strong visual images or cues, it seems to have been easier for the children to

produce a “conclusion” in their [re]tellings from the pictorial presentation whereas they found it more difficult to conclude the [re]tellings that were elicited from film and audio recordings. In the latter cases the children had to depend on memory to [re]tell stories.

The results above pertaining to [re]tellings from the “Frog, where are you?” story are in agreement with Shapiro and Hudson’s (1991, p. 971) (see Chapter 2, section 2.5.3) assertions. They explain that when picture sequences are used for stimulus, they depict a structure that children follow when narrating their stories; hence there is no need for them to expend their effort on structuring the story. In the same way, there was no need for the children in my study to expend their effort on thinking about what to say in regard to the “introduction” and “conclusion” because the pictures should have guided them in terms of how to introduce and conclude the story.

One would therefore expect recalls from a picture book to be more comprehensive than recalls from an aural story in accordance with the explanations given above. Surprisingly, the results from recalls of the picture book are not as good in this regard as the results from the other two media of presentation (film and aural). These results are inconsistent with what other researchers have found in studies that compared recalls from aural stories and picture books (Bishop, 1997; Gutiérrez-Clellen, 2002). For instance, the results of Gutiérrez-Clellen’s (2002, p. 187) study demonstrate that children were able to narrate more well-structured stories from the picture book, “Frog, where are you?” (Mayer, 1969) than from the aural story, “The tiger’s whisker”, that they had listened to. In other words, the children were able to include information pertaining to all story grammar elements in self-generated stories using the picture book, “Frog, where are you?” but they did not manage to include such information in narrative recalls of the story “The tiger’s whisker”.

Furthermore, her results demonstrate that children who performed poorly in recalls in English from the “The tiger’s whisker” story were able to produce better narratives in English from the “Frog, where are you?” story. The reason for such results, according to Gutiérrez-Clellen (2002, p. 190), is that it was relatively easy for children to construct a mental model for the “Frog, where are you?” story whereas it was a challenge for them to do so for the “The tiger’s whisker” story because they had to use “sufficient memory and attentional resources to keep track of incoming sentences”. Her explanation for the results is summarised in the following quotation:

“If verbal memory and attentional resources are taxed by an unusual focus on sentence form, lexicon, or prosodic cues, information needed for the construction of the story may be missed and, as a result, the narrative recall may be incomplete or problematic” (Gutiérrez-Clellen, 2002, p. 190).

The explanation given above might have been relevant in Bishop’s (1997) and Gutiérrez-Clellen’s (2002) studies, in which the children obtained better scores for recalls from the “Frog, where are you?” story than “The tiger’s whisker” story. However, such results were not obtained from my study and therefore there must be other explanations to justify the children’s limited performance in [re]tellings from the “Frog, where are you?” story. These explanations concern the concept of familiarity and are explained in detail in the next section.

Furthermore, the results of the ending of the children’s [re]tellings in my study appear to have been influenced by the closing formula that was inserted in the aurally presented stories. The results in Table 4.24 in Chapter 4 demonstrate that the ending of the children’s [re]tellings in English was similar to the ending inserted in the aurally presented stimuli. Some children similarly inserted “this is the end of the story” or similar versions of this such as “the end of the story” or “that is the end” as shown in the first example in Table 4.24. Similarly, the results in Table 4.25 demonstrate that the ending of the children’s [re]tellings in Chichewa appear to have been influenced by the closing formula “*Nkhaniyi yathera pano*” (“this is the end of the story”) that was inserted in the aurally presented stimuli. Some children inserted “*Nkhani yanga yathera pomwepo*”, “*nkhani yathera pomwepo*” (“this is the end of the story”) and other similar statements as shown in the first example in Table 4.25, which are similar to the closing formula inserted in the aurally presented story in Chichewa.

The closing formulae from the stimulus materials did not influence the way the children concluded their stories even though it appears that there are similarities in their expression of the endings from the aural stories. The children were actually narrating their stories in accordance with their Southern African story grammar and Southern African story schema. The ending “*Nkhani yanga yathera pomwepo*”, “*nkhani yathera pomwepo*” (“this is the end of the story”) and other similar closing formulae are in line with the closing formulae for Southern African folktales (Chimombo, 1988, p. 111). In comparison, the Fipa people from Tanzania also use closing formulae similar to the ones used by the children in this study such as *icilaayi cane*

caapeela (“my story has come to an end”) or *icilaayi cane caasila* (“my story is finished”) (Willis, 1978, p. 27).

Furthermore, in support of the claim that the children were using closing formulae from Southern African folktales, the children also inserted other closing formulae that are typical of Southern African folktales at end of their stories such as “*Basi*” (“*basi*” is a sign of completion) and similar versions such as “*Basi ndatha*” (“I have finished”) and “*Basi inathera pompo*” (“the story ended there”). According to Chimombo (1988, p. 92), the different versions of “*Basi*” illustrated here are some of the most popular closing formulae in Chichewa folktales. For example, the folktale (“The hare and the well”) that Chimombo (1988, pp. 110-111) uses in his book to demonstrate analyses of oral transcripts, ends with the statement “*Basi mpamene inathera*” (“this is where the story ended”). The rate of occurrence of these closing formulae (“*Basi*” and other similar versions) as demonstrated in Table 4.25 in Chapter 4 (7 from “The mole and the radio”, 6 from “The mole and the rocket” and 2 from “Frog, where are you?”) is comparable to the rate of occurrence of the closing formulae “*Nkhani yanga yathera pomwepo*”, “*nkhani yathera pomwepo*” (this is the end of the story) and other similar closing formulae (8 from “The mole and the radio”, 4 from “The mole and the rocket” and 2 from “Frog, where are you?”) in [re]tellings.

The argument that the children were using closing formulae derived from Southern African folktales may further be supported by the way some children in this study regarded the stories that they [re]told as “*nthano*” (“folktale”) as portrayed in the following closing formulae that they inserted: “*ndi pomwe inathera nthano pomwe ndikukumbikira ine*” (“this is where the folktale ended from what I can remember”) and “*kenakono basi pothera panthano mpamenepa*”, (“then this is where the folktale ends”) and “*basi nthano inathera pomwepo*” (“this is where the folktale ended”).

The findings in this study have therefore demonstrated that the children were clearly influenced by elements from Southern African folktales, which in turn suggests that the schemata that the children have acquired for storytelling are in line with the narrative structure of Southern African folktales. In other words, the children in this study have acquired an African story schema that helps them to understand and recall stories. As a result, the children ended their stories in a similar way to the traditional ending of Southern African folktales. To support the findings in my

study further, there is evidence in the literature that children are guided by the schemata they have acquired, when recalling stories. The results of Mandler's (1978) study in which children and adults listened to canonical and non-canonical stories reveal that children depended more on familiar schemata when recalling stories than adults. The children in my study also relied on their familiar schemata (that is, Southern African story schemata) when [re]telling stories.

This section has provided a discussion of the influence of the stimulus material on the narration of a story. It has demonstrated that even though children obtained very low scores for the "introduction" element, their scores were not very low for recalls from the 'rocket' and 'frog' stories (i.e. an average of 2.1 and 2.0 for the rocket and frog stories respectively as compared to an average of 1.8 for the radio story). In particular, the children's performance in including the "introduction" element in the rocket story was influenced by the way the film and the aural version thereof were introduced. This section has also demonstrated that the children's performance in inserting the "introduction" and "conclusion" elements in the frog story was influenced by the visual images provided in the "Frog, where are you?" storybook. The children's limited performance in relating the 'frog' stories is attributed to their unfamiliarity with the conceptual framework thereof especially the concept of keeping a frog as a pet (a detailed discussion concerning the concept of familiarity is presented in the next section).

The findings in this study have also revealed that the ending given in children's stories was a result of the influence of elements from Southern African folktales. It has been argued that the schemata that the children in this study have acquired for storytelling is parallel to the narrative structure of Southern African folktales. The children were narrating stories in line with their Southern African story schema.

In the next section, greater detail regarding the relationship between cultural familiarity and storytelling is provided with special emphasis on how children's performance in their [re]tellings of the three stories ('radio', 'rocket' and 'frog' stories) might have been due to the concept of cultural familiarity.

5.5 The relationship between cultural familiarity and storytelling

This section specifically discusses the reason for scores obtained from the 'rocket' and 'frog' stories being lower than those obtained from the 'radio' story. This seems to be due to children's

cultural familiarity with the stimulus material; or rather a lack thereof. In the discussion, I make reference to two stories that the children narrated. I also make reference to “setting” information that the children included in their stories. The results are discussed in comparison with findings from studies conducted on the relationship between cultural familiarity and comprehension of a story, amongst which are, Erten and Razi (2009) Bartlett (1932) and Anderson and Pearson’s (1984) studies.

The findings of my study demonstrate that the children have higher mean scores for recalls of the ‘radio’ story than the ‘rocket’ and the ‘frog’ story irrespective of the language of presentation or production or of the school type (refer to Table 4.5 and Table 4.6 in Chapter 4). Such findings are attributed to the fact that a radio and activities involving a radio are more familiar to Malawian children than a rocket or activities involving a rocket. Besides, most people in Malawi own a radio. It may therefore be argued that it was easy for the children to recall the ‘radio’ story well because it featured the radio and event that directly relate to the radio; radios are familiar objects to both private and public school children.

In contrast, the children obtained low mean scores for recalls from the ‘rocket’ story because the rocket may not have been familiar to most children participating in the study. Moreover, the ‘rocket’ story featured characters that live in the ocean and children who live inland may not have recognised these characters. Recalling a story that was alien, with unfamiliar characters may well have been a challenge to most of the children in this study. Accordingly, the results from the ‘rocket’ story are consistent with what has been documented in the literature; namely that participants perform relatively well in recall tasks involving stories that are culturally familiar, with familiar names of characters, places and other objects (Alptekin, 2006; Erten & Razi, 2009; Jalilifar & Assi, 2008; Johnson, 1981; Li & Lai, 2012). For instance, Erten and Razi (2009) investigated how cultural familiarity influences comprehension of short stories. In their investigation, they ‘nativized’ the story that they used for reading comprehension by changing the names of characters, places, streets and buildings from American to Turkish. They also changed some conceptual cues in order to ensure that the story had a Turkish-specific schema. The results of their study indicate that there was better comprehension of the ‘nativized’ story, that is, scores from the ‘nativized’ story were higher than scores from the original story. Similarly, findings in Sasaki’s (2000) study indicated that participants who read a text with

culturally familiar names performed better in a free recall task than those who had read the same text with unfamiliar names (see Chapter 1, section 1.9.7.4 for more details).

The explanation of results of studies that investigated the relationship between cultural familiarity and comprehension of stories given above is also relevant to an explanation of why the children obtained low mean scores in recalls from the ‘frog’ story. The children who were [re]telling stories in this study may not have been familiar with the content of the frog story. In particular, the idea of keeping a frog as a pet may not have been familiar to a Southern African child. Some children therefore narrated their stories without including the expected problem-resolution plot structure (that is, that the story revolved around finding a lost frog).

More stories from Mphungu than Kapita (37 out of 86; 20 from Mphungu and 17 from Kapita) did not include the expected problem-resolution plot structure (that is, that the story revolved around finding a lost frog). Examples 1 and 2 below from stories narrated by the children from Kapita illustrate the way the children narrated their stories without including the expected problem-resolution plot structure.

Example 1

Once upon a time there was a boy and the boy was with his dog. One day he went to sleep, when he was sleeping he was thinking. He was, how can I say, it was just like somebody had shouted at him. Somebody shouted at him. So in the morning he woke up, he was telling his dog Uum signs, he was telling his dog to take what/to wake up and when he got his dog he was sad, when he was sad he started throwing everything and then he opened the window. He went to the forest shouting/calling something at the forest. And then he saw a clue, when he saw the clue, he saw a house of bees and then the dog made the house of the bees to fall down and the bees started getting away from the house. And then the bees was chasing the, what is that animal again? this, a dog I think...

Example 2

Once upon a time there was a boy and he was ... and he was with a dog, and then he was sleeping, after sleeping, she woke up and then she looked at the window. After looking at the window she took his dog and then he went to the bedroom. After going to the bedroom

he went to the window and then went out with his dog and then his dog wanted honey and then she started crying, after crying the dog started running away...

Both examples illustrate that the idea of keeping a frog is alien to the children who narrated these stories. This is demonstrated by the fact that the children do not realise that the pet frog has run away and that it is necessary for the protagonist in the story to start looking for it immediately. They may have noticed from the pictures that the frog ran away but maybe they thought that the frog did not 'deserve' to live in a house and therefore it was a positive turn of events that the frog had escaped. From my personal experience, Southern African children (and adults) do not seem to appreciate having frogs living together with people in a house; hence the children who participated in the current study struggled to focus on the missing frog, as verified by the examples provided above.

The examples above when taken in conjunction with the overall results from the "Frog, where are you?" story may be explained as affirmation of the significance of cultural familiarity for successful storytelling. Children are likely to recall stories referring to familiar concepts more easily than stories that refer to unfamiliar ones. The "Frog, where are you?" story, as alluded to in the paragraph above, apparently contains a plot that is unfamiliar to Malawians, therefore the children struggled to retell the story in a coherent manner. As a result, the children obtained far lower scores for this story in comparison to those from the 'rocket' story. This result is particularly remarkable as the [re]telling of the latter stories entailed an added cognitive load because they had to be retold from memory while the "Frog, where are you?" story was told 'online' while looking at the wordless picture book (Mayer, 1969).

The relationship between cultural familiarity and storytelling can also be explained in relation to the "setting" information that the children included in their [re]tellings. The results in this study have shown that only a few children mentioned setting in their [re]tellings (only 17% of the children included a setting in their English [re]tellings, whereas only 23% of the participants included a setting in their Chichewa [re]tellings; these results from Tappe and Hara (2013) focus only on the [re]tellings from "The mole and the radio" and "The mole and the rocket"). An example of the "setting" information that the children included is "the mole lived near the river". The setting "near the river" was mentioned in two [re]tellings in English. The equivalent of "near the river" in Chichewa ("*kumbali ya mtsinje*") was mentioned in one [re]telling in Chichewa.

The most popular setting in the case of both the English and Chichewa [re]tellings from “The mole and the radio” was “in the forest” while in the English and Chichewa [re]tellings from “The mole and the rocket” the following settings were popular: “near the lake”, “around the lake” or “at the lake”.

Furthermore, the word “forest” is mentioned 9 times in English [re]tellings and *nkhalango* (“forest”) is mentioned 6 times in Chichewa [re]tellings. Additionally, the word “lake” is mentioned 37 times in English [re]tellings while the word “river” is mentioned 29 times in English [re]tellings. The word *mtsinje* (“river”) is mentioned four times in Chichewa [re]tellings. Furthermore, the word *nyanja* (this word is used when referring to a lake, a sea or an ocean) is mentioned 82 times in Chichewa [re]tellings. What these figures indicate is that the children most often mention names of objects familiar to them, in this case, “lake” and “*mtsinje*” (“river”). Moreover, they mention *mtsinje* when [re]telling “The mole and the rocket” story but “*mtsinje*” is neither featured in the visually presented stimuli nor in the aurally presented versions of “The mole and the rocket”. While the story showed the mole on the beach, the children may have assumed that the mole was near a river because the river is more familiar to these children than a lake, a sea or an ocean. This may explain why they kept referring to the river throughout their [re]tellings, hence the word “river” was mentioned 29 times in English [re]tellings.

These results substantiate the idea that cultural familiarity or expectations played a role when recalling “The mole and the rocket” story. In other words, the children’s schema facilitated the reconstruction process and they ended up recalling objects that were familiar; that is, objects that were part of their schemata. Because the story mentioned that the mole was on the beach, the children expected the mole to be near the river. In other words, they inferred that the mole was near the river, a familiar setting to them. This is in accord with what Anderson and Pearson (1984) discuss concerning the processes involved in the reconstruction of a story. They explain that a person generates inferences about a story based on his/her schema (see Chapter 1, section 1.9.4, on schemata and remembering) and aspects of the story that can be recalled. Because of this, s/he ends up reconstructing a story containing the correct or incorrect details. For instance, in the experiments that Anderson and Pearson conducted participants were observed to have included details that were not part of the given story in their recalls implying that schemata or

expectations played a great role in the reconstruction process. In other words, they included other details in their recalls that were part of their schemata or expectations. Anderson and Pearson therefore concluded that a person's schemata or expectations influence the way details of a story are recalled (see section 1.9.4 in Chapter 1 for more details).

These results can be explained more specifically using the concept of “sharpening”, one of the three patterns of distortion that Bartlett (1932, p. 275) proposes participants apply when recalling a story (see section 1.9.2 in Chapter 1). In sharpening, participants reorder a story and narrate it using terms that are more familiar in their own culture. This is what the children were observed to have done in my study; they used names of objects, such as *mtsinje* (“river”) in [re]tellings in Chichewa and “river” in [re]tellings in English, both of which are familiar to their culture. Thus, in a similar way to Bartlett's findings, the children in my study included names of objects that are more familiar in their [re]tellings to fit their own norms and cultural expectations. In other words, their perceptions based on their expectations were that the mole was near the river but neither the visually presented stimuli nor the aurally presented versions show or mention that the mole was near the river.

This section has discussed the relationship between cultural familiarity and storytelling. It has attempted to clarify why children obtained low scores from the ‘rocket’ and ‘frog’ stories when compared to the scores from the radio story. The focus in the next section is on the role played by knowledge of vocabulary on children's ability to provide certain details in a story. It also focuses on how language proficiency may impact the act of storytelling and in particular how language proficiency enables children to narrate stories that are coherent and cohesive.

5.6 Knowledge of vocabulary, language proficiency and their significance to the act of storytelling

Knowledge of vocabulary and language proficiency definitely play a significant role in storytelling. This section discusses how the children with insufficient vocabulary for storytelling had an impact on their overall storytelling performance. In the first place, the children were unable to express their emotions more when telling a story in English than in Chichewa. Secondly, they were unable to refer to characters in the ‘rocket’ story for a similar reason. Furthermore, this section also discusses how children who are not proficient in a language struggle to produce stories that are detailed, long and well formed containing all the required

elements from “introduction” to “conclusion”. It also discusses how such children may struggle to produce stories that are coherent and cohesive, with a problem-resolution structure.

The results in this study demonstrate that the children were able to express their emotional reactions more easily when telling a story in Chichewa (22 mental state words in the [re]tellings from the film medium, 92 from the aural medium and 73 from the picture book = a total of 187) than in English (53 mental states in the [re]tellings from the film medium, 68 from the aural medium and 57 from the picture book = a total of 178) (see Table 4.28 and Table 4.29 for illustration). As explained in section 5.2, “mental states” represent character’s reactions to “initiating events”, such as emotional responses, thoughts or intentions. The children in this study expressed character’s internal response/reaction in their narratives through the use of internal response adjectives such as “sad”, “happy” and “worried” and verbs relating to cognition such as “think”, “realise” and “notice”. Even though the children were able to express their emotions more easily when narrating stories in Chichewa than in English, the results reveal that there was a low overall recall rate of mental state words. The results reveal that an average of one mental state word was mentioned in each English [re]telling (an average of 1.43, 1.01 and 1.21 mental state words from the film, aural and pictorial media of presentation respectively) and Chichewa [re]telling (an average of 0.65, 1.30 and 1.87 mental state words from the film, aural and pictorial media of presentation respectively). The low recall rate of mental state words is attributed to the fact that mental state words are associated with a ‘canonical’ story grammar and the children in this study were influenced by a Southern African story grammar (see section 4.4.6 in Chapter 4 and section 5.8.2 in this chapter for further details).

It could be argued that more mental state words were used in [re]tellings in Chichewa than in English because the children lacked sufficient vocabulary to express their emotions in English as they were still in the process of acquiring this language. Research provides evidence for the assertion that vocabulary is positively associated with narrative skills (Uccelli & Páez, 2007). According to Uccelli and Páez’s results, the positive correlation between vocabulary knowledge and narrative skills is mainly significant in studies whose participants are successive bilinguals⁹⁵, which suggests that vocabulary and narrative skills could be two sets of skills that influence each

⁹⁵ Successive bilinguals have exposure to the first language (L1) from birth while exposure to the second language (L2) occurs later in childhood or adulthood (McLaughlin, 1995, p. 10).

other positively not only in a second language but in a first language as well. A child who has adequate vocabulary is therefore more likely to excel in storytelling tasks than one who lacks it (see section 2.7.6 in Chapter 2 for more details). Some of the children in my study, especially those from the public school, may not have had the vocabulary to express their emotions in English.

Furthermore, some children may not have had adequate vocabulary to narrate stories ('rocket' and 'frog' stories) that were alien to them. The findings in this study demonstrate that in addition to the 'frog' story being unfamiliar to the children, the 'rocket' story too might not have been familiar to most of the children participating in the study. This is because, as alluded to in section 5.5, the 'rocket' story featured characters that live in the ocean (a crab, angelfish, a sea horse, etc.) and these characters may not have been known to children who live inland and/or do not have access to television, the internet or illustrated books.

As a result, the children ended up using vague references to characters in the story as evident in the following examples from [re]tellings in Chichewa: *chilombo china* (another wild animal) and *chinyama chija* or *nyama ija* (that animal) when referring to the crab; *nsomba zinzake* (other fish) and *tinsomba ting'onoting'ono* (very tiny fish) when failing to name other types of fish that were featured in the rocket story such as five purple fish, jelly fish, etc. Apart from this, some children used English names for characters when narrating a story in Chichewa such as the mole (mentioned 66 times), the crab (mentioned 19 times) and jellyfish (mentioned 7 times). Furthermore, other children used Chichewa names for characters when narrating a story in English, for example, *mfuko* (mole) was mentioned 49 times whereas *nkhanu* (crab) was mentioned 10 times in English [re]tellings.

The children were shown still pictures of the main and supporting characters in my study and they were also told what the characters' names were in case they did not know them, which was the case in the pilot study. However, it remained a challenge for them to use these names during recall. As a result, they used English names during [re]tellings in Chichewa and vice versa as reported in the paragraph above. Such use of names could be attributed to the *lexical-gap hypothesis* (Genesee & Nicoladis, 2007, p. 332). The lexical-gap hypothesis is an attempt to explain why bilingual children use code-mixing. According to this hypothesis, "bilingual children mix words from language X when using language Y because they do not know the

appropriate word in language Y” (Genesee & Nicoladis, 2007, p. 332). Bilingual children therefore tend to use code-mixing to fill lexical gaps because they have not yet mastered the languages that they are acquiring. However, lexical gap-filling is also used by older bilinguals “because lexical knowledge in both languages of the bilingual is seldom equivalent” (Genesee & Nicoladis, 2007, p. 332).

Furthermore, it was difficult for the children to use the names of the characters provided to them by the research assistants or myself because the task of [re]telling a story that was presented to them either visually or aurally placed a substantial cognitive load on the children; they were required both to comprehend the story and memorise its content. Against this background the extra task of getting to know the unfamiliar sea creatures that were featured in the ‘rocket’ story and learning their as yet unfamiliar names, constituted an additional cognitive load and seems to have led to what may be called ‘cognitive overload’⁹⁶. Since the children were not able to memorise the newly introduced story characters and their names they ended up producing stories that lacked major elements, such as parts of the story where the little mole interacts with the sea creatures. Consequently, the [re]tellings of the ‘rocket’ story received low scores as reported in section 5.5. However, for L1 children with a language of teaching and learning that is also an L2, it is common for them to learn the vocabulary while they are carrying out another task. For example, they may learn about a certain topic as well as concepts and vocabulary associated with it.

The relationship between knowledge of vocabulary and storytelling has also been examined in a study that Walma van der Molen and van der Voort (2000a) conducted on children and adults' recall of television and print news. Their results demonstrate that adults who had “large” vocabularies remembered more information than those adults with “small” vocabularies irrespective of the medium of presentation. The vocabulary level, whether large or small, was determined from the results of a multiple-choice test on vocabulary level that the adult participants wrote before taking part in the main study. Participants who demonstrated limited performance in the vocabulary test were said to have “small” vocabularies while those who

⁹⁶ According to Song (2011, p. 48), there are different types of cognitive load: extraneous load, intrinsic load, and germane load. Extraneous load is “determined by instructional design and is influenced by the manner in which the material is presented or by the activities required of the learner” (Song, 2011, pp. 48-49). In this study, children’s performance in story recalls was affected by extraneous load.

performed well were said to have “large” vocabularies (Walma van der Molen & van der Voort, 2000a, p. 151). Similarly, Gutiérrez-Clellen’s (2002, p. 191) study concurs that knowledge of vocabulary and literacy experiences may have an impact on children’s ability to recall and comprehend narrative texts.

Furthermore, there is also a relationship between language proficiency and narration of a story that is complete and well formed. A child who is not proficient in a language struggles to produce a story that is complete and well formed including all its elements from “introduction” to “conclusion”. The results of my study demonstrate that a greater number of children from the public school than the private school struggled to produce complete and well-formed stories in English. Out of the 33 children who narrated very short and/or incomplete stories in English, 27 were from the public school and 6 from the private school. Furthermore, more of the children from the public school did not manage to narrate a story in English at all: Of the 17 children who could not narrate a story in English, 15 were from the public school and 2 from the private school. Additionally, more children from the public school than the private school were not able to narrate a story in Chichewa after listening to the aural story in English. Of the 13 children who could not narrate a story in Chichewa from the aural story in English, 9 were from the public school and 4 were from the private school. These results confirm information gleaned from the parental questionnaire, which indicates that only 3/58 children from Mphungu had the ability to retell stories in English whereas 15/58 had the ability to retell stories in both English and Chichewa. In contrast, the majority of the children (43/69) from Kapita had the ability to use both languages when [re]telling stories while just 6/69 had the ability to retell stories in English.

The results in my study, which indicate a systematic difference between the two school types in terms of the language proficiency in both languages, are consonant with findings presented by Severing and Verhoeven (2001). Their results show that there was a clear link between the measures of text length and text coherence in their participants’ two languages (Papiamento (L1), Dutch (L2)). This implies that children who were able to narrate long, elaborated and coherent stories did so in both L1 and L2. In other words, a child who produced a well-formed story in Papiamento also managed to produce a well-formed story in Dutch. Severing and Verhoeven attributed such results to the fact that children who produced long, elaborated and coherent stories might have had exposure to stories both at home (where L1 is dominant) and at school

(where L2 is dominant) (for further details see the next section which provides more detail on the relationship between storytelling background and socioeconomic background with the development of a story schema).

A child who is not proficient in a language may also struggle to produce a coherent and cohesive story. Hence, there must be a relationship between language proficiency and the ability to narrate stories that are coherent and cohesive. Coherence in a text may be achieved through the use of cohesive devices such as subordinate connections, coordinate connections (also known as conjunctions) and references (see section 1.3 in Chapter 1 for further details). Stories narrated by children from the public school in English did not reflect the use of these cohesive devices (especially subordinate connections) and as a result their stories in English were not coherent. The inability of the children from the public school to use subordinate connections is illustrated in Extract 1 below from the ‘radio’ story (condition 1 (a), [re]telling from film).

Extract 1

The mole was woke up and he was playing with their friends. Then he was walking backwards. Then he seen a radio, and he start pressing some buttons. Then the radio starts singing. Then their friends were not interesting for the sound. Then, they ran away from him. And he were alone, and he was dancing.

In Extract 1 the child is shown only to be able to use the coordinating connections “and” and “then”. In addition the child’s use of “their friends” as a reference to the main character’s own friends is confusing and makes the story incoherent. Most importantly, the extract demonstrates that the child was able to recount very few of the story events and s/he missed the ‘gist’ and the ‘moral’ of the story completely.

Extract 2 below is also taken from the ‘radio story’ (condition 1 (a), [re]telling from film). It is taken from a story narrated by a child from the private school. Extract 2 illustrates that the children from the private school were able to make better use of a variety of cohesive devices than the children from the public school when relating the same events.

Extract 2

After there, he was moving. As he was moving he tripped and fell on the radio. And then he switched and he didn't know what it was, so he was afraid and he picked it up, tried to touch it but he was a bit scared. Then he switched on the radio and some announcements were there. And everyone didn't want to hear about it because it was making noise.

In Extract 2, the child has managed to use a variety of subordinating connections (“as he was moving” and “what it was”) and coordinating connections (“after there”, “and”, “then”, “so”, “but” and “because”). This is different from the [re]telling in Extract 1 where the child linked ideas together using only two coordinating connections (“and” and “then”).

The mean scores that the two groups of children obtained for the “cohesion” element⁹⁷ confirm what was illustrated in the two extracts above. The mean scores obtained by children from the public school for the “cohesion” element are far below the mean scores obtained by children from the private school. The results elicited from the ‘radio’ story (see Table 4.2) for the “cohesion” element demonstrate that there are 5 mean scores out of 6 that are below 2.5 (the average score is 2.5) for the children from the public school, whereas there are just 2 mean scores out of 6 that are below 2.5 for the children from the private school.

The results obtained for the “cohesion” element from the ‘rocket’ story (see Table 4.3), further report 6 mean scores out of 6 below 2.5 for the public school children whereas there was only 1 mean score out of 6 below 2.5 among children from the private school. The children from Mphungu only managed to achieve a mean score that was above 2.5 when recalling the ‘radio’ story in Chichewa in condition 3 (see Table 4.2). However, both groups of children obtained similar scores from the ‘frog’ story (see Table 4.4) for the “cohesion” element (there are 2 mean scores out of 2 that are below 2.5 for the public school children from the and 2 mean scores out of 2 below 2.5 for the private school children).

There is further evidence from literature that corroborates the relationship between language proficiency and the ability to use cohesive devices. Montanari (2004, p. 485) reports that a

⁹⁷ A maximum score of 5 was awarded for the “cohesion” element if a child narrated a story that included, among other things, a combination of coordinate connections and subordinate connections.

child's poverty of linguistic resources in his/her second language prevents him/her from narrating a story that is coherent and cohesive. In particular, she reports on one child in her study who was able to use numerous nominal expressions and make reference to the characters as well as to their actions clearly throughout his [re]tellings in his first language which was in sharp contrast to his use of the nominal expressions and his reference to characters in his second language. Similarly, the results of my study demonstrate that children from the public school were able to narrate stories that contained a variety of cohesive devices (i.e. coordinating as well as subordinating connections) only when narrating stories in Chichewa (see condition 3 in Table 4.2) from the 'radio' story because the mean score is 2.7778, which is above 2.5. When narrating stories in English as shown in Extract 1 above, children from Mphungu were unable to use a variety of coordinating and subordinating connections (Extract 1 above demonstrates that the child was only able to use the coordinating connections "and" and "then").

The relationship between language proficiency and the ability to produce narratives that are coherent, integrated wholes has also been reported in Uchikoshi's (2005) study conducted on Spanish-English children using Mayer's (1969) picture book, "Frog, where are you?" Uchikoshi reports that many children in her study failed to create long and detailed narratives because of a lack of English vocabulary. Consequently, some of them kept quiet or narrated stories in Spanish. On the contrary, children who were proficient in English were able to link sentences in their narratives together by making use of appropriate cohesive ties. The results of my study and other studies reported above therefore suggest that indeed proficiency in a language enables children to narrate stories that are well structured, coordinated and detailed.

The results in my study regarding the relationship between language proficiency and the ability to narrate stories that have a problem-resolution structure, suggest that the children from Mphungu may have performed poorly in the "conflict and resolution" element because they were not proficient in English. The results for the "conflict and resolution" element for the 'radio' story (see Table 4.2) demonstrate that 5 mean scores out of 6 for Mphungu were below 2.5 whereas 3 mean scores out of 6 for Kapita were below 2.5. Furthermore, the results for the "conflict and resolution" element for the 'rocket' story (see Table 4.3) demonstrate that 5 mean scores out of 6 for Mphungu were below 2.5 whereas 2 mean scores out of 6 for Kapita were below 2.5.

For both the ‘radio’ and ‘rocket’ stories, the children from Mphungu only managed to get a mean score that was above 2.5 when narrating stories in Chichewa (i.e. in condition 3). However, there are no discernible differences in the way the children performed in this element (conflict and resolution) when narrating the ‘frog’ story (2 mean scores out of 2 for Mphungu below 2.5, and similarly 2 mean scores out of 2 for Kapita below 2.5; see Table 4.4). As alluded to in section 5.3, the “conflict resolution” element (also known as “outcome”) is one of the most important elements in a story, according to Mandler and Johnson (1977, p. 130). If this element is deleted from or not included in a story, the ‘canonical’ structure is violated. As a result, a story falls short of being well formed according to Mandler’s (1984, p. 18) story grammar rules (i.e. the canonical scoring schema). It is therefore not surprising that the children from Mphungu obtained low mean scores because of their inability to narrate well-formed stories according to the adapted version of Heilmann et al.’s (2010a, 2010b) Narrative Scoring Scheme (NSS), which is in accordance with the canonical scoring schema.

The results described above about the performance of the two groups of children with reference to the “conflicts and resolution” element are further illustrated in Story 1 and Story 2 in Appendix 20. Story 1 was narrated by a child from Mphungu while Story 2 was narrated by a child from Kapita⁹⁸.

In Story 1, the child mentions that the fisherman was trying to shoot at the mole (conflict) but the mole “flew back” in his rocket (resolution). The child also mentions that the mole did not know how to swim (conflict) but she does not mention that the mole was unable to get pieces of the rocket from the sea himself because of this. Additionally, the child mentions the toy crocodile but she does not say that the mole and the crab were initially afraid of it.

The child from Kapita who narrates the example [re]telling of story 2, includes the following conflicts and resolutions in his story: The rocket crashed and its parts were broken and they were dropped in the water (conflict), the mole makes friends with a crab who helps him find the parts of the rocket (resolution), the mole and the crab saw a bottle which they thought was a part of the

⁹⁸ These stories were selected randomly for the purpose of demonstrating the differences between stories narrated by children from Mphungu and stories narrated by children from Kapita. When stories are selected randomly, a researcher is assured of representativeness (Tashakkori & Teddlie, 2003, p. 713).

rocket (conflict), they (the mole and the crab) saw a toy crocodile while looking for the parts of the rocket (conflict), they collected the other parts of the rocket (resolution), the fisherman collected a knife and threw it into the air (i.e. aiming it at the mole) conflict, the fisherman was too late because the mole was already in mid-air and he got back home (resolution). Unlike the child who is [re]telling story 1, there are only a few conflicts and resolutions that the child [re]telling Story 2 does not mention. For instance, s/he does not mention that the mole could not get the parts of the rocket himself because he did not know how to swim. S/he also does not mention that the mole and the crab were initially afraid of the toy crocodile.

The above confirms what has been documented in literature concerning the correlation between language proficiency and the ability to narrate stories that have a problem-resolution structure. For instance, Uchikoshi's (2005, p. 473) findings during the final data collection demonstrate that narratives by children who were more proficient in English than others contained more events and more advanced story structures; i.e. at Time III⁹⁹. Uchikoshi reports that children who were unable to provide a resolution and an ending at Time I, were able to do so at Time III (see section 2.5 in Chapter 2 for more details). Uchikoshi's findings also provide support for the correlation between a child's storytelling background and the development of her or his story schema (see section 5.7 for more details).

In contrast to the findings of my study, it is interesting to note that there are some bilingual children who are able to produce stories that are similar in two languages. The results of Gutiérrez-Clellen's (2002, p. 189) study indicate that children did not struggle to apply grammatical rules in their recalls in either language (Spanish and English). Furthermore, the way children used grammatical sentences in their recall did not seem to differ at all in either of the two languages. Gutiérrez-Clellen (2002, p. 189) reports that "[e]ven children who appeared limited in one language [...] were capable of producing adequate grammar, appropriate narrative structure, and overall narrative quality in that language when their spontaneous narratives were analyzed." Even though languages that bilinguals acquire may not be on par, it is possible for

⁹⁹ As explained in Chapter 2, children in Uchikoshi's (2005, p. 468) study were asked to narrate a story at different time periods: at Time I in October before watching any episode, at Time II in February after watching 27 episodes and at Time III in May after they had watched a total of 54 episodes (see Chapter 2, section 2.7.6 for further details).

children to produce equivalent narratives in both languages as demonstrated in Gutiérrez-Clellen's (2002, p. 189) study.

The focus in this section has been on the significance of knowledge of vocabulary and language proficiency to storytelling. A child who has sufficient vocabulary will find it easier to relate events in a story and include the required details. S/he may also be able to refer to characters in the story by name and describe them appropriately in relation to the story. Furthermore, a child who is proficient in a language is more likely to narrate a detailed, long and well-formed story. S/he will succeed more often in narrating a story that is coherent and cohesive with a problem-resolution structure than a child who is less proficient in the chosen language.

5.7 The relationship between storytelling background and socioeconomic background with the development of a story schema

The focus in this section is on how storytelling background and socioeconomic background may impact on the development of a story schema. In particular, this section relates the results to the children's storytelling and socioeconomic background. The emphasis in this section is therefore on the significance of regular exposure to storytelling on the development of narrative skills.

The results of my study (see Table 4.2, Table 4.3 and Table 4.4 in Chapter 4) illustrate that the children from Kapita (private school) obtained higher mean scores than the children from Mphungu (public school). In addition, the children from Kapita obtained higher mean scores for English [re]tellings than Chichewa [re]tellings, while the children from Mphungu obtained higher mean scores for Chichewa [re]tellings than English [re]tellings. The results further reveal that there is a difference between the two schools with regard to the scores that the children obtained for their English [re]tellings. The mean score for English [re]tellings obtained by the children from the private school (Kapita) was 2.5714 while the mean score for English [re]tellings produced by the children from the public school (Mphungu) was 1.4221. The results indicate that there was a significant difference between the scores of the two groups of children for their English [re]tellings; a *p*-value that was obtained from the analysis was 0.00 which is less than 0.05. These results support the hypothesis that children attending a private school would perform better than children from a public school when [re]telling stories in English from film and the aural version of the film due to the *academic language advantage* (Silburn, Nutton, McKenzie & Landrigan, 2011, p. 47).

Although the children from Mphungu have higher mean scores for Chichewa [re]tellings than English [re]tellings, their mean scores for Chichewa [re]tellings are also below the mean scores for Chichewa [re]tellings by children from the private school (see Figure 4.6 in Chapter 4). The [re]tellings produced by the public school children (Mphungu) returned an overall mean score of 2.1451 while the [re]tellings produced by children attending the private school (Kapita) returned an overall mean score of 2.3357. The results demonstrate that there was a significant difference between the scores because the *p*-value that was obtained from the analysis was 0.0082 which is less than 0.05. These results undermine the hypothesis that children attending a public school would perform better than children attending a private school due to a *mother tongue advantage* when [re]telling stories in Chichewa from film and an aural version of the film.

The results further reveal that most of the mean scores that the children from Mphungu obtained were below 2.5 (the average score is 2.5). In particular, the results in Table 4.2 from the ‘radio’ story reveal that 33 mean scores out of 42 for Mphungu were below 2.5 whereas 18 mean scores out of 42 for Kapita were below 2.5. The results in Table 4.3 from the ‘rocket’ story also show that 36 mean scores out of 42 for Mphungu were below 2.5 whereas 15 mean scores out of 42 for Kapita were below 2.5. Furthermore, the results in Table 4.4 from the ‘frog’ story reveal that 13 mean scores out of 14 for Mphungu were below 2.5 whereas 9 mean scores out of 14 for Kapita were below 2.5.

It may be said that the children from Kapita obtained such results because of regular exposure to stories in the film medium and regular narration of stories in English. Such results were more likely for children from Kapita private school because they came from a more comfortable and stable socio-economic background than those who attended the public school. This means that children from Kapita had more opportunities to watch television and recount events or narrate stories in English from television with their parents at home or their teachers at school than children from Mphungu.

The results obtained by the two groups of children and their explanation in the previous paragraph are supported by data obtained from the parental questionnaire. The results from the questionnaire indicate that the majority of children (38/69) from the private school (Kapita) use both English and Chichewa when narrating stories at home; in consequence the parents indicate that the majority of their children (43/69) have the ability to use both languages when [re]telling

stories (see Table 4.10 in Chapter 4). However, results from the parental questionnaire for the children from the public school (Mphungu) reveal a strikingly different language background. According to the questionnaire responses, there were only a few children (18/58) from Mphungu who use both English and Chichewa during storytelling at home. Furthermore, there was an even lower number of children (15/58) from Mphungu who had the ability to [re]tell stories in both languages. The results of the questionnaire also affirm that the majority of the children from Mphungu (36/58) use Chichewa when narrating stories at home and have the ability to [re]tell stories in Chichewa (see Table 4.11 in Chapter 4).

These results are consistent with findings from Linebarger and Piotrowski's (2009) study, which demonstrate that "repeated exposure to programs that both model the prototypical story format (i.e. traditional narratives) and explicitly identify components of the story grammar (i.e. embedded narratives) [...] facilitate young children's developing story schema" (Linebarger & Piotrowski, 2009, p. 61). Also, children who were subjected to non-viewing and expository viewing¹⁰⁰ for 40 days demonstrated limited performance when compared to children who were exposed to embedded narrative¹⁰¹ and traditional narrative¹⁰² viewing for 40 days. These results confirmed their hypotheses that story knowledge and exposure to repeated televised narratives enhance the development of story schemas which "[...] contribute to greater narrative involvement that, in turn, contributes to greater efficiency in storing and interpreting narrative content" (Linebarger & Piotrowski, 2009, pp. 61-62).

Because Linebarger and Piotrowski's (2009, p. 64) study targeted children from ethnic minority subgroups who are socio-economically disadvantaged and at risk in terms of literacy difficulties, it has provided some comprehensive insight about the relationship between storytelling background and socioeconomic background in the development of a story schema. Their results suggest that when such children are exposed to well-developed educational programmes, their

¹⁰⁰ According to Linebarger and Piotrowski (2009, p. 53), the purpose in expository viewing is to explain, describe or provide the audience with information about a particular topic.

¹⁰¹ An embedded narrative is a narrative that incorporates a story within a story (Linebarger & Piotrowski, 2009, p. 53).

¹⁰² In a traditional viewing narrative, "[...] the story follows a simple linear story with a problem and a solution that unfolds over the episode" (Linebarger & Piotrowski, 2009, p. 53).

story knowledge and narrative skills are enhanced. According to Linebarger and Piotrowski (2009, p. 63), “[...] narrative skills are a critical component to the development of literacy and that these skills are both developed and enhanced through exposure to well-structured stories (in multiple media formats).” Furthermore, the results of Linebarger and Piotrowski’s (2009, p. 64) study provide important information about how television may assist the enhancement of a child’s literacy skills. For instance, their results demonstrate significant literacy improvement among children who watch televised traditional and embedded narratives on a regular basis, highlighting the impact that well-structured stories (in multiple media formats) may have on the development of young children’s narrative skills. However, their study did not include background information relating to children’s home literacy behaviours and television habits from all parents. As a result, they could not include these data in their analyses. When such background information is not available from parents, it is difficult to know how home literacy behaviours and television habits impact children’s knowledge of narrative text structure. Background information should therefore not be overlooked in studies of this nature because it is an important step in understanding children’s story grammar and other narrative skills.

According to Linebarger and Piotrowski (2009, p. 50), children who watch well-structured stories (in multiple media formats) on a regular basis are exposed to information through different presentation genres (narrative, expository, etc.). It is worthwhile to note that “[e]ach presentation genre (i.e. narrative, expository) with its accompanying framework and specific content focus is associated with different sets of skills” (Linebarger & Piotrowski, 2009, p. 50). The results obtained from my study indicate that children from Kapita may have been regularly exposed to narrative genres of presentation. Information from the parental questionnaire revealed that 62 out of 69 children from Kapita listen to storytelling at home while 61 out of 69 have knowledge of traditional practices such as folktales and the reading of Bible stories. As a result, they may have gained knowledge/understanding about how narratives are structured, how a coherent story is structured, etc. This may have resulted in their relatively good performance on storytelling tasks.

The results of my study attest to the fact that the children from Mphungu demonstrated weaker performance in their [re]tellings than the children from Kapita. However, this does not imply that they were not regularly exposed to stories because information from the parental questionnaire

indicates that the children had storytelling background in listening to and telling stories. Responses to the parental questionnaire indicate that 39/58 children could retell stories in Chichewa, 3/58 children could retell a story in English whereas 15/58 could retell stories in both English and Chichewa. Information from the parental questionnaire also indicates that 57 out of 58 children from Mphungu listen to storytelling at home. The weaker performance displayed by the children from Mphungu could be attributed to the use of a Western scoring schema when children's [re]tellings conform to a Southern African story grammar. As a result, the [re]tellings that were produced by children from Mphungu appear not to have included information pertaining to the seven elements of a story outlined in the adapted version of Heilmann et al.'s (2010a, 2010b) Narrative Scoring Scheme (i.e. the Western scoring schema). Significantly, most of the scores obtained from these elements by the children from Mphungu were less than 2.5 (2.5 is the average score). On the other hand, the children from Kapita obtained better scores for these elements. Unlike the children from Mphungu, it is possible that the children from Kapita may have acquired both story grammars (Western and Southern African story grammars). The Western story grammar may have been acquired through their regular exposure to television. As explained above, children from Kapita had more opportunities to watch television than children from Mphungu. Extract 1, Extract 2 and the stories in Appendix 20 have further illustrated that the children from Kapita were able to narrate stories that contain more cohesive ties, conflicts and resolutions than the stories narrated by the children from Mphungu according to the Western scoring schema used in this study (see section 5.6 for more details).

The proposed correlation between exposure to stories and performance in story recalls and comprehension tasks is further supported by numerous other pieces of research (e.g. Cruz de Quirós, Lara-Alecio, Tong & Irby, 2012; Fiestas & Peña, 2004; Patterson, 2002; Scheele, Leseman & Mayo, 2010; Severing & Verhoeven, 2001). For instance, Cruz de Quirós et al.'s (2012) study demonstrates in particular how regular exposure to storytelling may enhance storytelling skills regardless of the languages involved. The participants in their study who had had regular exposure to storytelling outperformed children in the control group when narrating stories in both English and Spanish (see chapter 2, section 2.3 for more details). These results are consonant with Bartlett's (1932) suggestion that constant exposure to a certain phenomenon results in a generic cognitive representation of the phenomenon. Research indicates that readers or listeners that narrate well structured stories for which they have an appropriate schema will

not do well in narrating stories for which they lack a schema (Kintsch & Greene, 1978, p. 1). The story schema enhances the comprehension process in the sense that the listener is able to make predictions about what he will listen to next (Mandler & Johnson, 1977; O'Malley & Chamot, 1990; Stein & Glenn, 1979). According to O'Malley and Chamot, the listener is also able to predict conclusions and to infer meanings of portions of text that have not been made explicit. Above all, knowledge of story schema helps one to generate novel stories orally or in writing (Duchan, 2004; Chasen, 1989; Sisco, 1992; Smith, 1986). Hence the children who attend the private school (Kapita) may have performed relatively well in their story production in both L1 and L2 because overall they may have been exposed to more storytelling experiences than the children attending the public school. The children from the private school may have had more exposure to Chichewa stories at home where Chichewa (L1) is dominant and to English stories at school where English (L2) is dominant. Regarding storytelling experiences at home, the following information was obtained from the parental questionnaire: regarding the children from Kapita, 15/69 indicated that Chichewa is used in storytelling at home, 9/69 indicated that English is used while 38/69 indicated that both languages are used in storytelling at home. Unlike children from Kapita, the children from Mphungu mainly use Chichewa in storytelling at home. In particular, information from the parental questionnaire indicates that 36/58 use Chichewa, 2/58 use English and 18/58 use both English and Chichewa, in storytelling at home.

The assumption made in the previous paragraph regarding differences in exposure to storytelling is warranted as the majority of the pupils attending private schools come from more affluent homes than the majority of children attending a public school. A more affluent home is more likely to be a home with a stable family background and less demand on the children to carry out house chores after school (Slatalla, 2001, p. 75). According to Hecht, Burgess, Torgesen, Wagner and Rashotte (2000, p. 99), there is evidence that children from more affluent socio-economic status (SES) homes obtain higher scores on "measures of reading attainment at school entry" than those from lower SES backgrounds. Moreover, more affluent homes are more likely to be headed by a parent or parents with higher education who may have the time and the leisure to engage in story telling sessions with their children. They may also have an insight into the necessity of narrative skills development. Such parents are also likely to be able to afford books and other reading materials. However, not all parents from affluent homes engage in storytelling sessions with their children. It is possible for an affluent home to be headed by a parent or

parents who do not have time to read their children stories. Burgess, Hecht and Lonigan (2002, p. 413) refer to such an environment as a 'limiting environment'. The concept of a limiting environment, according to Burgess et al. (2002, p. 413), "assumes that a parent's ability and disposition to provide literacy opportunities to children are determined by the resources at their disposal." The resources include, among other things, parental characteristics and attitudes towards education (Burgess et al., 2002, p. 413).

Furthermore, parents in more affluent homes are more likely to be able to assist children who already read on their own (Linebarger & Piotrowski, 2009, p. 49). These parents may assist their children by asking them questions (scaffolding via questions) in order to discover whether or not their children have understood what they are reading. When parents are responsive and involved in this way, they contribute to the development of their children's narrative skills (Peterson, Jesso & McCabe, 1999). Additionally, when children see their parents interested in what they are reading, they are motivated to continue the habit of reading books. Apart from scaffolding via questions, parents may also assist their children through 'joint book-reading' (e.g. reading a book out loud together). In doing so, a parent and a child may take turns when reading a story so that the child may learn certain skills associated with reading (for instance, how to pronounce words, when to make use of pauses, etc.).

According to McCabe and Peterson (1991), children's narrative development is further shaped by the conversational exchanges that parents have with their children during book reading. In the same vein, Linebarger and Piotrowski (2009, p. 50) report that early socialisation skills (for instance, storytelling with children at home, scaffolding via questions, 'joint book-reading', etc.) and repeated experiences with narrative-based storybooks or television programmes play a critical role in the development of reading or listening comprehension skills. It is likely that children from the private school may have benefitted from early socialisation skills and repeated exposure to narrative-based storybooks or television programmes. As much as the children from the private school may have benefitted from well-structured stories (in multiple media formats), it could still be argued that if such stories were primarily presented via television it would negatively interfere with a Southern African story schema. In consequence children who attend the private school may have been more 'assimilated' to Western culture than children from the public school.

The focus in this section was on the relationship between storytelling background and socioeconomic background in the development of a story schema. It has been pointed out in this section that early socialisation skills play a role in the development of narrative skills. Additionally, parents who are responsive also contribute to children's acquisition of a story schema. However, children who are socioeconomically disadvantaged may not benefit from early socialisation skills to the same extent as children who are socioeconomically advantaged. This is because socioeconomically disadvantaged children may not have access to books and television as socioeconomically advantaged children do. Children who read books and view well-structured stories (in multiple media formats) on a regular basis gain skills that are essential to the development of their narrative skills.

5.8 Children's [re]tellings in relation to the canonical narrative text structure

This section discusses findings in relation to the third question of this study: Do the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning conform to the Narrative Scoring Scheme (NSS), in other words, do they conform to the canonical scoring schemas (because the NSS was developed from the canonical scoring schemas)? Firstly, in section 5.8.1, the focus is on the discussion of story elements that are not specified in the NSS but are dominant in the children's [re]tellings. Then, in section 5.8.2, the discussion focuses on why children in my study demonstrated limited performance in elements such as "setting" and "mental states" that predominantly feature in the canonical scoring schemas. Finally, section 5.8.3 discusses the questionable "universality" of the canonical narrative text structure.

5.8.1 The influence of elements from Southern African folktales

This section discusses how children's [re]tellings were influenced by elements from Southern African folktales. In particular, the discussion focuses on how the children's [re]tellings were influenced by elements such as "repetition" (section 5.8.1.1), "opening formulae" (section 5.8.1.2), "closing formulae" (section 5.8.1.3) and "dialogues" (section 5.8.1.4) in their [re]tellings in English and Chichewa.

5.8.1.1 Repetition

The results demonstrate that the children's [re]tellings were influenced by elements common to Southern African folktales such as repetition. The children used repetition at different levels

(word, phrase and clause or sentence levels) in both their English and Chichewa [re]tellings. The results show that even though both the visually and aurally presented narratives contained repetitions, the repetitions that the children used were not influenced by the repetitions in the stimulus materials. The children's [re]tellings seem rather to have been influenced by elements intrinsic to folktales because such repetitions are reported to be present in folk narratives from all over the world (e.g. see Tappe & Hara, 2013, p. 311).

Repetition is a stylistic device that narrators use to serve different purposes. In agreement, Chimombo (1988, p. 114) explains that repetitions in narratives may serve different functions, such as intensifying an action or musical rhythmical features, showing the passage of time and/or enhancing reception and retention. In accordance with this suggestion some of the repetitions that the children in the current study used seem to *intensify* different actions such as the action of dancing and listening, the movement of a ball down a hill, the mole and the crab's laughter, the boy's calling for his frog during his search in the "Frog, where are you?" story and finally the dog's sniffing while searching for the missing frog (refer to Table 4.19, Table 4.20 and Table 4.21 to see examples of these repetitions).

In addition, the children used some of the repetitions to denote that certain actions were happening *continuously* such as "he jumped on the crocodile, jumped on the crocodile", "move on the water surface ... move on the water surface", "*akumverabe, akumverabe*" ("he was still listening, he was still listening") and "*akulira, akulira, akulira*" ("while crying, while crying, while crying").

Repetitions that emphasise an on-going event or action and those that intensify event descriptions help listeners to remember descriptions of characters, places and events. These repetitions also assist listeners to "[...] remember clearly what has gone before, what is happening, and what is going to happen" (Chimombo, 1988, p. 114). Repetitions in stories, especially repetitions at clausal or sentence level, enhance the listener's memory because it is not easy to remember detailed descriptions when only the spoken medium is used (Chimombo, 1988, p. 114).

5.8.1.2 Opening formulae

It was determined from the results of the current investigation that the children inserted opening formulae when [re]telling stories in both English and Chichewa though neither the visually nor aurally presented stimuli contained such opening formulae. The two film clips and the picture book did not contain any verbal content and there were no opening formulae inserted in the aurally presented stimuli in either English or Chichewa. The [re]tellings in English and Chichewa contained opening formulae such as “once upon a time”, “long time ago”, “one day” and “there was (once)” (see Table 4.22 and Table 4.23). Even though these opening formulae also exist in Western folktales and fairytales, Chimombo (1988, p. 87) explains that the Chichewa forms *padangotelo* or *padangokhala* (“once upon a time”), *tsiku lina* (“one day”), *kalekale kunali* (sometimes *kalekale* or *kudali* or *kunali* or *panali* or *padali*) (“a long time ago there was...” or “there was (once)”) are the most common opening formulae in folktales narrated in Chichewa.

“Once upon a time” (*padangokhala*), “long time ago” (*kalekale*) and “one day” (*tsiku lina*) were more often used in children’s [re]tellings in English than in Chichewa. The rates of occurrence for “once upon a time” in [re]tellings was as follows: in English, 10 occurrences in “The mole and the radio” [re]tellings, 5 in “The mole and the rocket” and 14 in “Frog, where are you?”. The rate of occurrence for “long time ago” in [re]tellings was as follows: 2 occurrences in “The mole and the radio”, 0 in “The mole and the rocket” and 1 in “Frog, where are you?” while the rate of occurrence for “one day” was as follows: 7 in “The mole and the radio”, 7 in “The mole and the rocket” and 4 in “Frog, where are you?”. The rate of occurrence for “*Padangokhala*” (“once upon a time”) in [re]tellings in Chichewa was as follows: 1 in “The mole and the radio”, 0 in “The mole and the rocket” and 3 in “Frog, where are you?” while the rate of occurrence for *kalekale* (“long time ago”) and “*tsiku lina*” (“one day”) was the same in [re]tellings in Chichewa: 2 in “The mole and the radio”, 2 in “The mole and the rocket” and 2 in “Frog, where are you?” (See tabulation of these statistics in Table 4.22 and Table 4.23).

As alluded to in Chapter 4, section 4.4.2, the children from Kapita primary school used more opening formulae in English [re]tellings than the children from Mphungu primary school. For instance, 26/29 occurrences of the opening formula “once upon a time” in the [re]tellings in English were inserted by the children from Kapita primary school. This is due to the fact that the

children from Kapita have more storytelling experience in English than in Chichewa. These results are supported by information from the parental questionnaire which indicates that there are more children from Kapita (9/69) who use English in storytelling at home than children from Mphungu (2/58). Information from the parental questionnaire further reveals that there are more children from Kapita (38/69) who use both languages in storytelling at home than children from Mphungu (18/58).

The results reveal that the rate of occurrence was higher for the opening formulae “there was (once)” and the Chichewa equivalent “*panali/padali/kunali/kudali*” compared to the other opening formulae described above. However, “*panali*” was used more often in Chichewa [re]tellings (10 occurrences in the [re]tellings from “The mole and the radio”, 27 from “The mole and the rocket” and 21 from “Frog, where are you?”) than its equivalent “there was (once)” in English [re]tellings (18 occurrences in the [re]tellings from “The mole and the radio”, 16 from “The mole and the rocket” and 20 from “Frog, where are you?”). “*Panali*” is the opening formula to the story, “The hare and the well” (a popular trickster tale), that Chimombo (1988, pp. 96-97) uses to illustrate analyses of oral transcripts. If trickster tales or folktales in general use this opening formula, Malawian children are in turn influenced by such styles when [re]telling stories.

Apart from using the opening formulae described above, some children also included the title of the story at the beginning (e.g. “the story was about the mole and the radio ...”). The rate of occurrence of such beginnings in [re]tellings in English was as follows: 18 in [re]tellings from “The mole and the radio”, 7 from “The mole and the rocket” and 2 from “Frog, where are you?”. Similarly, the children used the title of the story at the beginning in their [re]tellings in Chichewa with the following frequency: 11 occurrences in the [re]tellings from “The mole and the radio”, 3 from “The mole and the rocket” and 1 from “Frog, where are you?”. Additionally, some children introduced their stories by mentioning the name of the main character (e.g. “the story was about the little mole...”) in their [re]tellings in English: 3 occurrences in the [re]tellings from “The mole and the radio”, 5 from “The mole and the rocket” and 2 from “Frog, where are you?”. The children also mentioned the name of the main character in their stories narrated in Chichewa with the following regularity: 5 occurrences in the [re]tellings from “The mole and the radio”, 0 from “The mole and the rocket” and 4 from “Frog, where are you?”.

The use of the title of the story too demonstrates the influence of elements derived from Southern African folktales. According to Chimombo (1988, p. 85), a narrator signals that he is about to tell a story through the use of a riddle, a song or a call that emphasises the importance of narratives (Chimombo, 1988, p. 85). When the narrator uses a song to mark the opening of the narrative, it acts as a title to the story. This may guide the audience as to what the story will be about. In a similar way, the children in this study began their [re]tellings with titles to alert the listener about what they were going to narrate.

The use of the opening formulae *padangotelo* or *padangokhala* (“once upon a time”), *tsiku lina* (“one day”), *kalekale* (“a long time ago”), *kudali* or *kunali* or *panali* or *padali* (“there was (once)”) and titles, as described above provides evidence that the children’s [re]tellings were influenced by opening formulae from Southern African narratives. It is interesting to note that this influence led one child to include the response *tilitonse* (“we are together”) in her narration, which is supposed to be a response from the audience in a live performance.

5.8.1.3 Closing formulae

From the results of this study it was evident that some of the children included closing formulae when [re]telling stories in English and/or Chichewa. The closing formulae were not imitated from the visually presented stimuli (the two film clips or the picture book) because they did not contain any linguistic information. However, the aurally presented stimuli in both English and Chichewa contained closing formulae. The [re]tellings appear to provide evidence that the children were influenced by the closing formulae provided in the aurally presented stimuli. There are 22 occurrences in English [re]tellings (11 occurrences in the [re]tellings from “The mole and the radio”, 10 from “The mole and the rocket” and 1 from “Frog, where are you?”) in which children used a similar closing formula to that provided in the aural stimulus materials while there are 14 occurrences in Chichewa [re]tellings (8 occurrences in the [re]tellings from “The mole and the radio”, 4 from “The mole and the rocket” and 2 from “Frog, where are you?”) in which the children used a similar closing formula to the one contained in the aural stimulus materials. However, as explained previously (see section 5.4), the children did not simply imitate the closing formulae which were presented to them, they were actually narrating their stories according to their own schemata that is, Southern African story schemata. In support of this interpretation the children’s [re]tellings contained other closing formulae that were not present in

the aurally presented stimuli such as “I’m finished” or “finish” or other similar statements. There are 8 occurrences of “I’m finished” or “finish” in English [re]tellings (5 in the [re]tellings from “The mole and the radio” and 3 from “The mole and the rocket”), and 4 occurrences of “*Ndamaliza*” (“I have finished”) in Chichewa [re]tellings (2 in the [re]tellings from “The mole and the radio” and 2 from “The mole and the rocket”). “I’m finished” or “finish” is similar to a closing formula used by the Fipa people from Tanzania¹⁰³, *icilaayi cane caasila* (“my story is finished”¹⁰⁴) (Willis, 1978, p. 27).

Other closing formulae that children used in their [re]tellings in English and Chichewa included “that’s all” (*basi*) and “that’s what I have heard” (*ndi zomwe ndinamvapo*). There were 16 occurrences in English [re]tellings of “that’s all” or “it’s all” (12 in the [re]tellings from “The mole and the radio” and 4 from “The mole and the rocket”) whereas there were 15 occurrences of *basi* in Chichewa [re]tellings (7 in the [re]tellings from “The mole and the radio”, 6 from “The mole and the rocket” and 2 from “Frog, where are you?”. There was only one occurrence of “that’s what I have heard” in an English [re]telling (i.e. in “The mole and the radio” [re]telling) and 4 occurrences of “*ndi zomwe ndinamvapo*” (that’s what I heard) in Chichewa [re]tellings (2 in the [re]tellings from “The mole and the radio” and 2 from “The mole and the rocket”). According to Chimombo (1988, p. 92), “*basi*” (“that’s all”) and other similar versions are some of the most popular closing formulae in Chichewa folktales. The folktale (“The hare and the well”) that Chimombo (1988, pp. 110-111) uses in his book to illustrate analyses of oral transcripts ends with the statement “*basi mpamene inathera*” (“this is where the story ended”). This indicates that well established closing formulae from Southern African folktales were used preferentially by the children in this study. It is interesting to note that some children in this study regarded the stories that they [re]told as “*nthano*” (“folktale”) as illustrated by the following closing formulae that they inserted: “*ndi pomwe inathera nthano pomwe ndikukumbikira ine*” (“this is where the folktale ended from what I can remember”) and

¹⁰³ Tanzania is one of Malawi’s neighbouring countries. It is possible for Malawians to have learnt storytelling styles and elements from their neighbours. Besides this, there are many Tanzanians who do businesses in Malawi and/or have settled there.

¹⁰⁴ There are several similarities in the way Africans narrate their stories. For instance, Tappe and Hara (2013, p. 310) report similarities in terms of the use of “chants, formulaic phrases” during narrative performances in communities in Malawi as well as in some communities in other parts of Southern Africa. Tappe and Hara (2013, p. 312) also report that there are similarities in terms of the use of opening formulae in most Southern African folk narratives.

“*kenakono basi pothera panthano mpamenepa*”, (“then this is where the folktale ends”) and “*basi nthano inathera pomwepo*” (“this is where the folktale ended”).

Some children used three other closing formulae: “that’s how I understood it” and “the other part I don’t remember” or “I have forgotten the rest” in their [re]tellings in English. However, there were very few occurrences (1 occurrence of “that’s how I understood it” and 4 of “the other part I don’t remember” or “I have forgotten the rest”) of these closing formulae in the [re]tellings in English. These two closing formulae were inserted in “The mole and rocket” [re]tellings only. Similarly, the children inserted *ndi zomwe ndikukumbukira* (“that’s what I can remember”) and *kwinako ndayiwala* (“I have forgotten the rest”) in their [re]tellings in Chichewa. However, as in the [re]tellings in English, there were few occurrences of these closing formulae in the [re]tellings in Chichewa (1 occurrence of *ndi zomwe ndikukumbukira* in the [re]tellings from “The mole and the radio” and 2 of *ndi zomwe ndikukumbukira* in the [re]tellings from “The mole and the rocket”; 4 occurrences of *kwinako ndayiwala* in the [re]tellings from the latter story). The children used these closing formulae to signal the ending of their [re]tellings. According to Tappe and Hara (2013, p. 312), most narratives end with a closing formula because of the belief that once you have opened a proverbial door to a fantasy world you are expected to close it.

5.8.1.4 Dialogues

Regarding the use of dialogues in the [re]tellings, the children included dialogues in their [re]tellings in both Chichewa and English even though the aural stimulus materials did not contain any dialogue. Dialogues are featured prominently in oral narrative performance. Moreover, Makgamatha (1991) and Chimombo (1988) confirm the plentiful use of dialogues in Northern Sotho and Malawian folktales respectively. Hence the children’s knowledge of dialogues from folktales may have influenced their use of this stylistic device. The children retold stories that portrayed the protagonist conversing with supporting characters and supporting characters conversing with fellow supporting characters. In most cases, the protagonist was portrayed as interacting with supporting characters by means of a question and answer technique as depicted in example 1 below. Supporting characters were also portrayed interacting with fellow supporting characters in the same manner, as shown in example 2 below.

1. “And he ask, ‘what are you doing in this bottle?’ And angelfish angel fish he answer him, ‘I’m bathing’ ... And mole he said, ‘we can’t to be with you, because we are playing in

water’... And fisherman he say, ‘why, you can’t be with me?’ (the mole said) ‘I told you first, we can’t play with you’”.

2. “The butterfly said, ‘let’s go and swim together’ And she goes to, take her friends and - and the angelfish say, ‘I don’t like to swim’”.

The dialogues that the children used in their [re]tellings appeared to serve two principal functions, that is, plot and character development; these functions are similar to those defined by Makgamatha (1991, p. 126). The use of dialogues in the [re]tellings enhanced plot development in the sense that children were able to present the protagonist’s plan(s) through these dialogues, as seen in example 3 below (see other examples in Table 4.26 in Chapter 4) where the mole expresses his/her plan to try to find the missing pieces of the rocket.

3. “The mole said, ‘we should find the pieces of the rocket’ ... the mole said, ‘can you see that piece, can you see that piece of the rocket?’ ... the crab then said, ‘one piece of, a piece of ... a piece of the top rocket is missing’”.

Dialogues also enhanced character development in the sense that traits or behaviour of either the protagonist or supporting characters were identified through such dialogues. For instance, in example 4 below, the negative responses to the invitation from the supporting characters might demonstrate that the supporting characters did not like the protagonist’s behaviour.

4. “*Anamfunsa anafunsa chibee kuti ‘bwerani mudzamvere’, chinakana. Anafunsa timafrog ‘bwerani mudzamvere’, tinakana. Anafunsa mbalame, ‘bwerani mudzamvere’, tinakana. Anafunsanso kalulu, ‘bwerani mudzamvere’, anakana*”. (“He asked the bee, ‘come and listen’, he refused. He asked the frogs, ‘come and listen,’ they refused. He asked the rabbit, ‘come and listen’, he refused”).

Additionally, the dialogue in example 4 may also show how it serves to enhance plot development. For instance, the consequence of these animals refusal to come and listen to the radio, was that the mole thought of another plan of reaching out to his friends. He climbed on top of the radio to see the rabbit and better wave at his friends. Unfortunately he stepped on the left knob, and the radio started making sharp, funny noises. The dialogue that tells of the animals’ refusal therefore enhanced plot development by introducing the listener to the consequences in

the plot. The functions that the dialogues serve in the children's [re]tellings seem to be in accord with the two functions of dialogue (i.e. plot and character development) provided by Makgamatha (1991, p. 126). Apart from these functions, the use of dialogues is regarded as a global narrative strategy to make stories interesting and entertaining, as explained by Tappe and Hara (2013, p. 313) in the following quotation:

[d]ialogues contribute to the performative nature of storytelling in that the narrator can enact different characters and lend them different voices; this is a globally used narrative strategy that adds interest to the narrative. Hence, the dialogue is a stylistic means of adding considerable amounts of entertainment and variation to an orally presented narrative which would otherwise be a lengthy monologue.

Dialogues make stories interesting and entertaining because they are accompanied by non-verbal features such as gestures, facial expressions and voice modulation of the storyteller. The way the words are spoken (i.e. the tone of voice) and the accompanying gestures enhance the richness of this stylistic device (Makgamatha, 1991, p. 128).

5.8.2 Children's limited performance in elements established by the canonical scoring schemas

This section discusses why children demonstrated weaker performance in elements such as "setting"¹⁰⁵ and "mental states" that predominantly feature in the canonical scoring schemas. The main argument in this section is that if the children (whose language of teaching and learning is English) performed poorly with respect to story elements associated with the canonical story schema, then the [re]tellings by children do not conform to the adapted version of Heilmann et al.'s (2010a, 2010b) Narrative Scoring Scheme (that is, the canonical scoring schemas).

This study has established from its results that the children obtained low scores for the "introduction" element in their [re]tellings in English and Chichewa derived from all three media of presentation used, even though the visually presented stories in both the film medium and the pictorial medium begin by providing visuals of the scenery in which the protagonist is situated. Similarly, the aurally presented stimuli in the aural medium begin by stating the exact location of

¹⁰⁵ As alluded to in section 5.3, the element "setting" is also referred to as the "introduction".

the protagonist. Tappe and Hara (2013, p. 321) report that only 17% of the children included a “setting” in their English [re]tellings whereas only 23% of the participants included a “setting” in their Chichewa [re]tellings (these results from Tappe and Hara only focus on the [re]tellings from “The mole and the radio” and “The mole and the rocket”). As alluded to in section 5.2, which explains why the children obtained low scores for “introduction” and “mental states” and high scores for “character development” and “conclusion”, the absence of “setting” information in the [re]tellings demonstrates that the children were influenced by the way Malawian folktales, rather than canonical stories, are narrated. Malawian folktales do not include the “setting” element. Furthermore, folktales narrated by most Malawians place an emphasis on characters and plotline because the audience is required to learn from characters’ behaviour and their actions (Jeppesen, 2012, p. 118). It is therefore not surprising that the children obtained low mean scores for the “introduction” element, which includes setting, and high mean scores in the “character development” element.

When a comparison is made between the number of “mental state” words that were included in the aural stimulus materials in English and the “mental state” words contained in the children’s [re]tellings in English the results of my study provide evidence of a low recall rate of these words. The English stimulus materials in this study contained 21 “mental state” words (see Table 4.28 in Chapter 4) but the average number of “mental state” words the children mentioned is 1.43 ($53 \div 37$) in each English [re]tellings from the film medium, while the average number of “mental state” words in each English [re]telling from the aural medium is 1.01 ($68 \div 67$). The children also managed to produce an average of 1.21 ($57 \div 47$) “mental state” words in each English [re]telling from the pictorial medium. These figures demonstrate that most of the children produced an average of one “mental state” word (an average of 1.43, 1.01 and 1.21 is 1.2) in each English [re]telling implying that very few mental states of the protagonist and supporting characters were mentioned.

Similarly, when we compare the total number of “mental state” words contained in the aural stimulus materials in Chichewa with the total number of “mental state” words contained in the [re]tellings in Chichewa, the results reveal a low recall rate. There were a total number of 24 mental state words in the aural stimulus material in Chichewa. However, the results (see Table 4.29 in Chapter 4) reveal that an average of 0.65 ($22 \div 34$) “mental state” words were mentioned

in Chichewa [re]tellings from the film medium while an average of 1.30 ($92 \div 71$) and 1.87 ($73 \div 39$) “mental state” words were mentioned from the aural and pictorial medium respectively, leading to an overall average of 1.27 mental state words in each Chichewa [re]telling. Overall, an average of one “mental state” word was mentioned in each Chichewa [re]telling. These results from Chichewa [re]tellings clearly show that very few mental state words about the protagonist and supporting characters were mentioned.

The results further illustrate that the children were unable to recall all the “mental state” words that were mentioned in the aural stimulus materials when [re]telling the stories in either English or Chichewa. If the children had managed to recall every single “mental state” word, a total of 1,407 (21×67) “mental state” words in English and a total of 1,704 (24×71) “mental state” words in Chichewa would have been contained in the [re]tellings. However, the children only managed to recall a total of 68 “mental state” words in English [re]tellings and a total of 92 Chichewa [re]tellings. This implies that only a small percentage of the possible “mental state” words were mentioned in English and Chichewa [re]tellings respectively ($68/1407 \times 100 = 4.83\%$) and ($92/1704 \times 100 = 5.40\%$).

As also reported in the results the children managed to use “mental state” words in their English [re]tellings that were not mentioned in the aural stimulus materials, such as “afraid” (9 in the film medium, 11 in the aural medium and 8 in the pictorial medium), “disappointed” (2 in the aural medium), “not happy” (3 in the film medium and 3 in the aural medium), “relieved” (1 in the film medium) and “worried” (1 in the film medium and 1 in the aural medium). However, the rate of utilisation of these “mental state” words is too low to be significant considering the total number of children who [re]told stories in English in the three media of presentation (37 in film medium, 67 in aural medium and 47 in the pictorial medium). Furthermore, the children also managed to mention mental states that were not mentioned in the aural stimulus materials in their Chichewa [re]tellings, such as *kuwopa* which means “afraid” (2 in the film medium, 2 in the aural medium and 7 in the pictorial medium), *kupsya mtima* which means “angry” (1 in the film medium and 1 in the aural medium) and *kukhumudwa* which means “disappointed” (1 in the film medium and 2 in the aural medium). However, as in the case of English [re]tellings, the rate of inclusion of these particular “mental state” words is too low given the total number of children

who [re]told stories in the three modes of presentation (34 from the film medium, 71 from the aural medium and 39 from the pictorial medium).

Other studies have also reported a low recall rate of inclusion of “internal responses” and “reactions”¹⁰⁶. A study that was conducted by Lorch, Sanchez, van den Broek, Milich, Murphy, Lorch Jr. and Welsh (1999, p. 306) reports that “internal responses” and “reactions” are least often recalled when young children retell stories. Lorch et al.’s study investigated children of four to six years of age whereas the children in my study were between ten and twelve years of age. According to Lorch et al., young children battle to recall “internal states” due to the fact that “internal responses” and “reactions” are not concrete events hence more difficult for children to recall or express in their [re]tellings. They assert that young children recall a greater proportion of “actions”, “initiating events” and “consequences” because these elements represent concrete events and are therefore easier for young children to understand and remember during recall (see chapter 2 for more details). It is not clear from Lorch et al.’s study which internal reaction words were present in the stimulus material and which internal reaction words the young children investigated did include in their recalls.

In contrast to Lorch et al.’s study, the older children in my study did employ some internal response adjectives; however, their focus was clearly not on the protagonist’s “internal reactions”. Tappe and Hara (2013, p. 314) hypothesise that this is because the “mental states” element is not considered part of the narrative text structure of folktales in Southern Africa.

The results of Acker’s (2012) study – which are much more relevant to my own investigation than Lorch et al.’s (1999) investigation – reveal that South African English- or Afrikaans-speaking children overall manage to describe character’s “internal reactions” much more consistently than the multilingual children in my study with Chichewa as their L1. Her results reveal that as much as 50% of five- to six-year-old children, 65% of six- to seven-year-old children and 68% of eight-and-a-half and nine-and-a-half-year-old children described character’s “internal reactions” (Acker, 2012, p. 56). Her results are further elaborated in the following quotation:

¹⁰⁶ As explained in section 5.2, mental states represent character’s reactions to “initiating events”, such as emotional responses, thoughts or intentions.

[a]lthough not statistically significant, an increase in the use of I[nternal] R[esponse] across the age groups was observed $\chi^2(2, N = 62) = 1.62, p = .44571$. This finding is supported by the findings of Roth and Spekman (1986), who found that only after children enter school at the age of 6 do they learn to tell stories pertaining to the “inner life” of characters (reflected by IR elements in their narratives) (Acker, 2012, p. 57).

These findings make it strikingly clear that the underrepresentation of mental state adjectives in the [re]tellings of the children in my study clearly sets them apart from what is expected of children in their age group.

Apart from an exceptionally low recall rate of “mental states”, the results of the present study indicated that the children are more inclined to assign the mental states “afraid” or “scared” to characters in their English [re]tellings (9 for “afraid” and 4 for “scared” in the [re]tellings from the film medium, 11 for “afraid” and 5 for “scared” from the aural medium and 8 for “afraid” and 4 for “scared” from the pictorial medium) than in their Chichewa [re]tellings (2 for *kuwopa* and 1 for *kukhala ndi mantha*¹⁰⁷ from the [re]tellings from the film medium, 2 for *kuwopa* and 9 for *kukhala ndi mantha* from the aural medium and 7 for *kuwopa* and 0 for *kukhala ndi mantha* from the pictorial medium) (see Table 4.28 and Table 4.29 in Chapter 4). They also use the verb “think” more often in their English [re]tellings (10 in the [re]tellings from the film medium, 11 from the aural medium and 9 from the pictorial medium) than in their Chichewa [re]tellings (1 in the [re]tellings from the film medium, 2 from the aural medium and 6 from the pictorial medium) (see Table 4.28 and Table 4.29 in Chapter 4). Furthermore, the results attest to the fact that the children are more inclined to assign the emotions “angry” and “surprised” to the protagonist in their Chichewa [re]tellings than in their English [re]tellings. Relatively high figures were recorded for occurrence of the words *kukwiya* (“angry”) and *kudabwa* (“surprised”) in the Chichewa [re]tellings from the aural medium (16 for *kukwiya* and 18 for *kudabwa*) and the pictorial medium (15 for *kukwiya* and 23 for *kudabwa*) respectively. Notably, the figures for occurrence of the words “angry” and “surprised” are relatively low in the English [re]tellings

¹⁰⁷ The two words, *kuwopa* and *kukhala ndi mantha*, both mean afraid or scared.

from the aural medium (4 for “angry” and 1 for “surprised”) and pictorial medium (7 for “angry” and 0 for “surprised”).

The children were inclined to describe the protagonist as “happy” in both languages but more often did so in Chichewa versions of their [re]tellings; however, the “mental state” word *kusangalala* (“happy”) was mentioned most often in Chichewa [re]tellings from the aural medium. The occurrence of the word *kusangalala* in the Chichewa [re]tellings from the aural medium is more frequent than the occurrence of the same word in the Chichewa [re]tellings from the film medium (11) and pictorial medium (22) respectively. Also this figure (i.e. 33) is higher than the figure for the occurrence of the word “happy” (i.e. 15) in the English [re]tellings from the aural medium (see Table 4.28).

According to Baron-Cohen, Golan, Wheelwright, Granader and Hill (2010, p. 1), there are six basic emotion words that are recognized cross-culturally. These words are “happy”, “sad”, “angry”, “afraid”, “surprised”, and “disgusted”. All the other emotion words, according to Prinz (2004, p. 83), are treated as derivations of the basic six. Prinz (2004, p. 79) uses the emotion word “jealousy” to illustrate how the other emotion words are derivations of the basic six. He explains that “jealousy” gives rise to other emotional reactions such as “sadness”, “fear”, “anger” and “disgust”. Furthermore, Prinz (2004, p. 83) regards all further emotion words as being culture-specific. Regarding this, Prinz (2004, p. 83) argues that “[c]ulture can exert an influence on how our bodies react. For example, we can train ourselves to suppress facial expressions or control breathing”.

The frequency of occurrence of the basic six emotion words in children’s [re]tellings in English is as follows: “happy” (N = 50), “sad” (N = 32), “angry” (N = 13), “afraid” (N = 28) and “surprised” (N = 1). The statistics for the frequency of the basic six emotion words used in children’s [re]tellings in Chichewa are as follows: *kusangalala* (“happy”) (N = 66), *kumva chisoni* (“sad”) (N = 3), *kukwiya/kupsya mtima* (“angry”) (N = 33), *kuwopa/kukhala ndi mantha* (“afraid”) (N = 21) and *kudabwa* (“surprised”) (N = 45). Even though the recall rate of emotion words is low, the children in this study managed to assign all of the five basic emotion words that were relevant to the stories they were presented with (with the exception of “disgusted”¹⁰⁸)

¹⁰⁸ Information contained in the stimulus materials (i.e. films, aural stories and pictures) for this study would not cause a viewer or listener to be inspired to use the word “disgusted”.

to characters in both their English and Chichewa [re]tellings. However, I cannot at this point in time offer an explanation as to why children use certain internal reaction words more when [re]telling a story in English than when [re]telling a story in Chichewa and vice versa. This study therefore recommends that researchers investigate further multilingual children's use of expressions of internal reactions.

5.8.3 The 'universality' of the canonical narrative text structure

The main argument in this section is that because the children's [re]tellings were influenced by elements from Southern African folktales, the children in this study seem to have acquired what may be referred to as an 'African' story grammar. Overall, the children demonstrated limited performance in elements associated with the canonical scoring schemas; so perhaps instead of arguing that the children were underperforming, the 'universality' of the canonical narrative text structure may be questioned. Another argument is that the canonical scoring schemas for narrative text structure available in the literature may not be suitable when analysing stories narrated by children with a mother tongue that employs different strategies in textual micro- and macrostructure from English.

My study has demonstrated that the children's [re]tellings contain elements that are prevalent in Southern African folktales ("repetition", "opening formulae", "closing formula" and "dialogues"). The results also indicate that the performance of the children in elements emphasised in Southern African folktales such as "character development" and "conclusion" was better than their performance in elements associated with the canonical scoring schemas, such as "introduction" (which includes "setting") and "mental states".

The children obtained high mean scores for "character development" and "conclusion" and low mean scores for "introduction" and "mental states". These results confirm the argument raised by Tappe and Hara (2013, p. 298) that "children who are not primarily exposed to canonical narrative text structures during socialisation may exhibit somewhat "non-canonical" text structure elements in their narratives". I therefore argue that the [re]tellings by children with a Southern African primary language may not conform to the Narrative Scoring Scheme (that is, canonical scoring schemas). Due to these results, I also question the suitability of canonical scoring schemas available in the literature for assessment of narrative text structure when analysing stories narrated by children with a Southern African language as their primary

language. This is because the canonical scoring schemas do not take into account most of the story elements that are prevalent in Southern African folktales, something this thesis has sought to address.

Because of these results, I also question the ‘universality’ of the canonical narrative text structure because the children in this study obtained low scores for elements associated with the canonical narrative text structure but obtained high scores for elements associated with Southern African folktales. Above all, I question the ‘universality’ of the canonical narrative text structure because the [re]tellings reflect that children seem to have a better knowledge of ‘African’ narrative text structure than “canonical” narrative text structure.

The following arguments have therefore been made in light of the findings in my study:

[...] language- and culture-specific differences may not always be easily reconcilable with Stein and Glenn’s (1979) contention that a linguistically-complete narrative consists of the seven logically-sequenced story grammar elements that they identify [...] Moreover, even Anderson and Evans’ (1996) canonical story grammar model – which is based on a larger body of previous research – might not be as canonical as is widely assumed (Tappe & Hara, p. 300).

Furthermore, the results in this study are not reconcilable with Mandler et al.’s (1980) suggestion that the kind of story schema that is found across different populations may be a cognitive universal. Apart from the results in my study, these arguments are also substantiated by similar findings from other studies (Kintsch & Greene, 1978; Tannen, 1979). In Kintsch and Greene’s (1978) study the participants found it more challenging to recall a story that was not familiar, i.e. a story from a different culture, than to recall a familiar story from their own culture, which they did with great ease. Their results strongly suggest that story schema is culture-specific and not a cognitive universal as suggested by Mandler et al. (1980).

5.9 Conclusion

This chapter has discussed the findings that were presented in Chapter 4. The focus was on three main findings. Firstly, the results revealed that the two languages themselves (Chichewa and English) that were used in story production do not have a significant influence on the frequency

of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children's [re]tellings. This is supported by the finding that the children obtained low mean scores for elements 1 and 3 and high mean scores for elements 2 and 7, irrespective of the language of presentation or the school type.

Secondly, the results also confirmed that the medium of the stimulus presentation does not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children's [re]tellings. Similar to the findings pertaining to the influence of language on narrative text structure, the children obtained low mean scores for elements 1 and 3 and high mean scores for elements 2 and 7, irrespective of the medium of presentation or the school type. Finally, the results demonstrated that the [re]tellings by children with a Southern African primary language (Chichewa) do not conform to the Narrative Scoring Scheme (that is, the canonical scoring schemas). These results therefore support the third prediction (refer to the predictions presented in the introduction as well as at the beginning of Chapter 4).

Because the children from Kapita obtained higher mean scores for English [re]tellings than the children from Mphungu, the results support the hypothesis that children attending a private school perform better than children from a public school when [re]telling stories in English from film and an aural version of the film due to the *academic language advantage* (Silburn, Nutton, McKenzie & Landrigan, 2011, p. 47). However, the children from Kapita obtained higher mean scores than the children from Mphungu for Chichewa [re]tellings as well. These results render false the hypothesis that children attending a public school would perform better than children attending a private school due to the *mother tongue advantage* when [re]telling stories in Chichewa from film and an aural version of the film. Finally, both groups of children obtained higher scores for [re]tellings of stories from the film medium than the aural and pictorial media. These results ratify the hypothesis made at the beginning of Chapter 4 that the children would perform well due to the *visual superiority effect hypothesis* (Rolandelli, 1989, p. 71).

There are two main arguments that have been made in this chapter. The first argument is that the 'universality' of the canonical narrative text structure may not be valid because the children's [re]tellings seem to have been significantly influenced by elements from Southern African folktales and also because the children demonstrated limited performance in elements associated

with the canonical scoring schemas. The second argument is that the canonical scoring schemas for narrative text structure available in the literature may not be suitable when analysing stories narrated by children with a Southern African language as their primary language.

The next chapter presents the conclusion for this thesis. It deliberates implications of the findings, limitations of the study and recommendations pertaining to areas for future research. In particular, the chapter discusses two implications: theoretical implications as well as practical educational implications.

Chapter 6: Conclusion

6.1 Introduction

It has been explained in the introduction that not all stories narrated by children in multicultural and multi-lingual societies conform to the ‘canonical’ narrative text structure. There is evidence that children who are not exposed to the ‘canonical’ narrative text structure narrate stories that contain ‘non-canonical’ text structure elements (Tappe & Hara, 2013, p. 298).

In this study, [re]tellings were analysed using a content-analytic method in order to identify information that match the elements reflected in the revised version of the Narrative Scoring Scheme (NSS). This method allowed me to distinguish between [re]tellings in English and [re]tellings in Chichewa, [re]tellings from the visual medium and [re]tellings from the auditory medium as well as [re]tellings by children attending a private school and [re]tellings by children attending a public school.

This chapter provides a summary of the findings. It also presents the implications of the findings with respect to theoretical and practical educational considerations. The chapter is divided into four sections: the first section (6.2) provides a summary of the findings, the second section (6.3) deliberates on implications of the findings, the third section (6.4) considers the limitations of the study and the final section (6.5) presents recommendations and areas for future research.

6.2 Summary of the findings

Firstly, the findings in this study have demonstrated that the two languages (Chichewa and English) that were used in story production do not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann, Miller & Nockerts, 2010a; Heilmann, Miller, Nockerts & Dunaway, 2010b) in the children’s [re]tellings. This is the case because the children obtained low mean scores for elements 1 (“introduction”) and 3 (“mental states”) and high mean scores for elements 2 (“character development”) and 7 (“conclusion”) irrespective of the language of presentation or the school type.

Secondly, the results furthermore support the claim that the medium of the stimulus presentation does not have a significant influence on the frequency of realisation of the canonical narrative text structure elements (Heilmann et al., 2010a, 2010b) in the children’s [re]tellings either as the children obtained low mean scores for elements 1 (“introduction”) and 3 (“mental states”) and

high mean scores for elements 2 (“character development”) and 7 (“conclusion”) irrespective of the medium of presentation or the school type.

Thirdly, the results have evinced that the [re]tellings by children with Chichewa as their L1 and English as their language of teaching and learning do not conform to the Narrative Scoring Scheme (that is, the canonical scoring schemas). This is borne out in the fact that the children obtained low mean scores for elements (“introduction” and “mental states”) that are more closely associated with a ‘canonical’ story grammar and high mean scores for elements (“character development” and “conclusion”) that are more closely associated with a Southern African story grammar. Additionally, the children’s [re]tellings contained elements that are especially prevalent in Southern African folktales such as “repetition”, “opening formulae”, “closing formulae” and “dialogues”.

Furthermore, the children from Kapita obtained higher mean scores for English [re]tellings than the children from Mphungu, supporting the hypothesis that children attending a private school would perform better than those from a public school when [re]telling stories in English from a picture book, from film and the aural version of the film due to the *academic language advantage* (Silburn, Nutton, McKenzie & Landrigan, 2011, p. 47). However, the children from Kapita also obtained higher mean scores than those from Mphungu for Chichewa [re]tellings, which challenges the hypothesis that children attending a public school would perform better compared to children attending a private school due to a *mother tongue advantage* when [re]telling stories in Chichewa from a picture book, a film and the aural version of the film.

Finally, both groups of children obtained higher mean scores for [re]tellings from the film medium than the aural or pictorial media. These results affirm the hypothesis made in the introduction and at the beginning of Chapter 4 that the children would perform well when [re]telling a film due to the *visual superiority effect hypothesis* (Rolandelli, 1989, p. 71). According to this hypothesis, “the visual modality of television is more salient and memorable” to children when compared to the auditory modality (Rolandelli, 1989, p. 69, 71).

6.3 Implications of the findings

Firstly, this section considers theoretical implications of the findings, discussing them from a theoretical perspective (6.3.1). Thereafter, the section considers the practical educational

implications of the current findings (6.3.2). In the discussion, some recommendations in relation to these implications are identified.

6.3.1 Theoretical implications

The results have provided evidence that the children's [re]tellings contain elements that are prevalent in Southern African folktales ("repetition", "opening" and "closing" formula and "dialogues") by demonstrating that the children obtained higher scores in elements (i.e., "character development" and "conclusion") that are more closely associated with Southern African folktales than those more closely associated with Western stories. In addition, the children obtained low scores for elements (i.e., "introduction" and "mental states") associated with the canonical narrative text structures which are core elements of prototypical Western stories.

One is able to make two main assumptions from these results. Firstly, the children seem to possess a story grammar that has strong leanings towards elements associated with Southern African folktales; i.e. a Southern African story grammar. Secondly, the Southern African story grammar that the children seem to possess is different from Stein and Glenn's (1979) story grammar and does not seem to contain all of the seven logically-sequenced story grammar elements (see Table 1.5 in Chapter 1 for more details). The proposed Southern African story grammar is also different from other versions of story grammar that researchers developed from Stein and Glenn's (1979) story grammar (see Anderson & Evans, 1996). Table 6.1 contrasts the Narrative Scoring Scheme elements with the proposed Southern African scoring scheme elements.

Table 6.1 The Narrative Scoring Scheme elements versus the proposed Southern African scoring scheme elements

Narrative Scoring Scheme elements	Proposed Southern African scoring scheme elements ¹⁰⁹
	Opening formula
Introduction(setting)	Introduction (setting)
Character development	Character development
Mental states	Mental states
	Repetition
Referencing	Referencing
	Dialogue
Conflict resolution	Conflict resolution
Cohesion	Cohesion
Conclusion	Conclusion
	Closing formula
	Moral lesson

Consonant with the findings obtained from this study, I argue that the [re]tellings by L1 Chichewa and L2 English speaking children under investigation do not conform to the Narrative Scoring Scheme (that is, the canonical scoring schemas). Another argument put forward is that the claim of a ‘universality’ of the canonical narrative text structure may not be valid because the children’s [re]tellings in my study were strongly influenced by elements from Southern African folktales. Further support for this argument may be adduced from the fact that they demonstrated weaker performance for elements with the canonical scoring schemas. Finally, the canonical scoring schemas for narrative text structure available in the literature may not be appropriate when analysing stories narrated by children with Chichewa as their L1 and English as their language of teaching and learning.

¹⁰⁹ The list here only considers elements discussed in this study.

6.3.2 Practical educational implications

6.3.2.1 Medium of presentation

Findings from studies (see Beagles-Roos & Gat, 1983; Hayes, Kelly & Mandel, 1986; Meringoff, 1980) that used different media of story presentation have indicated that each medium is unique as it has differing impacts on specific aspects of comprehension (for instance, reliance on visualised actions as opposed to reliance on auditory components when [re]telling stories or drawing inferences). Educators should accordingly be aware of the impact that different media of story presentation have on certain aspects of comprehension. For instance, for educators to learn more about children's use of vocabulary, figurative language and dialogues, self-generated stories from the pictorial and visual-only medium would be the most appropriate mode of story presentation. This is because studies have revealed that there is a tendency for children to include vocabulary that is used in aurally presented stories, especially figurative language, in their recalls. Furthermore there appears to be a tendency for children to retain dialogue that is featured in the aurally presented story. Educators are therefore likely to discover more about children's lexical diversity in their [re]tellings, if they allow the children to generate their own stories.

Furthermore, educators should be made aware of the effect that each medium of story presentation has on learning outcomes. In particular, they need to be aware of the recall advantage associated with film/movie presentations. This implies that instead of relying on audio and print modes of story presentation, educators may also use the visual mode of story presentation to maximize learning outcomes. However, as pointed out in this thesis (see section 5.3), this does not mean that the visual mode of presentation is sufficient in itself in terms of comprehension of programme content. The visual modality complements the audio modality and vice versa. In agreement, Rolandelli (1989, p. 72) states, "while the visual modality has been found to facilitate auditory processing" as observed in the study conducted by Rolandelli, Wright and Huston (1985), "the auditory component can facilitate visual processing as well". However, it is worth noting that Southern African schools may be under resourced. Learners may not have exposure to television in the same way that children in Western countries do.

6.3.2.2 Storytelling in educational settings

It is recommended, based on the evidence derived from this thesis that educators be made aware of different narrative text structures when teaching and assessing narrative text structure so that they do not discourage those children who retell stories that do not meet the criteria when assessing narrative abilities in either educational or scientific settings. In particular, educators need to be aware that stories narrated by Southern African children may include elements that are associated with folktales and that children who retell stories that include such elements should not be penalized. Southern African children are more likely to retell stories that include elements from folktales; and for these children even the mode of presentation that is often asked of them in the educational environment may alienate them. As Tappe and Hara (2013, p. 324) point out, “[re]telling a narrative by way of a monologue may feel alien and unnerving”. In sum, educators should avoid regarding stories that are narrated following the canonical or Anglo-American narrative text structure as the “norm”. In this regard, Tappe and Hara (2013, p. 306) state that “[i]t seems to us that a conformity of narratives to an Anglo-American story schema, that is acquired by exposure to stories from this particular linguistic and cultural context, is widely assumed to be universal and hence the ‘norm’”. Educators need to recognise whether stories that children narrate in schools conform to the canonical (or Anglo-American) story grammar or the Southern African story grammar. Children who narrate stories that reflect narrative text structure different from the ‘norm’ are more likely to be discouraged from participating in storytelling if they are told that their stories are not ‘good’.

The idea that Southern African children might be used to the traditional way of storytelling which includes a participating audience is evidenced by the observation that some children in this study included elements of oral narrative performance such as the response *tilitonse* (“we are together”) in their [re]tellings, which is meant to be uttered by the audience in a live performance. Additionally, the fact that Southern African children are accustomed to including elements from oral narrative performance when [re]telling stories has been illustrated in this study by the way some children included a moral lesson at the end of the story, regardless of the language of the aurally presented story.

In conclusion, educators – especially those teaching in multilingual and multicultural societies – need to be made aware of the fact that narrative practices vary greatly across languages.

Consequently, they need to attempt to embrace different forms of storytelling. The results from my study illustrate how narrative practices are divergent across languages. In particular, the results reveal that the way the children included elements from the Southern African story grammar (i.e., “repetition”, “opening formulae”, “closing formulae” and “dialogues”) in their recalls varied in the two languages. The children used more of one element when [re]telling a story in one language and used less of the same element when [re]telling the story in the other language. These findings have therefore demonstrated that the two languages (Chichewa and English) that were used in story production do have an influence on the frequency of realisation of Southern African story grammar elements.

6.4 Limitations of the study

This section discusses some limitations of the study in relation to stimulus materials (section 6.4.1) and participants (section 6.4.2). In the discussion, certain areas that future research needs to take into consideration are identified.

6.4.1 Stimulus materials

This study was unable to use an African story as a control measure because of time constraints. Most importantly, the significance of African story telling elements arose as a result of the current investigation. In our future research we will include African stories and African storytelling techniques. It will be interesting to see differences between self-generated stories from a pictorial medium depicting an African story and self-generated stories from a pictorial medium depicting a Western story. It has been established in this study that the story depicted in the pictorial medium (i.e. “Frog, where are you?”) may have been alien to many of the children as they had difficulty including the “problem-resolution” structure of the story. The children may not have been familiar with the content of the story because the idea of keeping a frog as a pet may not be familiar to a Southern African child. The children therefore narrated their stories without including the expected problem-resolution plot structure (that is, that the story revolved around finding a lost frog). We hope that by including African stories in research that will emanate from this thesis and from Tappe and Hara’s (2013) findings we will help to preserve the rich repertoire of Southern African oral traditions.

6.4.2 Participants

The participants in this study were multilingual with Chichewa and English as their dominant languages. The study was however unable to involve monolingual speakers of English or Chichewa for control purposes because it was impossible to find a sufficient amount of monolingual children for either language in Lilongwe, Malawi. An attempt was therefore made to seek comparative data collected from studies focusing on monolingual or multilingual Southern African children but such data was not readily available; a notable exception, however, was the study by Acker (2012) which was used for comparison.

Furthermore, this research set out to assess an equal number of children from the two groups especially in each of the seven conditions assigned to them. However, there were unequal numbers of children in the two groups and conditions due to a number of reasons.

Firstly, some parents removed their children from the private school (Kapita) because the school had hiked fees at the beginning of the academic year (the academic year in Malawi begins in September and data collection in the main phase took place in November, that is, towards the end of first term). Secondly, some children from the public school (Mphungu) had transferred to another school because their parents were no longer living in locations close to the school as they had found jobs in areas far away from the school. Thirdly, there was a lot of absenteeism of children at both schools because data collection in the main phase took place towards the end of the term, that is, at the time when the children had finished writing examinations. As a result, some children were not reporting for classes. Because of these reasons, it was difficult to ensure and maintain an equal number of children in the groups and conditions after a lapse of one week (during the main phase of data collection) and four months (between phase 1 and phase 2 of data collection).

6.5 Recommendations and areas for future research

There are three main recommendations that this study makes in accordance with the theoretical implications of the findings discussed above. Firstly, further research is required to investigate narrative skills of Southern African children in order to enhance knowledge and understanding about Southern African story grammar. Additionally, further research is required in languages that have been under-represented in or absent from text comprehension research. This is because existing research has not concentrated enough on macrostructural differences between texts

produced in different languages; further research is required to assess language- and culture-specific narrative text structure elements. Finally, researchers in the area of text comprehension need to establish/devise a narrative scoring schema that is suitable for analysing stories narrated by children with minority and under-researched languages. In other words, there is a need for a narrative scoring schema for assessing stories narrated by participants whose stories reflect a 'non-canonical' narrative text structure. In defence of this contention, Tappe and Hara (2013, p. 298) point out that "current assessment methods might be inappropriate to capture the children's full potential in terms of their actual narrative skills". The teaching and the assessment of narrative text structure should rather be based on "[...] linguistic descriptions of ethno-linguistic discourse patterns (contrastive rhetoric)" (Barnitz, 1986, p. 95).

Other recommendations include further investigation into inferential and causal relationships as conveyed in multilingual children's [re]tellings. There is evidence that research has been done in these areas but it has most often targeted monolingual children who are not speakers of African languages. This field of study would benefit from more research into text comprehension conducted on multilingual children who are speakers of African languages.

Finally, I recommend that further studies be conducted which investigate multilingual children's use of "mental state" words in their [re]tellings. Such research should particularly investigate why children use certain "mental state" words more when [re]telling a story in one language than when [re]telling it in another language.

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¹¹⁰ Much as I am aware that 'a' and 'b' are used to refer to multiple works by the same author(s) published in the same year, in this thesis I use 2010a and 2010b respectively when citing the two articles by Heilmann, Miller and Nockerts and Heilmann, Miller, Nockerts and Dunaway in order for the reader to be able to know which reference I am referring to in the text when I use Heilmann et al.

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Appendices

Appendix 1

Pilot study

In this pilot study, I was interested in assessing story grammar in participant's retellings. In other words, I wanted to assess whether participant's retellings were in line with story grammar rules (Mandler, 1978; Mandler & Johnson, 1977), that is, that a story ought to have two main categories, the setting and the episodic categories (Stein & Glenn, 1979). I analysed the stories in terms of these categories as demonstrated below.

Table 1 Story from the pilot study written down* by participant number one soon after watching the cartoon film "The mole and the rocket"

It's a story about a penguin. In the beginning the penguin is stuck in the bucket and as it comes out it takes its little marble and starts rolling it. The marble rolls on to a sand hill where there's a rocket ship on top. The little penguin doesn't know what a rocket is and it's scared of the rocket. It sneaks on the rocket ship and looks at it. It takes its marble and throws it inside the rocket and he also gets inside. The penguin presses 2 buttons and the rocket vibrates and he's scared. The rocket then flies in the air and the penguin likes it. The engine makes loud noises meaning that the rocket is broken. The rocket crashes on a small island and the little penguin gets out of the rocket and starts looking around at the shell. Then the penguin sees a crab coming out of the water and the penguin gets scared and runs and hides in a shell. The crab comes after the penguin and shows the penguin a shell and they become friends. The crab shows the penguin its marble that is white and the penguin shows the crab its marble that is orange and they exchange marbles. The penguin then wants to go home but the rocket is broken and the pieces are missing. The crab decides to help him find the pieces one by one. As they're finding the pieces they're also setting some animals free. They see a bottle in the ocean that looks like the top part but they find that it's not it. The penguin gets inside the bottle and it can see the fish in the sea. The fish in the sea helps find the rest of the pieces and when they finish they put everything together but the top part is missing. They see footprints that look like the missing part. They see that it's crocodile footprints and they get scared and hide but they see an animal bouncing on top of it and they also go and bounce because it's a toy. They then find the piece and a child swims there from the water and the crab and penguin run from the child and quickly puts the last piece and the penguin flies off and the crab waves goodbye and the child comes and throw the arrow but it doesn't reach the rocket and the penguin winks and flies away.

*This is the original story which was written down by the participant. All the errors (in terms of grammar, spelling, etc.) were made by the participant.

The story narrated by participant number one above contains basic elements that are not included in participant number two's story below. However, the participant does not give information about the setting but the story generally contains some details that are not included in participant number two's story.

Table 2 Analysis of participant number one's story according to story grammar rules

Category	Elements	Details from participant number one's story
Setting category	A formal beginning	This story has a beginning when the participant says 'it's a story about ...'
	A formal ending	The story does not end with a formal ending but the participant narrates that the mole and the crab finally find the last piece they were looking for. They put it back in its place and the mole flies away.
	An orientation that introduces setting and characters	The participant introduces the main character. However, we do not know much from the story about orientation settings as the participant concentrates on the activities that the main character is involved in "... the penguin is stuck in the bucket ... it takes its marble and starts rolling it". She does not give information about the locale. Regarding character descriptions, the participant refers to the mole as a penguin but she has managed to introduce the main character with reference to his activities.
Episodic category	An initiating event that influences a character	The participant narrates that the mole presses two buttons. This causes the rocket to fly up in the sky "the penguin presses two buttons and the rocket vibrates ... flies in the air".
	The character's internal response to this event	The participant narrates that the mole was scared when the rocket started vibrating and later on started enjoying the flight "... the rocket vibrates and he's scared. The rocket then flies in the air and the penguin likes it."
	The character's internal plan to solve the problem or change the situation	The mole becomes friends with the crab who helps him gather the scattered pieces of the rocket "the crab decides to help him find the pieces and they find the pieces one by one".

	The character's attempt to solve the problem	The participant fails to mention the mole's attempts such as pointing at the parts of the rocket in the sea for his friend to collect on his behalf. The participant does not show in the story the role that the mole played while in the bottle towards solving his problem, that is, that the mole was able to see the parts of the rocket while in the bottle which he showed the other sea animals to collect.
	A consequence that is caused by the attempt	The participant does not recall that the mole while in the bottle moves far away because of the tides and waves and when he comes back where his friend is the waves and tides make the bottle fly high up in the air and breaks on the rock.

Table 3 Story from the pilot study written down* by participant number two soon after watching the cartoon film “The mole and the rocket”

What think. I think that it was a mouse coming out of the sand. With a play ball and the mouse went to the moutain. And the mouse see a space ship. and the mouse farst throug the ball and it start peping inside and it start geting inside. then a spaceship started to fly. And it get to the land beach were they was a frog. And the spaceship blow out to the water. And A frog try to help the mouse the frog jumps into the water and get the back part of a space ship and the frog take a bottle and a mouse went to the water with the bottle and it started to see the spaceship piece. and it poited the piece and the frog started to get the pieces after that. The frog get out of the bottle. They start to biuld the space ship and some part of the ship missing and they started looking it. and they work up 2 the moutain. and over the moutain they was a crocodile. and they hide over the moutain about 10 min after that they went to the crocodile and they relarise that it was a play crocodile. and they sow the baketful of water and they spilte the water. and they find the piece which was missing. and the person come and chece the frog and mouse aha the mouse get a spaceship and fly away and a frog get in the water.

*This is the original story which was written down by the participant. All the errors (in terms of grammar, spelling, etc.) were made by the participant.

The analysis below shows that participant number two's story does not reflect story grammar rules. The participant fails to include an event which leads to the development of the plot. The participant also has a problem with the onset of the plot, the unfolding of the plot but she has tried to provide the resolution of the plot. In other words, this participant fails to provide more plot line components than participant number one. This is contrary to the findings in literature which report that very young children of less than five years old are the ones who struggle to

narrate stories with more plot line components than older children of 5 or 6 years of age and more (Berman, 1988, Montanari, 2004). According to Berman (1988) and Montanari (2005), children of five years and more ought to be able to include core components of the narrative; such as, setting, initiating actions, goals and attempts. The way that participant two narrated this story does not represent what is in literature about ten year old children's story grammar.

Table 4 Analysis of participant number two's story according to story grammar rules

Category	Elements	Details from participant number two's story
Setting category	A formal beginning	The story does not begin with the traditional fairy-tale opening.
	A formal ending	Even though the story does not end with the traditional fairytale closing, the participant manages to end the story by saying that the mole gets his rocket, in other words, his rocket has been fixed and he flies away "... the mouse get a spaceship and fly away ...".
	An orientation that introduces setting and characters	This participant begins her story by describing what the main character was doing. She does not provide the actual setting for the story. The participant refers to the main character, mole, as mouse and the supporting character is called frog instead of crab.
Episodic category	An initiating event that influences a character	The participant does not mention the event that made the rocket fly. She only talks about the mole peeping inside the rocket and getting inside the rocket and then the rocket starts to fly "... and it start peping inside and it start geting inside. then a spaceship started to fly".
	The character's internal response to this event	Apparently the participant does not provide any internal response or reaction when the rocket starts flying up in the sky. No internal response is given even after the rocket crashes on the island.
	The character's internal plan to solve the problem or change the situation	The participant does not include any specific plan in the recall. She says that the crab tries to help "... a frog try to help the mouse the frog jumps in to the water and get the back part of a spaceship". The participant does not actually say how the mole and crab became friends, which is very significant in the story. The participant does not say that the mole's problem was solved through this friendship.
	The character's attempt to solve the problem	the participant mentions that the mole sees the pieces of the rocket in the water and he points at them for his friend, crab, to get them from the water "... a mouse went to the water with the bottle and it started to see the spaceship piece and it poited the piece and the frog started to get the pieces after that".

Appendix 2

Results from parent questionnaire on language background

Gender:

Gender	Male	Female
Of 127	63	64

Age:

Age	10	11	12
Of 127	44	40	43

Q1: What language or languages does your child/ward speak?

Language(s)	Chichewa	English	Both Chichewa and English	Other languages
Of 127	32	4	90	9

Q2: What language or languages do you use when interacting with your child/ward?

Language(s)	Chichewa	English	Both Chichewa and English	Other languages
Of 127	45	5	74	7

Q3: What language or languages is your child/ward more comfortable with when interacting with others?

Language(s)	Chichewa	English	Both Chichewa and English	Other languages
Of 127	62	32	33	3

Q4: Does your child/ward read books written in:

Language(s)	Chichewa	English	Both Chichewa and English	Other languages
Of 127	10	12	104	2

Q5: Does your child listen to any story telling at home?

Yes	No
119	7

Q6: If you said yes to question 5 above, what languages are used in story telling?

Language(s)	Chichewa	English	Both Chichewa and English	Other languages
Of 127	51	11	56	6

Q7: Does your child/ward tell or retell stories in:

Language(s)	Chichewa	English	Both Chichewa and English	Other languages
Of 127	56	9	58	5

Q8: Does your child/ward know any of the following oral traditional practices: riddles, songs, poems and proverbs?(**Oral traditional practices are methods in which riddles, songs, poems, proverbs, among others are passed on from generation to generation especially by oral communication**).

Yes	No
112	8

Q9: List the oral traditional practices that your child knows.

Riddles	Songs	Poems	Proverbs	Other* traditional practices
65	90	55	46	29

*Other traditional practices include folktales, dances and drama.

Q10: Tick in the table below to indicate language or languages your child/ward uses when engaging in the oral traditional practices in question 9 above. If your child/ward uses other languages not mentioned in the table, please write them down in the last column.

Language(s)/oral traditional practices	Chichewa	English	Both Chichewa and English	Other languages
Riddles	43	7	42	4
Songs	27	10	70	4
Poems	20	14	44	2
Proverbs	29	3	33	6

Appendix 3

Questionnaire for Parents/Guardians in English

My name is Agness Hara. I am a doctoral student in Linguistics in the School of Arts at the University of KwaZulu-Natal in South Africa. I am doing research on the topic *Children's comprehension of cartoon film and aural story*. This research will help in improving the school's curriculum. Your assistance is kindly requested in the answering of a questionnaire which will assist in sourcing relevant background information. Answering of the questionnaire will take approximately 15 minutes of your time. Please feel free to contribute any vital information as guided by the questions. Please be reminded that your participation and your child's/ward's participation in this research as indicated in the informed consent form is entirely voluntary and that you and your child/ward have the right to withdraw from participating at any point. Further, this study does not require you and your child/ward to reveal your identities and all responses will be treated in a confidential manner. Your contribution and your child's/ward's contribution to this research is sincerely valued.

INSTRUCTION: Please tick the answer of your choice or write in the space provided as the case may be. Please answer the questions truthfully. Completed questionnaires should be returned to your child's/ward's school.

1. What language or languages does your child/ward speak?
 - a. Chichewa
 - b. English
 - c. Both Chichewa and English
 - d. Other languages.....
2. What language or languages do you use when interacting with your child/ward?
 - a. Chichewa
 - b. English
 - c. Both Chichewa and English
 - d. Other languages.....
3. What language or languages is your child/ward more comfortable with when interacting with others?

- a. Chichewa
 - b. English
 - c. Both Chichewa and English
 - d. Other languages.....
4. Does your child/ward read books written in:
- a. Chichewa
 - b. English
 - c. Both Chichewa and English
 - d. Other languages.....
5. Does your child listen to any story telling at home?
- a. Yes
 - b. No
6. If you said yes to question 5 above, what languages are used in story telling?
- a. Chichewa
 - b. English
 - c. Both Chichewa and English
 - d. Other languages.....
7. Does your child/ward tell or retell stories in:
- a. Chichewa
 - b. English
 - c. Both Chichewa and English
 - d. Other languages.....
8. Does your child/ward know any of the following oral traditional practices: riddles, songs, poems and proverbs? (**Oral traditional practices are methods in which riddles, songs, poems, proverbs, among others are passed on from generation to generation especially by oral communication**).
- a. Yes
 - b. No
9. List the oral traditional practices that your child knows.....
.....

-

10. Tick in the table below to indicate language or languages your child/ward uses when engaging in the oral traditional practices in question 9 above. If your child/ward uses other languages not mentioned in the table, please write them down in the last column.

	Chichewa	English	Both Chichewa and English	Other languages
Riddles				
Songs				
Poems				
Proverbs				

Questionnaire for Parents/Guardians in Chichewa

MAFUNSO OYANKHA MAKOLO KAPENA WOYANG'ANIRA MWANAYO

Dzina langa ndine Agness Hara. Ndikuchita maphunziro awukadaulo mu ziyankhulo ku sukulu yaukachenjede ya KwaZulu-Natal ku South Africa. Pakali pano, ndikuchita kafukufuku pa mutu wokhudzana za *Kamvetsetsedwe ka ana pa makanema a makatuni komanso nkhani zongomvera wina akamawerenga*. Kafukufukuyi adzathandiza kukonza ndondomeko ya maphunziro yomwe imapatsidwa mu sukulu zathu. Choncho ndikupempha kuti mundithandizeko kuyankha mafunsowa omwe apereke chiyambi/kapena mbiri ya mwana wanu. Kuyankha mafunsowa kukutengerani mphindi zosaposeera khumi ndi zisanu. Chonde khalani omasuka kupereka uthenga wina uliwonse mothandizidwa ndi mafunsowa. Ndingokukumbutsaninso kuti inu ndi mwana wanu simuli wokakamizidwa kutenga nawo gawo mu kafukufukuyi ndipo mukhonza kusiya nthawi ina iliyonse ngati mwaganiza kuti mutero. Komanso kafukufukuyi sakufuna kuti muchite kupereka dzina lanu ndi la mwana wanu ndipo mayankho onse amene mungapereke sadzawululidwa kwa wina aliyense. Kutenga gawo kwa inu ndi mwana wanu kukhala kofunikira kwambiri.

LANGIZO:

Chongani yankho lomwe mwasankha kapena mukhonza kulemba mu mpata womwe mwapatsidwa malingana ndi momwe muwonere. Chonde perekani mayankho anu

mwachilungamo. Mukamaliza kuyankha, tumizani mafunsowa ndi mayankho ake ku sukulu ya mwana wanu.

1. Kodi mwana wanu amayankhula chiyankhulo kapena ziyankhulo ziti?
 - a. Chichewa
 - b. Chingerezi
 - c. Zonse ziwiri Chichewa ndi chingerezi
 - d. Ziyankhulo zina _____

2. Kodi mukamayankhula ndi mwana wanu munagwiritsa ntchito chiyankhulo kapena ziyankhulo ziti?
 - a. Chichewa
 - b. Chingerezi
 - c. Zonse ziwiri Chichewa ndi chingerezi
 - d. Ziyankhulo zina _____

3. Kodi mwana wanu amasangalatsidwa ndi chiyankhulo kapena ziyankhulo ziti akamacheza ndi anthu ena?
 - a. Chichewa
 - b. Chingerezi
 - c. Zonse Chichewa ndi chingerezi
 - d. Ziyankhulo zina _____

4. Kodi mwana wanu amawerenga mabuku olembedwa mu:
 - a. Chichewa
 - b. Chingerezi
 - c. Zonse Chichewa ndi chingerezi
 - d. Ziyankhulo zina _____

5. Kodi mwana wanu amamvetsera nkhanu zonedwa pa khomo?
 - a. Inde
 - b. Ayi

6. Ngati mwayankha kuti “Inde” pa funso 5 lili pamwambali, kodi nkhanizo zimanenedwa mu ziyankhulo ziti?
 - a. Chichewa
 - b. Chingerezi
 - c. Zonse ziwiri Chichewa ndi chingerezi
 - d. Ziyankhulo zina _____

7. Kodi mwana wanu amayankhula kapena kuyiyankhulanso nkhani mu:
- Chichewa
 - Chingerezi
 - Zonse ziwiri Chichewa ndi chingerezi
 - Ziyankhulo zina _____
8. Kodi mwana wanu amadziwa zinthu zoonetsa chikhalidwe zotsatirazi zomwe zimayankhulidwa ndi pakamwa: nthabwala, nyimbo, ndakatulo, ndi mikuluwiko? **(Zinthu zosonyeza chikhalidwe zoyankhulidwa ndi pakamwa ndi njira yodutsitsira zinthu ngati nthabwala, nyimbo, ndakatulo, mikuluwiko, ndi zina zotere, kuchoka m’badwo wina kupita wina pogwiritsa ntchito mawu a pakamwa)**
- Inde
 - Ayi
9. Tchulani zinthu zoonetsa chikhalidwe zoyankhulidwa ndi pakamwa zomwe amadziwa mwana wanu
-
- _____
- _____
- _____
10. Chongani mu timabokosi tili m’munsimu kuti wuonetse chiyankhulo kapena ziyankhulo zomwe mwana wanu anagwiritsa ntchito akamayankhula zinthu zoonetsa chikhalidwe zoyankhulidwa ndi pakamwa mwatchula mufunso 9 ili pamwambapa. Ngati mwanayo amagwiritsa ntchito ziyankhulo zina zomwe sizinatchulidwe m’munsimu, lembani m’timpata tamabokosi mwapatsidwa ku mbali yanu yakumanja.

	Chichewa	Chingerezi	Zonse Chichewa ndi Chingerezi	Ziyankhulo zina
Nthabwala				
Nyimbo				
Ndakatululo				
Mikuluwiko				

Appendix 4

Questionnaire for Teachers

My name is Agness Hara. I am a doctoral student in Linguistics in the School of Arts at the University of KwaZulu-Natal. I am doing research on the topic *Inference Making Abilities of Multilingual Children*. Your assistance is kindly requested in the answering of a questionnaire which will assist in sourcing relevant information with regards to multilingual children's inferential comprehension. Answering of the questionnaire will take approximately 15 minutes of your time. Please feel free to contribute any vital information you deem significant to this study. Please be reminded that your participation in this research as indicated in the informed consent form is entirely voluntary and that you have the right to withdraw from participating at any point. Further, this study does not require you to reveal your identity and all responses will be treated in a confidential manner. Your contribution to this research is sincerely valued.

1. Do you teach English comprehension? (English comprehension lesson refers to a lesson in which pupils read or listen to a passage in English and answer questions afterwards in English)
 - a) Yes
 - b) No
 Comments:.....

2. Is English comprehension part of the school's curriculum?
 - a) Yes
 - b) No
 Comments:.....

3. Do you teach Chichewa comprehension? (Chichewa comprehension lesson refers to a lesson in which pupils read or listen to a passage in Chichewa and answer questions afterwards in Chichewa)
 - a) Yes
 - b) No
 Comments:.....

4. Is Chichewa comprehension part of the school's curriculum?
 - a) Yes
 - b) No
 Comments:.....

5. If you teach Chichewa comprehension or English comprehension or both, what sort of questions do students answer?
- a) Questions that elicit facts or information from the text
 - b) Questions that make students infer information not provided in a text
 - c) Both a) and b)

Comments:.....
.....

6. Give reason(s) for your answer to question 5 above.

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

7. Do you teach your students how to
- a) answer questions that elicit facts or information from the text
 - b) answer questions that lead them to infer information not provided in a text
 - c) answer both types of questions as in a) and b) above

Comments:.....
.....

8. Give reason(s) for your answer in question 7 above.

.....
.....

Appendix 5

Narrative Assessment Protocol developed by Justice, Bowles, Pence and Gosse (2010, p. 229)

Child's Name:			Coder:				
Child's Age:			Narrative Collection Date:				
			NAP Scoring Date:				
NAP Items	Frequency						Examples
Sentence Structure							
Compound sentence	0	1	2	3	4	5+	She likes it so she'll buy it.
Complex sentence	0	1	2	3	4	5+	That boy who hit me is mean.
Negative sentence	0	1	2	3	4	5+	The frog can't go there.
Interrogative sentence	0	1	2	3	4	5+	Frog, are you hiding in the boot?
Phrase Structure							
Elaborated noun phrase	0	1	2	3	4	5+	The little dog saw the frog.
Compound noun	0	1	2	3	4	5+	The dog and the boy got it.
Prepositional phrase	0	1	2	3	4	5+	The boy looked into his boot.
Modifiers							
Adverb	0	1	2	3	4	5+	He was really angry.
1.							
2.							
3.							
4.							
5.							
Advanced modifier	0	1	2	3	4	5+	The frog was in the filthy water.
1.							
2.							
3.							
4.							
5.							
Nouns							
Pluralized noun	0	1	2	3	4	5+	The five frogs got in.
1.							
2.							
3.							
4.							
5.							
Possessive pronoun	0	1	2	3	4	5	The boy's hat was lost.

1.							
2.							
3.							
4.							
5.							
Tier-two noun	0	1	2	3	4	5+	She was the doe in the woods.
1.							
2.							
3.							
4.							
5.							
Verbs							
Auxiliary verb + main verb	0	1	2	3	4	5+	The boy is yelling at the dog.
1.							
2.							
3.							
4.							
5.							
Copula 'be' verb + ...	0	1	2	3	4	5+	The frog was here.
1.							
2.							
3.							
4.							
5.							
Irregular past tense verb	0	1	2	3	4	5+	The dog fell.
1.							
2.							
3.							
4.							
5.							
Regular past tense verb	0	1	2	3	4	5+	The dog walked.
1.							
2.							
3.							
4.							
5.							
Tier-two verb	0	1	2	3	4	5+	The frog whirled around
1.							

2.							
3.							
4.							
5.							
Compound verb	0	1	2	3	4	5+	The frog danced and ran
1.							
2.							
3.							
4.							
5.							

Appendix 6

Narrative Assessment Protocol in Chichewa adapted from Justice, Bowles, Pence and Gosse (2010, p. 229)

Dzina la mwana: Zaka zake:	Dzina la wolemba:						Tsiku:
ZOMWE NDIZIWONA	MULINGO						ZITSANZO
Mitundu ya Ziganizo							
Chiganizo cha ziganizo zingapo	0	1	2	3	4	5+	Mnyamatayu wamenya galu koma galuyo sanafe
Chiganizo cha nthambi	0	1	2	3	4	5+	Musakhumudwe ndi zimene ndikunenazi
Chiganizo chotsutsa	0	1	2	3	4	5+	Ine sindifuna kupita
Chiganizo chofunsa	0	1	2	3	4	5+	Ndani angandithandizeko ntchitoyi?
Mitundu ya akapandamneni							
Kapandamneni wa dzina	0	1	2	3	4	5+	Mnyamata wohera mayeso uja wathawa
Kapandamneni wa eninkhani angapo	0	1	2	3	4	5+	Mnyamata ndi mtsikana abwera mawa
Kapandamneni wa mperekezi	0	1	2	3	4	5+	Ndamupeza kuseri kwa nyumba
Mawu amene amafotokoza kapena kuwonjezera							
Awonjezi	0	1	2	3	4	5+	Anakwiya kwambiri
1.							
2.							
3.							
4.							
5.							
Awonjezi/Afotokozi otsindika	0	1	2	3	4	5+	Madzi awa adetsetsa
1.							
2.							
3.							
4.							
5.							

Maina							
Dzina losonyeza kuchuluka kwa zinthu	0	1	2	3	4	5+	Anyani aba mikanda
1.							
2.							
3.							
4.							
5.							
*Dzina losonyeza kuchuluka koma silisintha	0	1	2	3	4	5+	Nyumba zanga ndi zazikuluzikulu
1.							
2.							
3.							
4.							
5.							
Dzina la mwinichinthu	0	1	2	3	4	5+	Mwanyamula dzira la njoka
1.							
2.							
3.							
4.							
5.							
Dzina lonenedwa mopatsa chidwi, mwatchutchutu, kapena lokhala ndi kapandamneni	0	1	2	3	4	5+	Mtsikanayu ndi njoka mu udzu
1.							
2.							

3.							
4.							
5.							
Aneni							
Mneni wothandiza+mneni weniweni	0	1	2	3	4	5+	Malita ali kugulitsa chimanga
1.							
2.							
3.							
4.							
5.							
<i>Chichewa does not have copular “be” verbs and Irregular Past tense verbs</i>							
Aneni osonyeza nthawi yakale	0	1	2	3	4	5+	Abambo adapita kumudzi
1.							
2.							
3.							
4.							
5.							
Aneni onena watchutchuchu, kapena wonena wopatsa chidwi	0	1	2	3	4	5+	Mkango unatumbwa kwambiri
1.							
2.							
3.							
4.							

5.							
Aneni okhala ndi mlumikizi	0	1	2	3	4	5+	Kunali kudya ndi kumwa
1.							
2.							
3.							
4.							

Appendix 7

Sample 1: Retelling of the picture book “Frog, where are you?” (Mayer, 1962) followed by NAP test scores

Once upon a time there lived a boy. The boy had a frog and a dog, one day he decided to have a nap. He didn't close the jar which used to keep the frog in. So after he woke up he found the frog ... the frog was not in the jar. He looked for the frog but he didn't find it. He thought it was his dog who took the frog ... who took the frog. So he told his dog not to do that. He searched for the frog in his shoes, outside the window and he searched for the frog in the forest. So when he got near he found a beehive. And his dog was playing with the beehive. So after the beehive fell down bees came out from the beehive while the boy was checking in the big tree. And the big tree had a hole. Then the boy fell down and the bees started chasing the dog. The boy was chased by an owl. Then the boy climbed on the stone ... there was a moose. He thought they were ... they were just branches of a small tree. Then he was carried by the moose and when he wanted to get off the moose he failed. The moose kept on running and they fell on the ground. He fell in the water. So there was a tree, a tree which fell in the river. He climbed over it to go to the other side. So he told his dog not to make noise. So the boy found a family, a family of a frog and its children. So he ... he found that one of the frogs was his frog. One of those frogs were one of his frogs.

Coder: Researcher		Child's Age: 12	Total Frequency: 70
NAP Items	Frequency	Details	
Sentence Structure	Whatever it is	Example	
Compound sentence	1	-He looked for the frog but he didn't find it	
Complex sentence	6	-He didn't close the jar which used to keep the frog in -So after he woke up he found the frog -He thought it was his dog who took the frog -So after the beehive fell down bees came out from the beehive while the boy was checking in the big tree -When he wanted to get off the moose he failed -So when he got near he found a beehive	
Negative sentence	5	-He didn't close the jar -The frog was not in the jar -He didn't find it -So he told his dog not to do that -So he told his dog not to make noise	
Interrogative sentence	0		

Phrase Structure		
Elaborated noun phrase	2	- The big tree had a hole. -They were just branches of a small tree .
Compound noun	2	-The boy had a frog and a dog. - So the boy found a family of a frog and its children.
Prepositional phrase	24	-The frog was not in the jar . -He looked for the frog . -He searched [for the frog] [in his shoes], [outside the window] and he searched [for the frog] [in the forest]. -His dog was playing with the beehive . -Bees came out from the beehive while the boy was checking in the big tree -The boy was chased by an owl -Then the boy climbed on the stone -They were just branches of a small tree -Then he was carried by the moose - When he wanted to get off the moose he failed -They fell on the ground -He fell in the water -So there was a tree, a tree which fell in the river -He climbed over it to go to the other side -So the boy found a family, a family of a frog and its children -He found that one of the frogs was his frog -One of those frogs were one of his frogs
Modifiers		
Adverb	0	
Advanced modifier	0	
Nouns		
Pluralized noun	3	-The bees started chasing the dog -He found that one of the frogs was his frog -He found that one of the frogs was his frog
Possessive pronoun	0	
Verbs		
Auxiliary verb + main verb	2	-His dog was playing with the beehive.

		-While the boy was checking in the big tree.
Copula 'be' verb + ...	6	-The frog was not in the jar.
		-He thought it was his dog.
		-There was a moose.
		-So there was a tree.
		-He found that one of the frogs was his frog.
		-He thought ... they were just branches of a small tree.
Irregular past tense verb	9	-So after he woke up he found the frog was not in the jar.
		-He thought it was his dog who took the frog
		-So he told his dog not to do that.
		-So when he got near he found a beehive.
		-So after the beehive fell down bees came out from the beehive.
		-The moose kept on running.
Regular past tense verb	10	-Once upon a time there lived a boy.
1.		-One day he decided to have a nap.
2.		-He didn't close the jar which used to keep the frog in.
3.		-He looked for the frog ...
4.		-He searched for the frog ...
5.		-The bees started chasing the dog.
		-Then the boy climbed on the stone.
		-When he wanted to get off the moose he failed .
		-He climbed over it ...
Tier-two verb	0	
Compound verb	0	

Sample 2: Retelling of the picture book "Frog where are you?" (Mayer, 1962) followed by NAP test scores

I eat with my dog. I eat with my ... [some interruptions] Chisomo eats with his dog poppy at his bedroom. Chisomo sleeps ... at his bedroom with his dog too. When he wakes up he wakes up with his dog too. He goes out with his dog too. He carries his dog on his laps. Chisomo wears a black dress. Sometimes her dog can stand on the window with him. He goes with his dog to hunt

to the forest. He saws a swarm of bees and their nest in the tree. His dog tries to hunt – to bark to the swam [sic] and the nest. The swarm of bees tries to chase Chisomo’s dog. Chisomo runs away and his dog too. They ... Chisomo saws a bird and he is standing on the hill. The bird carries Chisomo and a donkey carries Chisomo and throw him and his dog in the water. Chisomo and his dog he is swimming – Chisomo is swimming with his dog on his head. He is getting out of the water through a tree got cut – to get out of the water with his dog. He sleeps on the tree – he sat on the tree looking at frogs. He waves the frogs – the frogs are sitting on the tree.

Coder: Researcher	Child’s Age: 12	Total Frequency: 38
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NAP Items	Frequency	Details
Sentence Structure	Say what	Examples
Compound sentence	0	
Complex sentence	2	-When he wakes up he wakes up with his dog too. - He goes with his dog to hunt to the forest.
Negative sentence	0	
Interrogative sentence	0	
Phrase Structure		
Elaborated noun phrase	7	-I eat with my dog . -Chisomo eats with his dog poppy at his bedroom . -He carries his dog on his laps . -Chisomo wears a black dress . -He saws a swarm of bees and their nest in the tree. - Chisomo is swimming with his dog on his head .
Compound noun	4	-He saws a swarm of bees and their nest in the tree. -His dog tries to hunt ... to bark to the swarm and the nest . -A donkey carries Chisomo and throw him and his dog in the water. - Chisomo and his dog he is swimming.
Prepositional phrase	17	-I eat with my dog . -Chisomo eats with his dog poppy at his bedroom . -He carries his dog on his laps . -Sometimes her dog can stand [on the window] [with him]. -He goes with his dog to hunt to the forest . -He saws a swam of bees and their nest in the tree .

		<p>-His dog tries to hunt – to bark to the swam and the nest.</p> <p>-They ... Chisomo saws a bird and he is standing on the hill.</p> <p>-A donkey carries Chisomo and throw him and his dog in the water.</p> <p>-Chisomo is swimming with his dog on his head.</p> <p>-He is getting [out of the water] [through a tree] got cut.</p> <p>-He sleeps on the tree – he sat on the tree looking at frogs.</p>
Modifiers		
Adverb	0	
Advanced modifier	0	The frog was in the filthy water.
Nouns		
Pluralized noun	3	<p>-He carries his dog on his laps.</p> <p>-He saws a swarm of bees and their nest in the tree.</p> <p>-He sat on the tree looking at frogs.</p>
Possessive pronoun	1	- The swarm of bees tries to chase Chisomo's dog .
Tier-two noun	0	
Verbs		
Auxiliary verb + main verb	4	<p>-Chisomo saws a bird and he is standing on the hill.</p> <p>-Chisomo is swimming with his dog on his head.</p> <p>-He is getting out of the water through a tree got cut ...</p> <p>-The frogs are sitting on the tree.</p>
Copula 'be' verb + ...	0	
Irregular past tense verb	0	
Regular past tense verb	0	
Tier-two verb	0	
Compound verb	0	

Appendix 8

The mole and the rocket

There is a big pile of sand, an upside-down red bucket and a spade on the beach. Suddenly, the bucket shakes and underneath it a small sand-pile appears. The pile grows bigger and bigger, pushing the bucket, higher and higher. Then all of a sudden the bucket falls down the side of the sand pile. Hop. Hop. Hop. It trips over the spade, flips on its side, and then rolls along the beach. As the bucket stops, out pops a little mole! The little mole shows little concern for how he got on the beach; he is too interested in a small orange ball lying on the ground in front of him. The mole walks over to the orange ball and flicks it with his finger. The ball rolls, and rolls, and rolls, and the mole runs after it. As soon as the ball stops, the mole takes it and plays with it; he throws it up and down, up and down. While throwing the ball something on a small hill catches the little mole's eye, it's a rocket!

On tip-toe the mole walks towards and around the rocket and he studies it very carefully. With his hand over his mouth considering what he has found, the mole slowly walks to the front of the rocket and looks inside, he then checks his height with his hand, to see if he will fit, and seeing that it's okay, he throws the ball into the rocket and climbs inside. From inside the rocket, the mole pokes his head out and pushes one of the yellow buttons on the outside of the body of the rocket. The top of the rocket immediately starts to beep. Beep. Beep. Beep. Beep. The mole pushes another yellow button. This time the rocket starts to rattle and shake. Oh no, it's taking off! The naughty mole hides deep inside the rocket. The rocket shoots into the sky. It flies up high away from the beach and over all the big buildings, higher it flies, higher into the clouds. The little mole pokes his head out and laughs with joy. After a short time the engine stops, the rocket shooting out two last puffs of smoke and the little mole screams! He then hides deep inside the rocket as it falls. Bam! The rocket crashes onto a tiny island. The island is covered with many different shells of all shapes and sizes, and parts of the rocket are scattered everywhere into the sea around the island.

The little mole can no longer be seen on the island where the rocket crashed. A shell starts to move. It is the mole! He just has a big round shell on his head. He feels the top of the shell takes it off and places it on the ground. He then looks around and sees a big conch shell, a home for

crabs. The mole taps on the shell, looks inside, and whistles, Yoo-hoo, to see if anyone is inside. Yoo-hoo, replies a voice from inside the conch. This surprises the mole, so much that he steps back onto the shell he just put down and slides all the way to the bottom of the island into the sea. The poor mole quickly swims back onto the island and looks around. He doesn't know where the other yoo-hoo came from. He places his hands on his head and runs around the shore of the island shouting, Yoo-hoo! Yoo-hoo! He even runs twice around the island, but there is still no reply. This makes the mole sad and he sits down with his hands on the side of his face. He starts to cry. While crying he sees the orange ball, the one he played with on the beach, but this time he just picks it up and drops it, just too sad to play. This makes him cry even more and he covers his face with his hands to weep.

While the mole is crying, a giant crab swims up, walks onto the beach, and claps one of its big pincers. The mole not seeing the crab gets a huge fright. He shouts out, Waaa! And runs away. The mole is so scared that he runs backwards, back up the island, and falls straight into a giant hermit crab shell. The shell flips over and the poor mole is left running around the island with the big shell right on top of him, but because the mole is inside the shell it looks like the shell is moving. After a few metres the mole stops and hides under the shell. The crab then appears over a small hill and he is pushing a big oyster shell. He opens it and inside is a giant shiny pearl. It is a gift for the mole. The mole throws off his shell, picks up the pearl and carefully looks at it, it sparkles beautifully in the sun. The mole lifts his finger, telling the crab to wait, and runs off; he then comes back with the little orange ball. It is a gift for the crab. The crab takes the ball and starts to play with it. Like the mole, the crab throws it into the air; he throws it up and down, up and down. The two friends laugh happily and skip down the island, hand in pincer. At the bottom of the island they stop into the water; the mole shows the crab that he cannot swim. The crab sees something floating in the sea and points it out to the mole. With his finger, the mole points to show the crab a piece of the rocket. He runs and picks up a metal ring. He then puts it down and walks over to a giant spring, also a part of the rocket. He brings it back and puts it on top of the ring. The crab seeing this also finds a part, he picks the pointy top of the rocket up from the sea, with his pincer, and places it on the pile of parts. Then the little mole runs to the edge of the beach, with his finger the mole points for the crab to come. Look, the mole points down into the sea and shrugs his shoulders. Other parts of the rocket must be in the sea. Yoh! Says the crab, as he looks far across the water, he sees what he thinks is another part of the rocket. Both creatures

look out with their hands across their heads. The crab swims out and gets the part. Just before the crab gets to the beach the little mole reaches out and grabs his friend's pincer and helps his friend pull the part ashore, by pulling, and pulling, and pulling. The little mole pulls so hard that the crab loses his grip on the part and is sent flying high over the mole's head. It's not a rocket part. The mole walks forward and looks at it. It's not a part from the rocket. It's a giant glass bottle!

The bottle is mostly underwater; it is lying on its side, with the neck of the bottle poking out above the sea, and most of the bottle beneath the water. The mole looks inside, and then dives down the neck of the bottle and crawls half way to the bottom. The bottom of the bottle is deep in the water and three little fish swim up to it. The mole sees the fish and taps the bottom of the bottle. On the other side of the glass, the three fish tap. Oops! The mole accidentally slides down to the bottom of the bottle, falling on his bum and this fall causes the bottle to sit up. Because the bottle is straight up, the mole can now stand and he watches how the three fish swim. The three fish swim around and then they swim through a piece of the rocket! While the mole has been looking at the fish, the bottle has slowly moved away from the bank and is now floating in the sea. The crab jumps into the water. Point. Point. Point. The mole points at the rocket part that he saw. The crab swims over to collect it. The mole is so happy, he jumps and claps inside the bottle. The crab swims, pushes the part onto the beach, picks it up and places it safely on the sand. Then he looks back at his friend. The mole has drifted further from the beach and is now floating in the middle of the sea!

From inside the bottle the mole can see many sea creatures. He sees a big jelly fish, a star fish, and two angel fish. They all swim up to the bottle. While they surround the bottle more creatures want to see what is happening and five purple fish and two sea horses also swim up to see the mole. The mole points at all the rocket parts on the sea floor. There are many, many parts scattered all along the floor. The five fish work together and collect one big part, the star fish collects a part and a sea urchin, which is following the star fish, collects four small parts. The two angel fish also each collect a part. All the sea creatures are helping the little mole collect the rocket parts. While his new friends collect all the parts, the poor little mole in the bottle, is shaken from side to side by the strong waves and wind. The sea creatures continue to collect all the other pieces of the rocket from the sea bed and throw them onto the island. While all the sea

creatures do this, the poor mole is still being shaken from side to side. The waves lift the poor mole, up and down, up and down, up and down. The strong waves carry him all the way back to the beach, where the bottle is thrown onto a rock. The bottle, with the poor mole still inside, breaks into many, many pieces and the poor mole falls, back first, onto the ground. When he gets up, he sees a big wave about to come crashing down but the crab quickly reaches out and pulls his friend out of the way of the wave. Crash! The wave crashes onto the beach. Look, the crab shows the mole with his pincer; all the parts are on the beach. The mole laughs, claps, and jumps for joy.

The mole and the crab start putting the rocket back together but they realise a piece is missing. The top piece is missing, points the mole. The little mole and the crab look around. Where could it be? What's this? The mole has found some big footprints. The mole sticks his two fingers in his mouth and whistles loudly. The mole points at the footprints to show the crab. The crab walks over and studies the footprints. The mole and the crab follow the footprints up the hill and at the top of the hill they look over. Jaaa! They get a fright and duck down, out of sight. It's a big crocodile. The mole is very scared but he lifts himself up, very slowly, to take another look. He is so scared the three little hairs on his head shake, as he looks up. The crab looks up too. Then, the crab and the mole start laughing. A little bird is bouncing on the crocodile's nose; it bounces right down to the tail of the crocodile's body. It's not a real crocodile. It's a blow-up crocodile! The mole and the crab bounce on the crocodile too. Up and down, up and down, up and down, they bounce and laugh on the crocodile's back. The mole bounces up to the crocodile's head, does a flip off its head and lands on the sand. The mole then bounces inside the crocodile's mouth. Bounce. Bounce. Bounce. The crab is at the crocodile's tail. He is now playing with the blow up crocodile's air plug. The crab pulls hard on the plug, he pulls, and pulls, and then he pulls it out! Air shoots out the hole and blows the crab away. All the air in the blow up crocodile escapes and the crocodile shrinks. Poor mole is still inside the mouth and the crocodile's deflated jaw falls onto him. The mole crawls out of the crocodile's mouth backwards, and hops across the crocodile, all the way to the tail. Puff! The last bit of air escapes as the mole lands on the tail. He flicks the air plug which waggles back and forth. Next to the crocodile are a beach bag and a sun hat.

What is the crab doing now? He's busy playing with a bucket of water. The crab swings from side to side, rocking the bucket, then it falls over and all the water runs out, and in the water there are some fish. The crab wasn't playing, he was saving the fish. What is the mole doing? He walks up to a big hat. He lifts the one side of the hat and three butterflies fly out. The mole waves goodbye to the butterflies. The mole saved the butterflies. Then the mole jumps up onto the top of the big striped beach bag and looks inside, he then tries to pull the bag down, by rocking back and forth. The crab helps his friend by walking to the opposite end of the bag and picking up the side, while the mole pulls down on the other end. The bag falls over and many shells fall out. Wait three shells are moving! No, they are not shells, they are turtles. The mole and the crab saved the three turtles. The mole waves goodbye to the turtles. The mole and the crab saved the animals. The mole looks at all the shells and he quickly runs over to one shell and picks it up. It's not a shell; it's the missing part of the rocket!

What's that noise coming from the sea? The mole and the crab turn to look, it's a man! An angry fisherman is swimming in the water towards them. Quickly, the mole drags the last part back to the rocket. Quickly, the crab helps push the part from the bottom. The fisherman is coming. He is wearing a red snorkel, and he is carrying a net in one hand and a scary looking fishing spear in the other. He stands up out of the sea and runs towards the two friends, while they quickly put the last part onto the top of the rocket. The fisherman is on the beach now, running with his flippers still on, towards the mole and the crab. He waves his arms in the air, still carrying the fishing spear and net. The mole is already safe inside the rocket and waves to the crab as it takes off. The crab waves back to the mole, as he holds his gift, the little orange ball. The rocket shoots into the sky. The crab walks down the hill just as the fisherman arrives. The mole is already high in the sky also holding his gift, the shiny white pearl. The fisherman stops and aims his spear. He shoots it at the rocket! But the mole is too far away, and the mole just hits the spear away. Nah, nah, nah, waves the mole and he flies off into the sky.

“This is the end of the story”.

The mole and the radio

A little mole lives in a forest with lots of trees, plants, flowers and even some mushrooms. One day, the mole pops his head out of his mole-hill, a home for moles, and looks left, right, then up.

Above him he sees three little birds. The first bird sings, then the second bird sings, then the third birds sings, and then they all sing as one in beautiful harmony. The mole puts his hands together and listens with great pleasure. Just then a bee buzzes by. It flies over to three blue flowers. The bee flies into the first flower, a sound like a bell comes out of the flower. Then it flies out and flies around and around the second flower, but it cannot go in because the flower is facing down. The stem of the second flower is bent over and the top of the flower is touching the ground. The little mole runs over and lifts the second flower, and the little bee flies inside. The same sound, only higher, comes out of the flower. It then flies out and into the third flower and again an even higher bell sound comes out of it. Finally it flies out and away. While holding the second flower the mole turns his head and sees three frogs sitting in a row next to a little pond. Croak, goes the first frog. Croak, goes the second frog. Croak goes the third frog. Each of them croaking a little higher than the last. Croak! They all croak together. Then again, the first frog croaks, the second croaks, the third croaks, and then they all croak together, as one making a musical tune. The mole hears the frogs croaking and tries to croak too. Croak, croak, croak, says the little mole, but he sounds funny and the three frogs all hold their bellies and laugh at the little mole.

Hoot-hoot. Hoot-hoot. The mole looks left, right, up and down. What is making that sound? He holds his hands up and looks at the sky; he then walks backwards following the sound, but there is a red box-like thing lying on the ground behind him and the poor mole trips over it and rolls and lands on his tummy. The mole gets up off the grass and studies the thing, he first touches it with his one finger then he taps it. It makes a hard metal sound. The mole bends down and lifts it upright. It is a red radio! It is bright red with black and white stripes going across its middle, and underneath the stripes are two white turning knobs, one knob on either side. Up! Springs the radio's aerial with a loud twanging sound. The poor mole gets such a fright he runs, jumps, and dives straight into his mole-hill. After a bit, the mole slowly sticks his head out, looks, and then picks up a ball of sand and throws it at the radio. The ball hits the radio and breaks. With a grass flower in his hands, the mole slides down his mole-hill and walks over to the radio. The mole taps on the top of the radio with the grass flower. The mole then walks closer to the radio and blows on the white turning knob. He then reaches out with his finger and touches it, he pulls back, putting his hand behind his back, but nothing happens. The mole then reaches over, grips the knob, and turns it. Yoh! The mole screams in fright as a voice on the radio speaks. The mole

runs back into his mole-hill. Slowly he lifts himself up and with his head resting on one of his hands he listens to the voice on the radio. The radio then starts to play music.

The mole walks over to the radio and while listening to the voice he puts his finger to his lips, he then takes it away and walks cautiously sideways up to the radio, to get closer. When he is close he sits down and listens. The three birds on top of the trees look down and listen. The bee in the second flower looks across and listens. The frogs in the pond put their fingers to their lips and listen. Even the rabbit pops his head out of his burrow and listens. All the animals listen to the music playing from the radio. With his finger the mole beckons the birds and points to the radio asking them to come over and play. The birds put their wings over their heads and shake their heads. The mole points at the radio and beckons the bee with his finger to come over and play. He then turns the knob with his hand, but the bee just stands up on top of the second blue flower and shakes his head, and jumps back down into the flower. The mole then beckons the frogs with his hand and points at the radio. The frogs put their fingers in their ears, close their eyes and look down. The rabbit folds his ears down and shakes his head. None of them like the music coming from the radio. To see the rabbit and better wave at his friends, the mole climbs up to the top of the radio, but to do this he steps on the left knob, and it starts making sharp, funny noises. Come, waves the mole again, but as he does this he slips off and lands on his back. The radio, however, changes its channel and a loud fast voice suddenly speaks. It's a sports commentator. Hearing this, the rabbit runs back into his hole. The voice is fast and loud, the man is reporting on a soccer game. The little mole moves up and down, then walks back and forth, and then claps his hands, as he listens to the game. He is excited, but then the mole turns away from the radio and says, Yoh! And he puts his hand over his face to hide his emotion. The little mole then turns back to listening to the radio as the commentator goes on speaking. The mole puts his hands in the air, the commentator speaks faster, and faster, the mole kicks a small pod out of the way, it's a goal! The mole jumps up and down and claps his hands, he then jumps over and does a one-arm hand stand in celebration.

The mole has been listening to the radio the whole day and now when it is night time, with the moon high in the sky, he is still playing with it. He lies on his tummy turning the two white knobs. Some funky music starts to play; the mole lies on his side and taps his foot to the beat. Suddenly the mole is hit on the head by a pod. The mole jumps up in surprise and looks around.

With their fingers to their lips the three frogs shush the mole, telling him to be quiet, and then they all dive, one at a time, into the pond. While under the water the first frog lifts his hand up and out of the pond and waves his finger at the mole, the second frog lifts his hand up and out of the pond and waves his finger at the mole, and then the third frog lifts his hand up and out of the pond and waves his finger at the mole. They then all lower their hands back into the water. The music is so loud it causes the tree branch that is holding the three little singing birds in their nest, to bounce up and down. Up and down the nest bounces. Up and down the poor birds bounce. Up and down. The three little birds flip the nest over and hide underneath, but it doesn't help and they still bounce, up and down. The rabbit is sleeping in his burrow, a home for rabbits. The music is so loud it causes sand from the top of the rabbit's burrow to fall on his head. This wakes the rabbit up. The rabbit presses his ears close to his head, to soften the music, but it is still too loud. He then takes two carrots that are lying in front of him and pushes them into his ears. Meanwhile, the little mole just continues to listen to the music and he dances around the radio, spinning around and around. He then jumps onto the radio and dances from the left side of the radio to the right, when he gets close to the end of the radio the mole grabs the aerial and swings around, and around, and around. Suddenly the aerial goes back down and the mole is sent spinning to the ground. The music suddenly also changes to the sound of a military marching band.

The music causes the leaves and cones from the trees to fall and the mushrooms to bounce up and down. The three blue flowers also bounce up and down, up and down, up and down to the music, they bounce so much so that all their stems are forced to bend over and one at a time the flowers slowly all face down. As the second flower bends over, the poor little bee is thrown out onto the ground. This angers the bee and he flies away. The three little birds, carrying their nest with their beaks, also fly away. The three frogs, carrying their pond on their heads, walk away. And the rabbit, pulling his bed and carrot, walks, stops, lifts his paw and waves his fist in anger, he then turns and also walks away. All the animals have left.

The sun comes up. It's a new day and the mole is busy exercising to instructions from the radio. Up, down. Up, down. The mole moves his arms. The mole yawns. He lies down on his back and starts to lift his legs. Left leg up, then down. Right leg up, then down. Left leg up, then down. Right leg up, then down. The exercise program finishes and while still lying down the mole leans

over and changes the station. The mole stretches and yawns again; he then puts his hands behind his head and crosses his one leg over the other. He falls asleep. Soft music plays from the radio. The mole continues to sleep. The music slows and stops and a funny whispering sound plays. This wakes the mole up. He turns the right knob, hears a strange noise then nothing happens. The mole puts his one hand over his mouth and scratches his head trying to think how to fix the radio. He then runs and fetches a striped blue and purple scarf from his home, he then runs around the radio, wrapping it with the scarf to warm it up and listens carefully but can only hear more strange noises. The mole runs back to his home and fetches a bottle full of red medicine and a tea spoon; he takes off the lid, pops off the cork, and pours some medicine into the teaspoon. The mole then pours a drop of medicine onto each of the radio's knobs. First more noise comes from the radio, then a woman singing opera loudly, then a man singing, then a noise again, then nothing. Eeyoh! The mole says while falling back onto his bum. He gets up and rubs the radio but it won't come on. The mole stands stiff and looks around. There are no sounds! He runs to the trees, looks up, and whistles for the three birds, but they have left. He runs over to the three frogs, but the pond and the frogs are gone. The mole croaks sadly. The mole runs over to the three blue flowers. He makes a sad buzzing sound and picks up the third flower, he looks inside, then let it go. The bee is gone. The mole buzzes sadly. The mole runs over to the rabbit's burrow and knocks at the opening. Yoo-hoo. Yoo-hoo. Says the mole, but no one is home. The rabbit is gone. The mole turns around and shouts with his hands around his mouth, Yoo-hoo! Yoo-hoo! Yoo-hoo! Yoo-hoo! But there is no reply. Everyone is gone.

The mole drops his head, slowly turns around, and walks back to the radio. He gives the radio a big kick and it falls over. The mole runs off and comes back with a spade. He starts to dig. He digs a hole and buries the radio. After the radio is covered with sand the mole stamps down the loose soil, but as he is stamping the radio, the aerial shoots up out of the ground. The mole grabs it and breaks it off, he then breaks it in half and throws it to the ground. The mole picks up his spade, puts it on his shoulder, and walks sadly to his mole-hill, where he sits down and starts to cry. What's that sound? Something is buzzing? The mole stops crying and looks up. It's the bee. It has come back to the flowers. The first flower and third flower are standing straight up, just like before and the second flower is bent down, also just like before. The bee flies into the first flower. Then it flies out and flies around and around the second flower, but it cannot go in because it is facing down. So just like before, the little mole runs over and lifts the second

flower, the little bee, with the flower held up, flies in. Then it flies out and into the third flower. While holding the second flower the mole turns his head and sees the three frogs sitting behind the little pond, just like before. Croak, goes the first frog. Croak, goes the second frog. Croak goes the third frog. Croak! They all croak together. The first frog croaks again, the second croaks, then the third croaks, and then they all croak together. The frogs croak and croak, just like before. The birds are also back in the tree. The first bird sings, then the second bird sings, then the third birds sings, and then they all sing together, just like before. The rabbit runs happily into his burrow, and then pops his head out of the entrance. All the animals have come back and are singing again. The little mole stands on his mole-hill and looks around. He waves at the frogs. He waves at the birds. Everything is like it was before. The mole then lies down with his hands behind his head in contentment and closes his eyes.

“This is the end of the story”.

Appendix 9

Mfuko ndi loketi (The mole and the rocket)

Pambali pa nyanja pali mulu wa ukulu wa mchenga, chidebe chofiira chotembenezidwa, ndi fosholo. Mwadzidzidzi, chidebe chija chikugwadera ndipo m'munsi mwake mwayamba kutuluka mchenga. Mulu uja wayamba kukulirakulira, nkuyamba kukankhira chidebe chija m'mwamba. Kenako chidebe chija chagwera m'mbali mwa mulu wa mchenga uja. Chayamba kunjanjanja nkudutsa pamwamba pa fosholo nkugwera m'mbali, chikugubuduzikira m'mbali mwanyanjamo. Chasiya kugubuduzika kuja, ndipo mwatuluka mfuko (kanyama kofananako pang'ono ndi mbewa). Mfuko uja sukuwoneka wokhuzidwa kwenikweni ndi m'mene wafikira pambali pa nyanjapo. Kenako uli ndi chidwi ndi kampira kachikaso komwe kali pansi koma patsogolo pake. Mfuko ukuyenda kulondola mpira wachikasu uja nawumenya ndi chala. Kampira kaja kayamba kugubuduka ndipo mfuko ukuwuthamangira. Mpira uja wayima. Mfuko wawutenga ndipo wayamba kuwuseweretsa, wayamba kuwuponya m'mwamba naunjanjitsa pansi kwakathawi. Uli kusewera mpira choncho, mfuko wawona kanthu kenakake pa kaphiri komwe kamupatsa chidwi. Kanthuko ndi kachida kaja komwe kamaponyedwa m'mwamba ngati bomba kukagwira ntchito kotchedwa *loketi* pa chingerezi.

Mfuko ukuyenda monyang'ama kulondola loketi ija ndikuyamba kuyenda moyizungulira nayiwunika mofatsirira. Wagwira kukamwa kwake ndipo ali ndi chidwi ndi chomwe wapezacho. Tsopano mfuko ukupita kutsogolo kwa loketiyo nayisuzumira mkati, ukuyeza kutalika kwake pogwiritsa ntchito dzanja kuti uwone ngati ungakwanemo. Wawona kuti utha kukwanamo, waponyeramo mpira uja nakweramo. Uli mkati mwa loketi muja, mfuko watulutsa mutu wake panja, kenaka wayamba kudina batani la chikasu lomwe lili kunja m'mbali mwa loketiyo. Nthawi yomweyi pamwamba payamba kulira kwambiri. Mfuko ukudinanso batani linanso la chikasu. Apa loketi yayamba kulira ndi kugwadera kwambiri. Ah! Ah! Yayamba kunyamuka. Mfuko uja wabisala mkati mwa loketi. Loketi yanyamuka nkuwulukira m'mwamba, kuchokera m'mbali mwa nyanjamo nkudutsa zinyumba zikuluzikulu zonse mpaka kulowa m'mitambo. Mfuko uja ukusuzumila panja, uku ukusekerera, nukondwera kwambiri. Posakhalitsa injini yasiya kugwira ntchito, ndipo loketi yatulutsa utsi otsiriza kawiri mwamphamvu, ndipo mfuko wayamba kukuwa kwambiri. Kenaka wangobisala pansi penipeni pamene loketi ikugwa. Pho! Loketi yagwera pa kachilumba pakati pa nyanja. Chilumbachi ndi chophimbidwa ndi zigoba

zosiyanasiyana, ndipo loketi yamwazikana zitsulo zina zagwera m'madzi zina zagwera m'mbali mwa chilumbacho.

Mfuko uja sungawonekenso pa chilumba pamene pagwera loketi paja. Chigoba chayamba kuyenda. Ndi mfuko uja! Kungoti wangophimbidwa ndi chigoba ku mutu kwake. Wamva kulemedwa pamutu pake, ndipo wachotsa chigoba chija nachiiika pansi. Wayamba kuyang'anayang'ana mbali zonse ndipo wawona chigoba chachikulu. Ndi nyumba ya nkhanu. Mfuko wamenya chigoba chija ndi nsonga ya chala chake, kenaka ukusuzumira mkati nkuyimba likweru, yoo-hoo, ukufuna kuti uwone ngati muli winawake mkatimo. Kenaka wamva mawu omuyankha oti Yoo-hoo! kuchokera m'chinyumba chija. Izi zamudabwitsa kwambiri mfuko moti mpaka wayamba kubwerera kuyenda cham'mbuyo kenaka waponda chigoba unachotsa m'mutu chija ndipo watelereka moti akutsetselekera m'mbali mwa chilumba chija mpaka kugwera m'nyanja. Mfuko wayamba kusambira kubwerera ku chilumba uku ukuyang'anayang'ana m'mbali.

Sukudziwa kuti mawu ena oti yoo-hoo aja achokera kuti. Waika manja ake pamutu nkuyamba kuthamanga kuzungulira m'mbali mwanyanja ukukuwa yoo-hoo! Yoo-hoo! Wachita kuzungulira kawiri konse koma sukumva kukuwa kwina. Izi zachititsa mfukowo kumva chisoni ndipo wakhala pansi nkugwira masaya ake. Wayamba kulira. Ukulira choncho, wawona mpira wachikaso, uja umaseweretsa m'mbali mwa nyanja muja. Koma nthawi ino wangowunyamula nkuwugwetseranso pansi, uli ndi chisoni kwambiri moti sungathenso kusewera. Izi zawuchititsa kuti ulire kwambiri. Watseka kumaso ndi manja nalira mosalekeza.

Mfuko ukulira choncho, kwangotukira nkhanu yayikulu ikusambira nivuuka kupita ku mtunda. Kenaka wagwira tinyanga ta mfuko uja. Pamenepo mfuko sunayiwone nkhanu ija, ndipo wagwidwa ndi mantha ochuluka. Wayamba kukuwa Waaa! Nkuthawira kutali. Mfuko uli ndi mantha kwambiri nuyamba kuthamanga chambuyo, kunka nukwera chilumba chija, kenaka wagwera chigoba chachikulu cha nkhanu. Chigoba chija changotembenuka nkumuveka kumutu. Mfuko ukuthamangabe ndi chigoba pamutu pake, koma chifukwa choti mfuko uli mkati mwa chigoba chija, zikuoneka ngati kuti ndi chigoba chimene chikuyenda. Utathamanga mtunda wochepe, mfuko uja wayima nkubisala mkati mwa chigoba chija. Kenaka nkhanu yatulukira pa kaphiri ikukankha chigoba cha chinyama chinachake chopezeka m'madzi. Yachitsegula, mkati mwake muli mwala onyezimira kwambiri wotchedwa ngale. Ndi mphatso ya mfuko.

Mfuko wataya chigoba chinali m'mutu chija nkutenga ngale ija nayiyang'ana ndi chidwi. Ikunyezimila kwambiri dzuwa likamawala. Mfuko waloza chala chake, ndipo nawuza nkhanu kuti idikire, wachokapo, kenaka wabwerera utanyamula mpira wofiira uja. Ndi mphatso ya nkhanu. Nkhanu yalandira mpira uja nayamba kusewera. Ikuwuponyera m'mwamba, maunjanjitsa pansi ngati momwe umachitira mfuko. Pa ubwenzi wawo awiriwo ayamba kuseka mokondwera nadumphira m'munsi mwa chilumbacho atagwirana manja. Afika m'munsimo, mfuko ukuwuzwa nkhanu kuti iye sangathe kusambira. Nkhanu yawona chinachake chikuyandama pa madzi ndipo namulozera mfuko. Mfuko ukumulozeranso nkhanu kachiduswa ka loketi. Mfuko ukuthamanga nukatenga chitsulo chozungulira. Wachiyika pansi nakatenga chitsulo cha *sipuling'i* chomwe ndichochokanso ku loketiyo. Wachibweretsa nachiyika pamwamba pa chitsulo chozungulira chija. Nkhanu poona izi, ndi zimanja zake, nayenso wakatenga kachiduswa kamodzi. Yatenga mbali yapamwamba yomwe ndi yosongoka kuchokera m'nyanja nayika pamulu wa zitsulo zina zija. Kenaka mfuko ukuthamangira m'mbali mwanjanja muja, ukukodola nkhanu kuti ibwere. Tawona! Mfuko ukuloza pansi pa nyanja nagwedeza phewa lake. Zitsulo zina za loketi ziyenera zikadali m'nyanjamu. Yoo! Yayankha nkhanu ikuyang'ana mkati mwa madzi, kenaka yawona chinachake chomwe ikuganiza kuti ndi chitsulo china cha loketi. Onse awiri akuyang'ana ndi chidwi manja awo ali pamutu. Nkhanu ikusambira nakatenga chitsulo chija. Isanafike kumtunda, mfuko wanyamuka kuthamangira mnzake uja namuthandiza kukokera kumtunda chitsulo wanyamula chija. Akukoka mwakhama ndithu. Mfuko ukukoka ndi mphamvu kwambiri mpaka chitsulo chija champulumuka mnzake uja. Nkhanu yadumpha m'mwamba nkudutsa pamutu pa mfuko uja. Sichitsulo cha loketi. Mfuko wayamba kuyenda nkuchiyandikira nachiyang'ana, wazindikira kuti sichitsulo cha loketi. Ndichibotolo chabe cha galasi.

Chibotolocho chili pansi pa madzi ndipo chakhala mopendeka, khosi la botololo likuonekera panja ndipo mbali yayikulu ili pansi pa madzi. Mfuko ukusuzumira mkati, nkulidumphira botololo mkhosi mwake ndipo nakhala pakatikati pa botololo. Mbali ya pansi penipeni ya botolo ili pansi pa madzi ndipo nsomba zitatatu zikusambira kutsatira botololo. Mfuko wawona nsomba zija nagogoda kungsi kwa botololo. Nsombanso zikugogodanso mbali ina ya botololo. Ah! Mwatsoka mfuko ukutsetserekerwa m'munsi mwa botololo nkumenyetsa matako ake pansi. Izi zachititsa kuti botololo liyime chowongoka.

Tsopano poti botolo lakhala choyima, zachititsa mfuko kuti uyime nkuyamba kuwonera m'mene nsomba zitatu zija zikusambirira. Nsomba zija zikusambira mozungulira botololo ndipo zayamba kulondola kachiduswa ka loketi. Pamene mfuko unali ndi chidwi kuyang'ana nsomba zija, botolo inali likusuntha kuchoka m'mbali mwanyanja nkuyamba kuyandama pakati pa nyanjapo. Nkhanu yadumphira m'madzi. Kenaka mfuko wayamba kuloza kachiduswa ka loketi kamene waona. Nkhanu ikusambira kuti ikachitenge ndipo mfuko wakondwera kwambiri, ukudumpha nagwera mkati wa chibotolocho. Nkhanu ikusambira nikankha chiduswa chija kupita nacho kumtunda, yachinyamula nkuchikhazika mosamala pa mchenga, kenaka ikumuyang'ana mnzake uja. Apa nkuti mfuko watengedwa ndi madzi ndipo ukuyandama mu botolo muja pakati pa nyanja!

Uli mkati mwa botolo, mfuko ukuwona nsomba zamitundu yosiyanasiyana, ndipo nsombazo zikusambira kulondola botololo. Nsomba ndi zodabwa ndipo zikubwera kuti nazo zimuone mfukoyo. Mfuko ukuzilozera nsombazo zitsulo zonse za loketi zomwe zili pansi pa madzi zija. Pali ziduswa zambiri zedi ndipo zangomwazikana pansi pa nyanjapo. Nsomba zisanu zikuthandizana kunyamula chitsulo chachikulu chimodzi, ndipo nsomba zina zija zikunyamulanso zitsulo zotsalazo. Zinyama zonse za m'madzizi zikuthandiza mfuko kuti utolere zitsulo za loketizo.

Pamene anzake atsopanowa ali kuthandiza kutolera ziduswazo, mfuko ukumenyetseka m'botolo muja kamba ka mafunde ndi mphepo yamphamvu yomwe ili pa nyanjapo. Koma nsombazo zili kalikiliki kutolera ziduswa zonse zotsala zija nkuziponyera ku mtunda. Pamene nsomba zili kutero, mfuko ukupitilizabe kumenyeseka ndi mafunde mu botolo muja. Mafunde akunyamulila mfuko pansi ndi m'mwamba kwa kanthawi, kenaka mafunde amuponyera mfuko uja kumtunda pamodzi ndi botolo ndipo botololo lafikira pa mwala. Botolo lija lasweka ndipo langosanduka tiziduswa tokhatokha, kenaka mfuko wagwera pansi. Pamene mfuko ukudzuka wawona mafunde atatsala pang'ono kuti amuwombe, pamenepo nkhanu ikuthamanga namukoka mnzake uja. Phwa! Mafunde aja angomenya kumtunda. Tawona! Nkhanu ikumusonyeza mfuko ziduswa zonse za loketi zomwe zayalidwa pa mchenga, ndipo mfuko wasekerera, kuwomba m'manja, nadumpha mokondwera.

Tsopano mfuko ndi nkhanu ayamba kulumikiza loketi ija koma azindikira kuti chitsulo chimodzi palibepo. Mfuko wadziwa kuti ndi chitsulo cha mbali ya pamwamba. Ndipo awiriwo ayamba kuyang'anayang'ana. Kodi chingakhale chili kuti?

Kodi ichi ndi chiyani? Mfuko wapeza malo ena odindidwa ndi phazi. Mfuko wayika zala zake ziwiri mkamwa nayimba likhweru mokweza. Ukumulozera nkhanu zidindo zija. Nkhanu yaziyandikira zidindozi nayamba kuziwunika ndi chidwi. Kenaka wayamba kutsatira mapazi aja omwe akulondola ku phiri. Tsopano afika pa phiri ndipo ayamba kuyang'anayang'ana m'mbali. Eish! Onse agwidwa ndi mantha ndipo agwera pansi nabisala osawonekanso. Ndiching'ona chachikulu. Mfuko uli ndi mantha kwambiri komabe ukudzuka pang'onopang'ono kuti uwonenso. Uli ndi mantha kwambiri moti tsitsi lake layamba kuyendayenda pamene akuyang'ana. Nkhanunso yayamba kuyang'ana. Tsopano awiriwo ayamba kuseka. Kenaka awona mbalame ikudumphadumphpa pa mphuno ya ng'ona ija ikudumphadumphpa mpaka ku mchira wang'onayo. Kukhala ngati sing'ona yeniyeni! Ndi choseweretsa chabe chochita kupopa ndi mpweya. Mfuko ndi nkhanu ija nawo adumphiranso pa ching'ona chija. Ayamba kudumphadumphpa ndi kusewera nayamba kuseka pa msana pa ng'ona ija. Mfuko ukudumphpa mpaka kufika kumutu wa ng'onayo nayitembenuza mutu nkujowera pa mchenga. Tsopano mfuko uja walowa mkamwa mwa ng'onayo. Nayambanso kusewera mkamwa muja nthawi imeneyi nkuti nkhanu ili ku mchira wa ng'onayo ikulimbana ndi kotsekera mpweya ka ng'onayo. Nkhanu inalimbana ndi kachitsekeleroko nkuyamba kukakoka ndi mphamvu mpaka kotsekerako kanyotsoka. Mpweya wamphamvu ukutuluka nkukankhira nkhanu ija kutali. Mpweya wonse unali m'ng'onayo watulukamo ndipo ng'onayo yaphwa. Koma pamenepa nkuti mfuko uja udakali mkamwa muja mpaka msagwada zang'onayo zawuvindikira mkati momwemo. Mfuko wayamba kukwawa Chambuyo ndikutulukira kukamwa kwa ng'onayo nkuyamba kujowa pamwamba pa ng'onayo mpaka kufika ku mchira Fuu! Mpweya wotsiliza ukutuluka pamene mfuko ukufika ku mchirako. Wayamba kugwiragwira kotsekera mpweya kaja komwe kali kugwederagwederera. Pambali pang'onayo pali chikwama ndi chipewa.

Kodi nkhanu ikutani panthawiyi? Yatanganidwa ndi kuseweretsa chidebe cha madzi. Nkhanu ikuzendewera chidebe kuchoka mbali ina kupitanso kwina akuseweretsa chidebecho. Kenako chidebe chija chagwera pansi madzi onse anali m'chidebecho atayikamo, koma m'madzi muja munali nsomba. Nkhanuyo sinali kusewera chabe koma imateteza nsomba zija. Nanga mfuko

ukutani? Ukupita kukatola chipewa chija. Ukuchitembenuza chipewa chija, mwauluka a gulugufe atatu. Mfuko ukuwakwezera dzanja mawapukusira agulugufewo. Kenaka mfuko wadumphira pamwamba pa chikwama chamizeremizerecho nayamba kuchisuzumira mkati. Wayamba kulimbana nacho chikwamacho kuti achigwetsere pansu. Nkhanu yabwera ndikuyamba kumuthandiza mnzakeyo. Yagwira mbali imodzi pamene mfuko wagwiranso mbali ina. Tsopano chikwama chija chagwa ndipo mukutuluka zigoba zambiri. Tadikira zigoba zitatu zikuyenda! Ayi, sizigoba, ndi afulu. Mfuko ndi nkhanu zinateteza afuluwo ndipo mfuko ukuzikwezera dzanja nkupukusa kuli kutsanzikana nawo afuluwo. Mfuko ndi nkhanu zateteza zinyamazo. Mfuko wayamba kuyang'ana zigobazo ndipo mwadzidzidzi wawona chigoba chinachake, wachithamangira nachitenga ndipo wazindikira kuti sichigoba koma chitsulo cha loketi chinasowa chija!

Kodi nanga phokoso likuchokera kunyanjalo ndi la chiyani? Onse awiri atembenuka kuti awone. Ndi munthu! Msodzi akuwoneka wawukali ndipo akusambira kulondola awiriwo. Mwamsangamsanga, mfuko watenga chitsulo chija nachikokera kuli loketi kuja, nkhanu yabweranso mwamsanga nkuyamba kumuthandiza mfuko kumangirira chitsulo chija. Pamenepo nkuti msozi uja akubwera. Wavala chinthu chomuthandizira kupuma akamasambira cha mtundu chofiira. Wanyamula ukonde kudzanja limodzi ndi mkondo wooneka moopsya kudzanja linalo. Tsopano wayimilira ndipo wayamba kuthamangira kumene kuli awiriwo amene panthawiyi akumangirirabe chitsulo chija.

Msodzi uja tsopano wafika pa mtunda paja atavalabe zovala zosambirira zija akuthamangira komwe kuli mfuko ndi nkhanu ija . Wapukusa mkono wake m'mwamba atanyamulabe ukonde ndi mkondo m'manja muja. Pamenepo nkuti mfuko walowa kale mu loketi ija kukonzekera kuti uzinyamuka. Mfuko wakweza mkono wake m'mwamba nkumutsanzika mnzake nkhanu. Nkhanu yakwezanso mkono wake itanyamula mpatso ya mpira wachikasu uja. Loketi ikulowerera m'mlengalenga. Pamene msodzi uja akufika nkuti nkhanu ikutsika phiri. Mfuko wanyamuka kalekale nawonso wanyamula mpatso ya ngale inamupatsa nkhanu ija. Msodzi wayima nkuponya mkondo wake kuti alase loketi ija koma mfuko uli patali kwambiri. Mfuko wangomenyera mkondo uja kumbali. Mfuko wangodzutsa mkono uku ukupitiliza ulendo wake.

“Nkhaniyi yathera pano”.

Mfuko ndi wayilesi (The mole and the radio)

Pali kanyama kenakake kotchedwa mfuko komwe kakukhala ku nkhalango yamitengo yambiri, maluwa, ndi bowa. Tsiku ili, uli m’nyumba yake, mfuko ukutulutsa mutu wake nasuzumira kumanzere, kumanja, kenaka m’mwamba. Kenaka wawona mbalame zitatu pamwamba pake. Mbalame yoyamba yayamba kuyimba, kenaka mbalame yachiwiri yaliranso yachitatunso yalira. Tsopano zonse zalirira pamodzi mwa nthetemya. Mfuko wagwira manja ake pamodzi numvetsera mosangalala. Posakhalitsa njuchi yadutsa nawulukira pamene pali maluwa ena ake atatu a mtundu a buluu. Njuchiyo yawulukira mu duwa loyamba koma mukumveka kulira ngati kwa belo, kenaka yatulukamo. Kenaka yawulukira nazungulira duwa lachiwiri koma ikulephera kulowa mkati chifukwa duwalo ndi lokhotera pansi. Tsinde la duwalo ndi lokhota ndipo nsonga yake ikugunda pansi.

Mfuko wathamangirako nawongola tsinde la duwa lachiwiri lija ndipo njuchi ija yawulukira mkati. Kwamvekanso kulira kwa belo kuja koma pano kwamvekerako mokweza kwambiri. Yatulukamo nawulukira duwa lachitatu ndipo kulira kwa belo kuja kukumvekabe. Pomaliza, njuchi ija yangotulukamo nawulukira kutali. Utagwirabe duwa lachiwiri lija, mfuko, watembenuza mutu wake ndipo wawona achule atatu atakhala m’mnzere moyandikira dziwe. Chule woyamba walira, wachiwiri waliranso, wachitatunso walira. Aliyense amalira kumuposa wotsilizira. Kenaka onse alirira pamodzi. Chule woyamba uja waliranso payekha, wachiwirinso nkuliranso, kenaka wachitatunso walira. Pomaliza onse aliriranso pamodzi ngati nyimbo. Mfuko wamva kulira kwa achule aja, nawonso ukuyesedzera malilidwe aja koma zikumveka moseketsa kwambiri. Achule aja agwira pamimba pawo nayamba kuwuseka mfuko uja.

Kenaka mfuko wamvanso kulira kwina kodabwitsa. HUU-HUU! Mfuko watembenukira kumanzere, kumanja, kumwamba, ndi pansi. Kodi ndi chiyani chikuchita phokoso lotere? Wangogwira manja ake kumwamba nayang’ana kumtambo. Wayamba kuyenda chobwerera m’mbuyo kutsalira phokoso lija ndipo wapeza chinthu chonga bokosi lofiira chili pansi kumbuyo kwake, mosadziwa mfuko wachiponda nagwa, nayamba kugubuduzika nkufikira chamimba. Kenako mfuko uja wadzuka pa udzu unagwera paja nayamba kuchiyang’anitsitsa chinthu chija mwachidwi. Poyamba unachigwira ndi chala chimodzi kenaka nkuchigogoda ndi chalacho. Chikumveka ngati ndichitsulo. Mfuko wawerama nachinyamulira m’mwamba. Ndi wayilesi yofiira! Ilinso ndi timizere tamitundu wakuda ndi woyera tomwe tadutsa pakati pa wayilesiyo.

Pansi pa timizereto pali tinthu tiwiri toyera koma tozungulira ndipo kalikonse kali mbali yake. Mfuko ukukweza mlongoti wa wayilesiyo kenako muwayilesi mwayamba kutuluka phokoso lochuluka. Mfuko wachita mantha kwambiri, kenaka wathamanga, nkudumphira m'mwamba, najowera m'nyumba yake ija.

Pangodutsa kanthawi, mfuko wangosuzumira panja pa nyumba yake ija, natenga chimpira cha dothi nagenda wayilesiyo. Chimpira chamenyadi wayilesi ija kenaka chimpiracho nkuphwanyika. Wanyamula duwa lake m'manja ndipo mfukowo ukutsetsereka kuchoka m'nyumba yake napita kuli wayilesiko. Kenaka wangogogoda pa mwamba pa wayilesipo ndi duwa lija. Tsopano wanyamuka nuyandikira wayilesiyo ndikuyamba kupeperera mpweya pa kopotokorera wayilesiyo. Kenaka watambasula chala chake nayigwira, mwamsangamsanga wachotsa dzanja lake nalibisa kumsana. Koma palibe chimene chachitika. Tsopano mfuko wayiyandikira wayilesiyo nayamba kupotokola tizida tozungulira tija. Yoh! Mfuko wadzidzimuka nagwidwanso ndi mantha pamene ukumva mawu kuchokera mu wayilesimo. Wanyamuka kuthamangira ku nyumba yake ija. Ukudzuka pang'onopang'ono uku utagoneka mutu wake pa dzanja limodzi nayamba kumvetsera mawu ochokera mu wayilesiyo. Posakhalitsa mu wayilesimo munayamba kumveka nyimbo.

Mfuko wayandikira wayilesi ija nayika chala chake pa milomo uku ukumvetsera wayilesiyo. Wachotsa chala chija nayamba kuyenda cham'mbali koma mosamala kuti uyandikire wayilesiyo. Tsopano wafika pafupi ndipo wakhala pansi nayamba kumvetsera. Mbalame zitanu zili m'mtengo zija zayang'ana pansi nayambanso kumvetsera wayilesiyo. Njuchi ili mu duwa lachiwiri lija nayonso yayamba kumvetsera. Achule ali pa dziwe aja ayika zala zawo pamilomo nayambanso kumvetsera. Kalulunso ali muuna kwake wangotulutsa mutu nayenso namvetsera. Nyama zonse zikumvetsera nyimbo zikuchokera mu wayilesimo. Ndi chala chake, mfuko wakodola mbalame zija ndikuzilozera wayilesi ndipo wazipempha kuti zibwere kuti zisewere. Mbalame zangoyika mapiko awo pamutu nagwedeza mitu yawo. Mfuko wakodolanso njuchi nayilozera wayilesi kuti zibwere zidzasewere. Kenaka mfuko wapotokora kachida chozungulira kaja ndi dzanja koma njuchi yangoyima pamwamba paduwa lachiwiri nagwedeza mutu wake, kenaka yadumphiranso mkati mwa duwalo. Mfuko wakodolanso achule nawalozela wayilesiyo. Achule angolowetsa zala zawo m'makutu, natseka maso awo, nayang'ana pansi. Kalulu

wangopindira makutu ake pansi nagwedeza mutu wake. Palibe akukondwera ndi nyimbo zikuchokera mu wayilesimo.

Kuti umuwone bwino kalulu uja komanso kuti uwapukusire bwino dzanja anzake aja nkuwapatsa moni, Mfuko wakwera pawayilesi paja koma ukutero waponda kopotokolera wayilesi kaja kakumanzere ndipo wayilesi yayamba kuchita phokoso lambiri komanso loseketsa. Bwera! mfuko ukuyitana kalulu uja koma ukutero unangoterereka nafikira mbuyo. Wayilesi ija yasintha tchanelo ndipo mukutuluka mawu oyankhulidwa mofulumira. Ndi wonenelera mpira. Pomva zimenezi, kalulu uja wangothamangira muuna mwake. Mawuwo ndi wofulumira komanso akumveka mokweza. Munthuyo akunenerera m'mene mpira wa miyendo ukuyendera.

Mfuko ukungoyendayenda pamalopo, ukumapita kutsogolo nkubwerenso, kenaka wawombera m'manja nkumvetsera mpirawo. Ndi wokondwera. Posakhalitsa mfuko watembenukira mbali ina ndipo wangoti Yoo! Kenaka wayika dzanja lake kumaso kuti anzakewo asawone m'mene akumvera. Mfuko uja watembenukiranso kuli wayilesi kuja napitiliza kumvera wonenerera mpira uja pamene akupitiliza. Mfuko wakweza zanja lake m'mwamba pamenepo nkuti wonenerera mpira uja akuyankhula mofulumira zedi. Kenaka mfuko uja wamenya kachitsa kanali mnjira mwake. Ndi chigoli!. Mfuko ukudumphadumpha nuwombera m'manja, wadumphanso nayima ndi dzanja limodzi kuwonetsa kusangalala.

Mfuko wakhala ukumvetsera wayilesi tsiku lonse mpaka pano kwada ndipo mwezi wawala koma mfuko ukusewerabe ndi wayilesiyo. Wagona cha mimba ndipo wayamba kupotokora tizida tawayilesi toyera tiwiri tija. Mwayamba kumvekanso nyimba zina. Tsopano mfuko wagona cham'mbali nayamba kumenyetsa mwendo wake pansi uku akutsatira nyimboyo. Mwadzidzidzi, mfuko wagendedwa kumutu ndi chiduswa. Wadumphira m'mwamba ali wodabwa nayamba kuyang'anayang'ana m'mbali. Ndi zala zawo pakamwa, achule awuza mfuko kuti ukhale chete ndipo onse adumphira mudziwe m'modzim'modzi. Ali m'madzi muja, chule woyamba wakweza dzanja lake panja pa dziwelo namupukusira mfukoyo, chule wachiwirinso anakweza chala chakenso namupukusira mfukoyo, chule wachitatunso wachitanso chimodzimodzi. Kenaka onse alowetsanso mitu yawo nalowa m'madzimo.

Phokoso la nyimbo lochokera mu wayilesimo likukulirakulira ndipo likuchititsa mtengo umene muli mbalame zija kuti ugwedere kwambiri. Zisa nazonso zayamba kugwedera ndi

kumenyetseka kwambiri. Mbalamenso zonse zikugwederwa ndi kumenyetsekanso kwambiri. Kenaka mbalame zija zatembenuza zisa nabisala mkati mwake, koma izi sizikuthandiza konse. Zidakali kumenyetsedwa. Kalulu akugona kuuna kwake koma phokoso ndi lokwera kwambiri ndipo likuchitisa mchenga umene uli m'mbali mwa unawo kugwera pa mutu wake. Izi zamudzutsa kalulu uja. Kalulu wafinyira makutu ake kumutu kuti mwina phokoso lija lichepeko koma ndi lokwerabe kwambiri. Kenaka watenga karoti muwiri amene ali patsogolo pake nachinyira m'makutu mwake. Padakali pano nkuti mfuko ukungomvetserabe nyimbozo uku ukuvina kuzungulirazungulira wayilesiyo kwanthawi yayitali. Wadumphira pa wayilesipo napitiliza kuvina kuja kuchoka kumanzere napita kumanja. Utapita kumapeto kwa wayilesiyo, mfuko wagwira mlongoti nayamba kuwuzendewera nkumauzungulira m'mbali. Mwatsoka, mlongoti wangolowa nkubwerera pansi, nthawi yomweyo mfuko waponyedwa ndikugwera pansi nuyamba kugudubuzika. Kenaka mu wayilesi muja munayamba kumveka nyimbo za asilikali akuyenda pelete.

Phokoso lija likuchititsa masamba ndi ziduswa zina kugwa kuchokera mu mtengo muja, ndi bowa kuyamba kunjanja. Maluwanso ayambanso kunjanjanjanja kutsatira nyimbo zija. Izi zikuchititsa kuti masinde a maluwa aja nawonso ayambe kupindikira pansi. Layamba limodzilimodzi kenaka maluwa onse aja ayang'ana pansi. Pamene duwa lachiwiri likupindikira pansi, njuchi imene inabisalamo ija ikuponyedwanso pansi. Izi zakwiyitsa njuchi ija ndipo yanyamuka nawulukira kutali. Mbalame zitatu zija zanyamula zitsa zawo ndi kuwulukiranso kutali. Achule atatu aja angosenza dziwe lawo pamutu, nachokapo. Ndipo kalulu akukankha kama wake, wayenda kenaka nayima, wanyamula dzanja lake nalipukusa mwaukali. Nayenso watembenuka, nachokapo. Nyama zonse zachoka.

Dzuwa likutuluka. Tsopano ndi tsiku lina. Mfuku uli kalikiliki kutsalira malangizo a masewera olimbitsa thupi omwe akuchokera mu wayilesimo. M'mwamba, pansi, m'mwamba, pansi. Mfuko ukunyamula mikono m'mwamba, pansi. Mfuko wayasamula kuonetsa kutopa. Tsopano wagona chambuyo nayamba kunyamula miyendo yake m'mwamba. Akunyamula mwendo wakumansere m'mwamba, pansi, kenaka kunyamulanso wakumanja m'mwamba kenakanso pansi. Pologalamu ya masewero olimbitsa thupi ija tsopano yatha. Uli chigonere choncho, mfuko wasintha tchanelo. Tsopano mfuko wayamba kuziwongola nayasamulanso. Wayika manja ake kunkhongo nalowanitsa miyendo yake. Wayamba kugona. Nyimbo zapansipansi zikumvekabe

kuchokera mu wayilesimo. Mfuko ukupitilizabe kugona kuja. Nyimbo zija zayamba kufooka kenaka ndikusiya. Mwayamba kumveka kaphokoso konong'ona koma koseketsa. Izi zawudzutsa mfuko uja. Wayamba kupotokora kachida kozungulira kaja ka mbali ya kudzanja ka wayilesiyo ndipo mukutuluka phokoso lachilendo kenaka simukumvekanso chilichonse. Mfuko wangogwira kukamwa ndi dzanja limodzi nakanda m'mutu wake kuyesa kuganizira chomwe angachite kuti akonze wayilesi ija. Kenaka ukuthamangira kunyumba yake kukatenga chinsalu cha mitundu ya buluu ndi pepo. Kenaka wayizungulira wayilesi ija nayikutira ndi nsalu ija kuti mwina itenthedwe koma palibe chomwe chikusintha. Chiphokoso chodabwitsa chija chikukulirabe. Mfuko wathamangiranso kunyumba yake natenga chibotolo chozaza ndi zimankhwala zofiira, natenganso sipuni yaying'ono. Watsegula botolo lija nkuthira mankhwala ena pa sipuni paja. Mfuko ukudonthesera mankhwala aja mu zopotokorera wayilesi zija. Poyamba mwayamba kutuluka phokoso lochulukirapo, kenaka mwayamba kumveka mzimayi akuyimba kenaka mukumvekanso mzibambo akuyimbanso ndipo phokoso lija linayambiranso. Pano simukumvekanso chilichonse. Eeyo! Mfuko wadandaula nagwera pansi. Tsopano wadzuka nayamba kupuputa wayilesiyo koma palibe chikusintha. Mfuko wayima mofooka nayamba kuyang'anayang'ana m'mbali. Sikukumvekanso chilichonse! Ukuthamangira mu mitengo nayang'ana m'mwamba nayimba muluzi kuyitana mbalame zija koma zachokamo kalekale. Wathamangiranso kunali achule atatu aja koma dziwe ndi achule omwe palibepo. Mfuko uli ndi chisoni nayamba kulira. Tsopano mfuko ukuthamangira kuli maluwa a buluu kuja. Wayamba kulira monga momwe zililira njuchi, watenga duwa lachitatu lija, nalisuzumira mkati mwake, wangoligwetsera pansi. Njuchi yachokamo. Mfuko ukupitiliza kulira ndi chisoni. Mfuko watembenekira kuuna wa kalulu uja nagogoda pa khomo. Yoo-hoo, yoo-hoo, wayitana mfuko, koma kulibe aliyense kuunako. Kalulunso wachoka. Watembenuka mfuko uja nayamba kukuwa uku utagwira kukamwa, yoo-hoo! Yoo-hoo! Yoo-hoo! Koma kulibe yankho lililonse. Aliyense wachoka.

Mfuko wagwetsa mutu wake pang'onopang'ono natembenekira kumbali nayamba kubwerera kuli wayilesi kuja. Wangoyimenya wayilesi ija ndi chibakera ndipo wayilesiyo yagwera pansi. Mfuko wathamangira kukatenga fosholo nayamba kukumba dzenje. Wakumba dzenje lalikulu kenaka watenga wayilesi ija nayikwilira. Wayikwilira wayilesiyo, tsopano mfuko wayamba kuchinyila dothi lija kenaka mlongoti watulukira panja. Wagwira mlongoti uja nauthyolathyola

nauponyera pansi. Mfuko watenga fosholo ija nayika paphewa nanyamuka kubwerera kunyumba kwake mwachisoni. Wakhala pansi nayamba kulira.

Kodi phokoso ili ndi la chiyani? Chinachake chikulira ngati njuchi? Mfuko wasiya kulira kuja nayang'ana m'mwamba. Ndi njuchi. Yabwerera mu maluwa muja. Duwa loyamba ndi lachitatu layima chowongoka ngati m'mene analili poyamba koma duwa lachiwiri ndi lokhotera pansi m'menenseo linalili poyamba. Njuchi ija yawulukira mu duwa loyamba, Kenaka yatuluka nayamba kuwuluka kuzungulira duwa lachiwiri koma ikulephera kulowa mkati chifukwa duwalo layang'ana pansi. Ngati m'mene unachitira poyamba, mfuko wathamangiranso nadzutsa duwa lija, ndipo duwa ndi njuchi onse anyamukira m'mwamba. Njuchi ija nawulukirano mkati. Kanaka njuchi ija yatulukamo nawulukira duwa lachitatu. Utagwirabe duwa lachiwiri lija, mfuko watembenuka ndipo wawona achule atatu aja atakhala m'mbali mwadziwe ngati m'mene anakhalira poyamba. Chule woyamba walira. Wachiwirinsu walira, kenaka wachitatunso nalira. Onse aliriranso pamodzi. Chule woyamba uja waliranso, wachiwirinsu walira, kenaka wachitatunso nkulira. Pomaliza onse aliriranso pamodzi. Achule aja akupitilizabe kulira ngati amachitira kale paja. Mbalame zija zabwereranso mu mtengo muja. Mbalame yoyamba yalira, yachiwiri yaliranso, kenaka yachitatu yaliranso. Kenaka zonse zaliriranso pamodzi ngati kale. Kalulu akuthamanganso mwamsangala nalowa muuna muja natulutsa mutu wake panja pa una uja nasuzumila. Nyama zonse zabwerera ndipo zayambiranso kuyimba. Mfuko uja wangoyima pa nyumba yake ija nayamba kuyang'anayang'ana mbali zonse. Wadzuka mkono wake namupukusira chule kenaka napukusiranso mbalame zija. Tsopano chilichonse chabwerera m'mene chinalili kale. Mfuko wangogona pansi manja ake ali kunkhongo mokhutitsidwa natseka maso ake.

“Nkhaniyi yathera pano”.

Appendix 10

Sample English Transcript

there was, the mole!
 that he was at the river,
 and he saw a bucket,
 it was shaking.
 and, when she go near it,
 it, it blows up
 so, he takes the bucket
 and start jumping up and down
 after that she saw a rocket,
 and, the rocket was saying: tititi-tititi-tititi,
 and after that, the: the tunnel also was hearing: tititi-tititi.
 and the, the, mo-mo-mole,
 he get into the water,
 and there was - the: seahorses, the angelfish,
 they helping placing the rocket.
 and after that they see a bird jumping at crocodile,
 they said: “that it is not a real crocodile”
 and they start jumping again, up and down up and down.
 and the They saw something moving.
 and they say that it is not the real ...
 and they ... the:y [uhuh and they...] they start walking
 and they... the: the mole, mole [uhuh, what else again?]
 eh, the animal saw the rocket
 and they he put his hand on the mouth.
 so, the ... the animals [they are what?]
 they are helping ... [what else can you remember?]
 They ...

Sample Chichewa Transcript (translation follows shortly after this story)

onani mulu wa mchenga
 from kamulu wa mchenga pali - pail ya madzi ya chikasu
 ndipo pail-yo yayamba kwayamba kugwedera
 pamene mfuko waona wathamangira
 ndipo ... ndipo mfuko pamene wafika
 pail ya madzi yasiya kugwedera
 ndipo mfuko waona mpira wa chikasu

ndipo wathamangira komwe kuli mpira
 nayamba kuse-nayamba kusewera nawo mpira
 nkumauponya mmwamba
 ndipo waona ... ndipo waona chigoba changati fulu koma si chafulu
 ndi cha ... ndi chitsulo chotchewa ...
 kenaka mfuko wakwera muchi- muchitsulocho
 ndiye pamene wafikano pa nyanja ... zitsulo zija...
 zamwazikana - zamwazikana mmadzi
 ndipo mfuko unamva kulira kwa wizulo
 anayang'ana uku ndi uku ndipo sanaone kanthu
 ndipo anazungulira nyanja manja ake ali pa mutu kokwana kawiri
 kenaka anadzaona nkhanu yaikulu ikutulukira ...
 kenaka onse awiri analowa mmadzi nayamba ...
 kuyang'ana zitsulo zija
 kenaka mfuko unamulozera - nkhanu kuti ikayang'ane -
 chinthu china chimene wachiona ngati chili mmadzi
 chimene iye amayesa ngati chinali chitsulo cha chinthu chija anakwera chija
 koma chinalino botolo ndipo mfuko unakwera unalowa m'botolo
 nudumphira mmadzi nayamba kufika kwakuya
 nsomba zambiri zinali ndi - zinali zodabwa
 kenaka zinayamba kuthamangira - zinayamba kuthamangira botolo
 pameneno mfuko amazilozera nsombazo
 kuti zizitola zitsulo zimene zinamwazikana zija
 pamadzi - mkati mwamadzi [She ended the story by saying "kwinako ndayiwala" meaning
 "she's forgotten the rest"].

(See a pile of sand, near the pile of sand there is a yellow bucket containing water. The pail starts shaking and the mole notices that the pail is shaking. He runs towards it. When he reaches there, the bucket stops shaking. Then the mole sees a yellow ball. He runs where the ball is situated and starts playing with it. He throws it up and down. Then he sees a shell which looks like a turtle's shell but it's not a turtle's shell. It's a ... it's a part of something calledthen the mole gets inside the part and when he reaches the sea ... the parts are scattered - scattered in the water. The mole hears a sound of a whistle. He looks both directions but he doesn't see anything. He moves around the sea twice with his hands on his head. He then sees a big crab coming ... the two of them go inside the sea and start ... looking for those parts. Then the mole shows - the crab to go and check - something which he has seen in the water which he thinks is part of the 'thing' which he had boarded but it is a bottle. The mole gets inside the bottle and jumps into the sea and

he reaches the deep part of the sea. A lot of fish are surprised – they are surprised and they start moving fast towards the bottle. Then the mole is directing the fish so that they pick the pieces that had scattered in the water. [She ended the story by saying “kwinako ndayiwala” meaning “she’s forgotten the rest”)]

Appendix 11

Scoring criteria for “The mole and the rocket” story

Characteristic	Explanation, example and score
Introduction	<p>-Child states that the mole was on the beach or the events at the beginning were taking place on the beach (with reference to the time of the setting: daytime)</p> <p>Other specific setting elements are stated at appropriate place in the story (e.g. “in the water or sea”, “on the hill”, “on the island”). Child introduces the main character by name and provides some description or detail. (5 marks)</p> <p>-Child provides setting i.e. “the mole was on the beach” but does not provide some detail about the setting (e.g., reference to the time of the setting: daytime). He also provides elements of specific setting e.g. “in the middle of the sea”, “he fell into the sea”. Child introduces the main character by name and provides some description or detail. (4 marks)</p> <p>-Child states that the mole was on the beach but does not provide reference to the time of the setting. Other specific setting elements are stated at appropriate place in the story (e.g. “in the water or sea”, “on the hill”, “on the island”) OR child mentions the mole and other characters with no detail or description OR child mentions the names of characters in Chichewa but with detail or description. (3 marks)</p> <p>-Child does not mention that the mole was on the beach (OR child provides setting but the wrong one) but provides some description of two or more specific elements of setting (e.g. “in the water or sea”, “on the hill”, “on the island”). (2 marks)</p> <p>-Child does not mention that the mole was on the beach but provides a description of one specific element of setting (e.g. “in the water or sea”, “on the hill”, “on the island”). (1 mark)</p> <p>-Child does not mention setting of the story nor does he mention specific elements of setting. (0 mark). (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)</p>
Character development	<p>-Child mentions the mole (the main character) and three or more supporting characters (crab, fish and other sea creatures in the story). Throughout story it is clear that child can discriminate between main and supporting characters (e.g., more description of and emphasis on main character(s). Child narrates in first person using character voice (e.g., the mole said “we should find the pieces of the rocket” or he said “I told you fish, we can’t play with you”). (5 marks)</p> <p>-Child mentions the mole (the main character) and three or more supporting characters (crab, fish and other sea creatures in the story). Throughout story it is clear that child can discriminate between main and supporting characters (e.g., more description of and emphasis on main character(s). But child does not narrate in first person using character voice. (4 marks)</p> <p>-Child mentions the mole (the main character) and three or more supporting characters (crab, fish and other sea creatures in the story). But the main character is not clearly distinguished from supporting characters, in other words, child does not describe the mole in more detail. OR child manages to provide details for both the main and supporting characters but the character’s names are</p>

	<p>in another language. (3 marks)</p> <p>-Child mentions the mole and two or more supporting characters but the characters are not developed. OR Child mentions the mole and two or more supporting characters but the characters are not developed in line with the story. (2 marks)</p> <p>-Child mentions the mole and/or 1 supporting character but the characters are not developed. OR Child mentions the mole and/or 1 supporting character but the characters are not developed in line with the story. OR Characters necessary for advancing the plot are not present. (1 mark)</p> <p>-Child tells a wrong story. (0 mark). (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)</p>
Mental states	<p>-Mental and emotional states of main and supporting characters are expressed when necessary for plot development and advancement. A variety of five or more mental and emotional state words are used (examples of mental state words: “decided”, “forgot”, “knew”, “thought”, “remember”; examples of emotional state words: “sad”, “happy”, “scared”, “angry”, “upset”). (5 marks)</p> <p>-Mental and emotional states of main and supporting characters are expressed when necessary for plot development and advancement. A variety of four mental and emotional state words are used. (4 marks)</p> <p>-A variety of 3 mental and emotional state words are used. (3 marks)</p> <p>-Child makes use of 2 mental and emotional state words. (2 marks)</p> <p>-Child makes use of 1 mental or emotional state word. (1 mark)</p> <p>-Child does not mention any mental or emotional state word. (0 mark)</p>
Referencing	<p>-Child provides necessary antecedents to pronouns and references are clear throughout story. (5 marks)</p> <p>-Child provides necessary antecedents to pronouns and references are clear throughout story except for 1 or 2 referencing errors. (4 marks)</p> <p>-Referents/antecedents are used inconsistently. Child makes 3 or 4 referencing errors. (3 marks)</p> <p>-Referents/antecedents are used inconsistently. Child makes 5 or 6 referencing errors. (2 marks)</p> <p>-Pronouns are used excessively OR inadequate use of pronouns. No verbal clarifiers are used. Child is unaware listener is confused. Child makes 7 or 8 referencing errors. (1 mark)</p> <p>-Child makes 9 or more referencing errors. (0 mark)</p>
Conflict resolution	<p>-Child mentions all the eight conflicts and resolutions (see a list of conflicts and resolutions below). (5 marks)</p> <p>-Child mentions 6 or 7 conflicts and resolutions. (4 marks)</p> <p>-Child mentions 4 or 5 conflicts and resolutions (3 marks)</p> <p>-Child mentions 2 or 3 conflicts and resolutions (2 marks)</p> <p>-Child mentions 1 conflict or resolution (1 mark)</p> <p>-Child does not mention any conflict or resolution (0 mark)</p>

<p>Cohesion</p>	<p>-Events follow a logical order. Critical events are included, while less emphasis is placed on minor events. Smooth transitions are provided between events i.e. child makes use of a variety of five or more transitional markers such as “suddenly”, “then”, “so”, “after that”, “later on”, “because”, “even though”. Child also makes use of a variety of five or more complex sentences (sentences containing subordinate clauses beginning with words such as ”while”, “when”, “who”, “which”, “where”, “what”, “how” e.g. “while he was working with the ball, he found a rocket” and also other complex sentences containing subordinate clauses that are not signaled by wh- words e.g. “he told the crab that they should make the rocket back”). (5 marks)</p> <p>-Events follow a logical order. Critical events are included, while less emphasis is placed on minor events. Child makes use of a variety of four transitional markers. AND/OR Child also makes use of a variety of four complex sentences containing subordinate clauses. (4 marks)</p> <p>-Events follow a logical order, excessive detail or emphasis provided on minor events leads the listener astray OR transitions to next event are unclear (child makes use of a variety of three transitional markers) OR child makes use of a variety of three complex sentences containing subordinate clauses OR minimal detail is given for critical events OR equal emphasis is placed on all events. (3 marks). Note: 3 marks may be awarded where child uses a variety of four or more transitional markers OR a variety of four or more complex sentences but provides minimal detail for critical events.</p> <p>-Events do not follow a logical order, excessive detail or emphasis provided on minor events leads the listener astray OR transitions to next event are unclear (child makes use of a variety of two transitional markers) OR child makes use of a variety of two complex sentences containing subordinate clauses (2 marks)</p> <p>-Events do not follow a logical order, transitions to next event are unclear (child makes use of one transitional marker) OR child makes use of one complex sentence containing a subordinate clause. (1 mark)</p> <p>-No use is made of smooth transitions. (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)</p>
<p>Conclusion</p>	<p>-Story is clearly wrapped up using general concluding statements such as “and they were together again happy as could be.” (5 marks)</p> <p>-Story is clearly wrapped up using general concluding statements such as “and they were together again happy as could be” but child does this without concluding a specific event i.e. that the mole went back home. (4 marks)</p> <p>-Specific event (specific event in line with the story) is concluded, but no general statement is made as to the conclusion of the whole story. (3 marks)</p> <p>-Specific event is not concluded, no general statement is made as to the conclusion of the whole story but at least child signals that it is the end of the narration. (2 marks)</p> <p>-Child stops narrating, and listener may need to ask if that is the end (also child stops narrating without concluding a specific event or events in line with the story). (1 mark)</p> <p>-Child concludes the story by stating wrong events. (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)</p>

Conflicts and resolutions in “The mole and the rocket”

1. “the rocket crashes on an isolated island” **OR** “the rocket breaks into pieces which scatter on the isolated island” **OR** “the rocket falls into water (sea or lake)”
2. “the mole makes friends with a crab and/or other sea animals” **OR** “the mole exchanges gifts with the crab”
3. “the mole points at the parts of the rocket in the sea which he cannot get himself because he cannot swim” **OR** “the mole fails to get the parts of the rocket in the sea because he cannot swim”
4. “the mole points at a bottle thinking that it was a part of the rocket” **OR** “the mole points at a bottle instead of the parts and ends up floating in the water while inside the bottle” **OR** “while inside the bottle he finds himself in the middle of the sea” **OR** “while inside the bottle the mole is lifted up and down by the strong waves” **OR** “the strong waves carry the mole back to the beach where the bottle is thrown onto a rock and breaks”
5. “while looking for the parts, they come across a play crocodile which they were afraid of at first”
6. “the crab and/or sea animals help the little mole to assemble the scattered parts of the rocket” **OR** “the crab and/or sea animals help the little mole to find the parts of the rocket or fix the rocket”
7. “the fisherman wants to kill the mole with his spear but fails”
8. “the mole goes back home”

Appendix 12

Scoring criteria for “The mole and the radio” story

Characteristic	Explanation, example and score
<p>Introduction</p>	<p>-Child states that the mole was in the forest or the events at the beginning were taking place in the forest (with reference to the time of the setting: daytime)</p> <p>Other specific setting elements are stated at appropriate place in the story (e.g. “the birds were in the nest”, “the three frogs jumped into the pond”, “the bee went inside the flower”). Child introduces the main character by name and provides some description or detail. (5 marks)</p> <p>-Child provides setting i.e. “the mole was in the forest” but does not provide some detail about the setting (e.g., reference to the time of the setting: daytime). He also provides elements of specific setting e.g. “he came out from his mole hill”, “the frogs were in the water”, “the rabbit went into his hole”. Child introduces the main character by name and provides some description or detail. (4 marks)</p> <p>-Child states that the mole was in the forest but does not provide reference to the time of the setting. Other specific setting elements are stated at appropriate place in the story (e.g. “he came out from his mole hill”, “the frogs were in the water”, “the rabbit went into his hole”) OR child mentions the mole and other characters with no detail or description OR child mentions the names of characters in Chichewa but with detail or description. (3 marks)</p> <p>-Child does not mention that the mole was in the forest (OR child provides setting but the wrong one) but provides some description of two or more specific elements of setting (e.g. “he came out from his mole hill”, “the frogs were in the water”, “the rabbit went into his hole”) (2 marks)</p> <p>-Child does not mention that the mole was in the forest but provides a description of one specific element of setting (e.g. “he came out from his mole hill”, “the frogs were in the water”, “the rabbit went into his hole”) (1 mark)</p> <p>-Child does not mention setting of the story nor does he mention specific elements of setting. (0 mark). (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)</p>
<p>Character development</p>	<p>-Child mentions the mole (the main character) and three or more supporting characters (birds, frogs, bee, rabbit).Throughout story it is clear that child can discriminate between main and supporting characters (e.g., more description of and emphasis on main character(s). Child narrates in first person using character voice (e.g., “Huh! That’s what I wanted I have my friends, I don’t want to have the radio again”). (5 marks)</p> <p>-Child mentions the mole (the main character) and three or more supporting characters (birds, frogs, bee, rabbit).Throughout story it is clear that child can discriminate between main and supporting characters (e.g., more description of</p>

	<p>and emphasis on main character(s). But child does not narrate in first person using character voice. (4 marks)</p> <p>-Child mentions the mole (the main character) and three or more supporting characters (birds, frogs, bee, rabbit). But the main character is not clearly distinguished from supporting characters, in other words, child does not describe the mole in more detail. OR child manages to provide details for both the main and supporting characters but the character's names are in another language. (3 marks)</p> <p>-Child mentions the mole and two or more supporting characters but the characters are not developed. OR Child mentions the mole and two or more supporting characters but the characters are not developed in line with the story. (2 marks)</p> <p>-Child mentions the mole and/or 1 supporting character but the characters are not developed. OR Child mentions the mole and/or 1 supporting character but the characters are not developed in line with the story. OR Characters necessary for advancing the plot are not present. (1 mark)</p> <p>-Child tells a wrong story. (0 mark). (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)</p>
Mental states	<p>-Mental and emotional states of main and supporting characters are expressed when necessary for plot development and advancement. A variety of five or more mental and emotional state words are used (examples of mental state words: "decided", "forgot", "knew", "thought", "remember"; examples of emotional state words: "sad", "happy", "scared", "angry", "upset"). (5 marks)</p> <p>-Mental and emotional states of main and supporting characters are expressed when necessary for plot development and advancement. A variety of four mental and emotional state words are used. (4 marks)</p> <p>-A variety of 3 mental and emotional state words are used. (3 marks)</p> <p>-Child makes use of 2 mental and emotional state words. (2 marks)</p> <p>-Child makes use of 1 mental or emotional state word. (1 mark)</p> <p>-Child does not mention any mental or emotional state word. (0 mark)</p>
Referencing	<p>-Child provides necessary antecedents to pronouns and references are clear throughout story. (5 marks)</p> <p>-Child provides necessary antecedents to pronouns and references are clear throughout story except for 1 or 2 referencing errors. (4 marks)</p> <p>-Referents/antecedents are used inconsistently. Child makes 3 or 4 referencing errors. (3 marks)</p> <p>-Referents/antecedents are used inconsistently. Child makes 5 or 6 referencing errors. (2 marks)</p>

	<p>-Pronouns are used excessively OR inadequate use of pronouns. No verbal clarifiers are used. Child is unaware listener is confused. Child makes 7 or 8 referencing errors. (1 mark)</p> <p>-Child makes 9 or more referencing errors. (0 mark)</p>
Conflict resolution	<p>-Child mentions all the eight conflicts and resolutions (see a list of conflicts and resolutions below). (5 marks)</p> <p>-Child mentions 6 or 7 conflicts and resolutions. (4 marks)</p> <p>-Child mentions 4 or 5 conflicts and resolutions (3 marks)</p> <p>-Child mentions 2 or 3 conflicts and resolutions (2 marks)</p> <p>-Child mentions 1 conflict or resolution (1 mark)</p> <p>-Child does not mention any conflict or resolution (0 mark)</p>
Cohesion	<p>-Events follow a logical order. Critical events are included, while less emphasis is placed on minor events. Smooth transitions are provided between events i.e. child makes use of a variety of five or more transitional markers such as “suddenly”, “then”, “so”, “after that”, “later on”, “because”, “even though”. Child also makes use of a variety of five or more complex sentences (sentences containing subordinate clauses beginning with words such as “while”, “when”, “who”, “which”, “where”, “what”, “how” e.g. “while he was working with the ball, he found a rocket” and also other complex sentences containing subordinate clauses that are not signalled by wh- words e.g. “he told the crab that they should make the rocket back”). (5 marks)</p> <p>-Events follow a logical order. Critical events are included, while less emphasis is placed on minor events. Child makes use of a variety of four transitional markers. AND/OR Child also makes use of a variety of four complex sentences containing subordinate clauses. (4 marks)</p> <p>-Events follow a logical order, excessive detail or emphasis provided on minor events leads the listener astray OR transitions to next event are unclear (child makes use of a variety of three transitional markers) OR child makes use of a variety of three complex sentences containing subordinate clauses OR minimal detail is given for critical events OR equal emphasis is placed on all events. (3 marks). Note: 3 marks may be awarded where child uses a variety of four or more transitional markers OR a variety of four or more complex sentences but provides minimal detail for critical events.</p> <p>-Events do not follow a logical order, excessive detail or emphasis provided on minor events leads the listener astray OR transitions to next event are unclear (child makes use of a variety of two transitional markers) OR child makes use of a variety of two complex sentences containing subordinate clauses (2 marks)</p> <p>-Events do not follow a logical order, transitions to next event are unclear (child makes use of one transitional marker) OR child makes use of one complex</p>

	<p>sentence containing a subordinate clause. (1 mark)</p> <p>- No use is made of smooth transitions. (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)</p>
<p>Conclusion</p>	<p>-Story is clearly wrapped up using general concluding statements such as “and they were together again happy as could be.” (5 marks)</p> <p>-Story is clearly wrapped up using general concluding statements such as “and they were together again happy as could be” but child does this without concluding a specific event i.e. all the animals that had moved away returned. (4 marks)</p> <p>-Specific event (specific event in line with the story) is concluded, but no general statement is made as to the conclusion of the whole story. (3 marks)</p> <p>-Specific event is not concluded, no general statement is made as to the conclusion of the whole story but at least child signals that it is the end of the narration. (2 marks)</p> <p>-Child stops narrating, and listener may need to ask if that is the end (also child stops narrating without concluding a specific event or events in line with the story). (1 mark)</p> <p>-Child concludes the story by stating wrong events. (See also notes that follow shortly after Table 3.11 on when to give a score of zero.)</p>

Conflicts and resolutions in “The mole and the radio”

1. “the radio becomes too loud, other animals cannot stand the noise” OR “the radio becomes too loud, other animals move away”
2. “the mole invites other animals to come and listen to the radio”
3. “the radio makes him weary as he listens to it endlessly (the whole day until night time and until the next day) and when he tries to sleep, the radio wakes him up” **OR** “(it was not easy to sleep as) he listened to the radio the whole day until night time and until the next day”
4. “the radio makes some strange noises and stops” **OR** “the batteries were off” **OR** “the radio got destroyed”
5. “the mole tries to pour some medicine into the radio’s knobs” **AND/OR** “the mole wraps a scarf around the radio”
6. “more noise comes from the radio then it stops completely”
7. “the mole buries the radio which had caused problems to other animals and himself eventually” **OR** “the mole buries the radio which had a problem as it could no longer produce any sound”
8. “all the animals that moved away return”

Appendix 13

Conflict Resolution in “Frog, where are you?” story (SALT Software, LLC¹¹¹)

Conflict	Resolution
1. A frog sneaks out of a jar and escapes through an open window	The frog is found
2. When the boy wakes up he notices that the frog is gone	The boy looks for the frog in his boot while the dog looks in the jar
3. The dog’s head gets stuck in the jar	The jar breaks off after the dog falls
4. The dog leans out of the window with the heavy jar stuck on his head and falls	The boy goes down to help the dog
5. The boy is mad at the dog	The dog licks the boy
6. The boy calls for the frog and hears no answer	The boy calls into a hole and the dog barks at a beehive looking further for the frog
7. A gopher bites the boy’s nose and yells at him	The boy leaves and calls into a different hole
8. The dog knocks down the beehive and the bees chase after him	The dog runs away
9. An owl comes out of the hole and scares the boy, knocking him out of the tree	The boy looks somewhere else by climbing onto a rock
10. The boy calls into the woods and needs something to hold onto on top of the rock	The boy grabs onto what seem to be tree branches
11. The branches are deer antlers	
12. The deer stands up and begins running with the boy on his head and the dog following	
13. The deer abruptly stops at the edge of a cliff and throws the boy and the dog over into the water	The boy and the dog emerge
14. The boy hears a noise and is not sure if it is the frog	The boy follows the sound and looks over a log
15. The boy’s frog had babies so it could not go home with the boy	The frog lets the boy have one of its babies

¹¹¹ www.saltsoftware.com/coursefiles/1502/NSS_FWAY_Rubric.pdf

Appendix 14

Ethical clearance from the University of KwaZulu-Natal



Research Office (Govan Mbeki Centre)
 Private Bag x54001
 DURBAN, 4000
 Tel No: +27 31 260 3587
 Fax No: +27 31 260 4609
 Ximbap@ukzn.ac.za

30 May 2012

Mrs Agness Hara 205514767
 School of Arts

Dear Mrs Hara

Protocol reference number: HSS/0246/012D
 Project title: Inference Making Abilities of Bilingual children

EXPEDITED APPROVAL

I wish to inform you that your application has been granted Full Approval through an expedited review process:

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

.....
 Professor Steven Collings (Chair)
 Humanities & Social Sciences Research Ethics Committee

cc Supervisor Professor Heike Tappe

Appendix 15**Letter requesting for permission to conduct a study at Kapita primary school**

Please accept her
to go ahead, its a welcome idea

R.O. Sengula
Education Committee Secretary

University of KwaZulu-Natal
Howard College
School of Arts
Durban, 4041
South Africa

The Head Teacher
Kapita Private School
P.O. Box 3002
Lilongwe 3
Malawi



Dear Sir/Madam,

Re: Permission to Conduct Research at your Institution

My name is Agness Hara. I am a doctoral student in Linguistics in the School of Arts at the University of KwaZulu-Natal, Durban, South Africa. I am doing research on the topic *Inference Making Abilities of Bilingual Children*. The objectives of the study are as follows:

- (a) To assess the effects of a monolingual education program as compared to a bilingual education program on children's inference skills.
- (b) To investigate whether children do have an advantage in recalling and inferring information from cartoon movies, when the movies present information only visually.

I write to seek approval from you to conduct my research at your institution. My research is targeting pupils and teachers at your school. The pupils will be required to do tasks at your premises such as viewing a cartoon film or listening to a story constructed from the cartoon film and answering comprehension questions. The teachers will be required to fill in a questionnaire that has questions related to the stated topic. In compliance to the ethical clearance guidelines of the University of KwaZulu-Natal, arrangements have been made that I obtain parental consent since the main subjects in this study are minors.

I therefore ask you to fill in the spaces below as an approval for conducting my study at your school. This approval is important as it will enable me to proceed with data collection.

I, CHRISSIE BANNA (full names of Head
Teacher in block letters) hereby approve that the researcher conducts her study at
KAPITA PRIVATE School.

Signature of Head Teacher B. Ch

Date and school's stamp



Yours faithfully,

Agness Hara (Mrs.)

Appendix 16

Letter requesting for permission to conduct a study at Mphungu primary school

University of KwaZulu-Natal
Howard College
School of Arts
Durban, 4041
South Africa

The Head Teacher
Mphungu L. E. A. School
P. O. Box 30017
Lilongwe 3
Malawi

Dear Madam,

Re: Permission to Conduct Research at your Institution

My name is Agness Hara. I am a doctoral student in Linguistics in the School of Arts at the University of KwaZulu-Natal, Durban, South Africa. I am doing research on the topic *Inference Making Abilities of Bilingual Children*. The objectives of the study are as follows:

- (a) To assess the effects of a monolingual education program as compared to a bilingual education program on children's inference skills.
- (b) To investigate whether children do have an advantage in recalling and inferring information from cartoon movies, when the movies present information only visually.

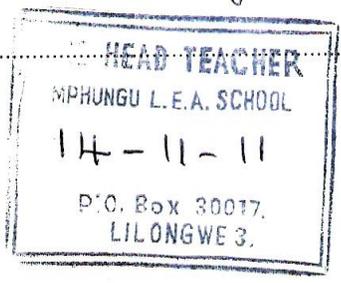
I write to seek approval from you to conduct my research at your institution. My research is targeting pupils and teachers at your school. The pupils will be required to do tasks at your premises such as viewing a cartoon film or listening to a story constructed from the cartoon film and answering comprehension questions. The teachers will be required to fill in a questionnaire that has questions related to the stated topic. In compliance to the ethical clearance guidelines of the University of KwaZulu-Natal, arrangements have been made that I obtain parental consent since the main subjects in this study are minors.

I therefore ask you to fill in the spaces below as an approval for conducting my study at your school. This approval is important as it will enable me to proceed with data collection.

I..... LINDA J. MHHANGO..... (full names of Head
Teacher in block letters) hereby approve that the researcher conducts her study at Mphungu
L. E. A. School.

Signature of Head Teacher..... L. Mhango.....

Date and school's stamp.....



Yours faithfully,

Agness Hara (Mrs.)

Appendix 17

Informed consent form in English for parents/guardians

My name is Agness Hara. I am studying for a Doctoral Degree in Linguistics offered in the Department of Linguistics at Howard College, University of KwaZulu-Natal in South Africa. I hereby ask you for permission to have your child/ward participate in the study that I am doing on the topic *Inference making abilities of multilingual children*. This study is targeting multilingual children attending a public school and a private school in Lilongwe, Malawi. The objectives of the study are as follows:

- (a) To assess the effects of a monolingual education program as compared to a multilingual education program on children's inference skills
- (b) To investigate whether children do have an advantage in recalling and inferring information from cartoon movies, when the movies present information only visually

Your child's/ward's contribution to this study will be in the form of story recalls and answers to comprehension questions. I will be grateful for your child's/ward's participation in this study as his/her contribution will help me to achieve the aims given above. If you have any questions concerning this research, you may contact me at 0882 204 921 or Mzuzu University, P/Bag 201, Luwingu, Mzuzu 2.

I, therefore, ask you to sign in the spaces below to confirm your child's/ward's participation.

I(full names of parent or guardian in block letters) hereby confirm that I understand the nature of the research project, and I consent my child's/ward's participation in the research project. I understand that my child or ward is allowed to withdraw from the project at any time, should I wish to. I confirm that the child's story recalls and answers to comprehension questions can be used in the final research report and other publications. I understand that these will be used anonymously.

Signature of parent/guardian.....

Date.....

Appendix 18

Informed consent form in Chichewa for parents/guardians

Chilolezo kuchokera kwa makolo kapena woyang'anira mwanayo

Dzina langa ndine Agness Hara. Ndikuchita maphunziro awukadaulo mu ziyankhulo ku sukulu yaukachenjede ya KwaZulu-Natal ku South Africa. Pakali pano, ndikuchita kafukufuku pa mutu wokhudzana za *Kamvetsetsedwe pa nkhani kwa ana odziwa zilankhulo ziwiri*. Kafukufukuyi adzathandiza kukonza ndondomeko ya maphunziro yomwe imapatsidwa mu sukulu zathu. Choncho ndikupempha chilolezo choti mwana wanu atha kutengapo gawo pakafukufuku ameneyu. Mwana wanu sali wokakamizidwa kutenga nawo gawo mu kafukufukuyi ndipo akhonza kusiya nthawi ina iliyonse ngati mwaganiza kuti mutero. Dziwani kuti mayankho onse amene mwana wanu adzapeleke mukafukufukuyi adzagwiritsidwa ntchito mu lipoti lomwe lidzalembedwe pamapeto pakafukufukuyi koma dzina la mwana wanu silidzatchulidwa mu lipotiyi. Kutenga gawo kwa mwana wanu ndikofunikira kwambiri. Ndipo ndidzakhala wosangalala mwana wanu akatengapo gawo.

Ngati muli ndi mafunso ena ali onse okhudza kafukufukuyi mukhoza kundiyimbira lamya pa nambala iyi 0882 204 921. Ineyo ndimagwira ntchito ku Mzuzu University, adiresi yanga ndi:

Mzuzu University, P/Bag 201, Luwinga, Mzuzu 2.

Ndikukupemphani kuti mulembe dzina lanu, saini ndi tsiku mumipata yapatsidwa munsiyi kusonyeza kuvomereza kuti mwana wanu atengepo gawo pakafukufukuyi:

Dzina:.....

Saini:.....

Tsiku:.....

Appendix 19

Table 5 Results of the questionnaire from the children attending Kapita primary school

	Chichewa	English	Both Chichewa and English	Other languages
1. Language(s) spoken by child	2	4	62	4
2. Language(s) parent uses with child	10	5	53	3
3. Language(s) child is comfortable with others	35	10	23	1
4. Ability to read books written in	0	8	60	0
5. Language (s) used in story telling at home	15	9	38	0
6. Ability to (re)tell stories in	17	6	43	0

Table 6 Total number of children who listen to storytelling at home as well as total number of children who have knowledge of traditional practices (Kapita primary school)

Children who listen to storytelling at home	62/69
Children who have knowledge of traditional practices such as riddles, songs, poems and proverbs.	61/69

Table 7 A list of traditional practices that children from Kapita primary school know

	Chichewa	English	Both Chichewa and English	Other languages
Riddles	16	5	32	0
Songs	4	5	49	2
Poems	1	12	32	1
Proverbs	9	3	28	1

Table 8 Results of the questionnaire from the children attending Mphungu primary school

	Chichewa	English	Both Chichewa and English	Other languages
1. Language(s) spoken by child	30	0	28	5
2. Language(s) parent uses with child	35	0	21	4
3. Language(s) child is comfortable with others	27	22	10	2
4. Ability to read books written in	10	4	44	2
5. Language (s) used in story telling at home	36	2	18	6
6. Ability to (re)tell stories in	39	3	15	5

Table 9 Total number of children who listen to storytelling at home as well as total number of children who have knowledge of traditional practices (Mphungu primary school)

Children who listen to storytelling at home	57/58
Children who have knowledge of traditional practices such as riddles, songs, poems and proverbs.	51/58

Table 10 A list of traditional practices that children from Mphungu primary school know

	Chichewa	English	Both Chichewa and English	Other languages
Riddles	27	2	10	2
Songs	23	5	21	1
Poems	19	2	12	1
Proverbs	20	0	5	2

Table 11 Other languages spoken by the children

	Chitumbuka		Chitonga		Chiyawo		Chishona	
	Mphungu	Kapita	Mphungu	Kapita	Mphungu	Kapita	Mphungu	Kapita
Language(s) spoken by child	2	4	2	0	1	0	0	0
Language(s) parent uses with child	1	3	2	0	1	0	0	0
Language(s) child is comfortable with others	0	1	1	0	1	0	0	0
Ability to read books written in	0	0	1	0	1	0	0	0
Language (s) used in story telling at home	2	0	2	0	1	0	1	0
Ability to (re)tell stories in	1	0	2	0	1	0	1	0

Appendix 20

Story 1 (condition 2; English retelling from English aural story) narrated by a child from Mphungu primary school

There was a mole, the mole had friends, there was a crab!, two:, two angelfish!, five purple star, five purple fish, jellyfish and seahorse. The mole didn't know how to swim but the crab did. So the mole had to use the: rocket to go into the water. They saw a crocodile – and a little [burdles?] was playing with a crocodile. And – and the, the: the: crab and the rocket started laughing. So the: so they realize that it wasn't a real crocodile. The, the fish saw a fisherman. The fisherman started swimming. So, the-the mole and the crab were going up, the: mole was flying up with the rocket while the crab was going up the hill The, the fisherman was trying to shoot at the mole, but the mole was very far The mole shouted lalalala! That is the end of the story.

Story 2 (condition 2; English retelling from English aural story) narrated by a child from Kapita primary school

There was a little mole. Playing with a ball, then the little mole saw a rocket. Then the little mole got into the rocket. Then he hit a yellow button. Then the rocket started to beep and shaking. The mole ... and the rocket bust into the air. And it landed into an island. The rocket parts were broken and they were dropped in the water. Then the mole suffer. Then he met a crab who wanted to take his present – a white bell, white bell. And the mole said no, and the mole gave the crab a ball. Then the crab started playing with the ball, and the ... the mole and the crab became friends...And the crab, help the, help the mole to search for their parts of the rocket. They found one piece... they saw a ... they saw a bottle which they thought was the other piece of the rocket. And they got the bottle and carried it. The crab got the bottle and carried it, and when he was carrying the bottle was too heavy. And the mole helped the crab to grab the, the bottle, which they thought was the other piece of the rocket and the bottle was too heavy. And, the mole had a grip, got a good grip of bottle and they carried it. And they saw their, the: top of the bottle, they saw it was not another piece of the rocket, it was just a bottle. When they were in the water, they saw the crocodile, then then mole dived in the water. And when they saw the crocodile, the crab told the mole that it was not a crab, a: real crocodile. It was a, just a crocodile. Then the ... the, the: mole was on top of the crocodile's nose. Then he started bouncing on the crocodile's nose

until he reached it there. And then, they got back to the island and the other fishes, like, angel fishes, the five purple fishes, starfishes, and angelfishes – and starfishes. They got the other parts of the rocket and pulled them and got them on the island, when they saw a fisherman with a net. The fisherman was wearing a red, a red robe And the mole got into the rocket and bust off, the fisherman, the fisherman, got the ...collected the ...collected a knife and threw it into the air. And the fisherman was too late. The mole was, the mole was up in the mid-air and he got back home and that's the end.