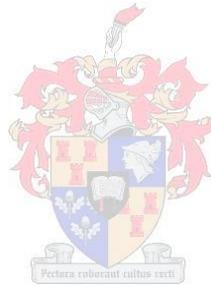


**A GENRE – BASED APPROACH TO TEACHING
WRITING ACROSS THE CURRICULUM IN SISWATI IN
SOUTH AFRICAN SCHOOLS**

By

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Thesis presented in fulfilment of the requirements for the degree of the Master of Literature in the
Faculty of African Languages at Stellenbosch University

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DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Date: 5 September 2015

ABSTRACT

Linguistic scholars have been exploring an effective, contextual and multidisciplinary approach to language education, following the global increase in multilingual societies. This study aims to explore properties of writing related to genre-based literacy in Siswati as a first language for learners in South Africa in a multilingual context. The research is concerned with the properties of writing in Siswati at the high school level and the instruction associated with it. In reality, the educational context of the learners entails that English is the language of instruction or an educational lingua franca in all subjects in schools with learners who have an African language as home language, although English is a second language (L2) for most learners. Therefore, the learners' first language (L1) is only taught as a subject. In this situation, learners and teachers are faced with problems of language (L2) proficiency. According to the South African language policy, all national languages spoken in South Africa should be prioritized in education. This study advances a proposal for a multilingual approach in education through genre-based teaching. Hence, this study presents an investigation of the implementation of genre in the home language classroom context in respect to the textlinguistic features of agricultural sciences genres.

The genre-based theoretical framework and related methodology is explored and elaborated in this study with regards to how Siswati first language learners can be taught linguistic skills acquired in their mother tongue Siswati to writing in content subjects, e.g. biology. The methodology of this study involves the translation of six agricultural science texts for Grade 12 which are then analysed according to systemic functional linguistic (SFL) grammar. The study also investigates issues and challenges in multilingualism and Education policy. The findings of this study present support of the view of the transfer of genre-based skills in texts across the curriculum.

OPSOMMING

Taalkundiges het oor die afgelope jare 'n doeltreffende, kontekstuele, multidissiplinêre benadering ondersoek tot taalonderwys, gegee die wêreldwye toename in meertalige gemeenskappe. Die studie het die doelwit om die eienskappe van skryf te ondersoek soos wat dit verband hou met genre-gebaseerde geletterdheid in Siswati, as 'n eerste (huis) taal vir leerders in Suid-Afrika in 'n meertalige konteks. Die navorsing hou verband met die eienskappe van skryf in Siswati op hoërskoolvlak en die onderrig daarmee geassosieer. In die werklikheid van die onderrig is Engels oorwegend die medium van onderrig in vakke in skole waar die leerlinge hoofsaaklik 'n Afrikataal soos siSwati as eerste (of huis) taal het, alhoewel Engels 'n tweede (of addisionele) taal is van die leerders. Gevolglik word leerders slegs in hulle eerste taal onderrig in die taalvak (van die spesifieke Afrikataal) self. In hierdie medium van onderrig situasie (waar leerders se tweede/addisionele taal gebruik word vir die onderrig van inhoudsvakke) word sowel leerders as onderwysers gekonfronteer met die probleem van onvoldoende tweede taal (Engels) vaardigheid. Volgens die nasionale taalbeleid in Suid-Afrika, behoort alle nasionale tale in Suid-Afrika voorrang te geniet in onderwys. Hierdie studie betoog vir 'n meertalige benadering in onderwys deur gebruik van die genre-gebaseerde benadering. Aldus, bied hierdie studie 'n ondersoek van die implementering van teksgenres in die huistaal-klas konteks ten opsigte van die teks-linguistiese kenmerke van verskillende genres in landbouwetenskappe.

Die genre-gebaseerde teoretiese raamwerk en verbandhoudende navorsingsmetodologie word ingespan in hierdie studie met betrekking tot hoe die tekslinguistiese vaardighede, onderrig aan siSwati eerstetaalleerders soos opgedoen in die onderrig van hulle huis (of eerste) taal, uitgebrei kan word na inhoudsvakke soos landbouwetenskappe. Die metodologie gebruik in hierdie studie behels die vertaling in Siswati (vanuit Engels) van ses landbouwetenskaptekste vir Graad 12, wat dan ontleed word volgens die sistemiese funksionele linguistiek (SFL) model wat onderliggend is aan die genre-gebaseerde benadering. Die studie ondersoek voorts vraagstukke en uitdagings rakende taalbeleid en –beplanning in onderwys. Die bevindinge van hierdie studie bied ondersteuning van die standpunt van die oordrag van genre-gebaseerde vaardighede in tekste oor die kurrikulum heen.

SILINGANISO

Bongcongcoshe betilimi bebasolo baphenya indlela yefufundzisa lulwimi lesebenta kahle, lohambelana nesimo, nalosebenta etifundvweni tonkhe letiniketwa esikolweni, kulandzela kutsi emhlabeni wonkhe jikelele sibalo semimmango lecuketse tive letehlukene netilimi letehlukene siya ngekukhula. Lombhalo uhlose kucwaninga timphawu letihambelana nelwati kutemfundvo eluhlangotsini lwekubhala ngekusebentisa tinhlobo temibhalo elulwimini lweSiswati, lolululwimi lwemdzabu/lwekucala kulabanye bafundzi eNingizimu neAfrika esimeni lesinetilimi letinyenti. Lombhalo lona ukhatsatwe yindzaba yekubhala kubafundzi belibanga lelisetulu, libanga lelishumi nakubili nendlela lebafundziswa ngayo. Ecinisweni, bafundzi basesimeni lapho khona Singisi sisetjentiswa njengelulwimi lwekufundzisa tonkhe tifundvo letinemtsamo noma ke lulwimi lolusetjentiswa esikolweni etifundvweni tonkhe kantsi phela Singisi akusilo lulwimi lebalumunya ebeleni labafundzi. Ngaleso sizatfu, lulwimi lwemdzabu lwalabafundzi lufundziswa kwangatsi lusifundvo phaca njenge lwati lwendalo yonkhana, isayensi. Esimeni lesinjengalesi bafundzi nabothishela bahlangabetana nebulukhuni ekucudzelaneni nalabanye babe basebentisa Singisi. Ngekubeka kwemitsetfo yetemfundvo eNingizimu neAfrika, tonkhe tilimi letisemtsetfweni letifaka ekhatsi tembuso wase Ningizimu neAfrika, tebachamuki, temdzabu, naletihlanganisa emave ngemave tinelilungelo leliphelile lekusetjentiswa esikolweni. Loku kusetfulo sendlela yekufundzisa leshwambakanya tilimi letinyenti, lesolo ingakacali kusetjentiswa. Kungako lombhalo uhlolisisa kutsi ingasetjentiswa njani indlela yekufundzisa ngetinhlobo temibhalo endlini yekufundzisa.

Luhlaka lwemdvwebo wekufundzisa ngetinhlobo temibhalo kanye nendlela lekufundziswa ngayo kunconywe ngu (Christie na Derewianka (2008), (Knapp na Watkins (2005), (Martin na Rose (2008), (Rose na Martin (2012), na (Feez na Joyce (1998). Loluhlaka lubuke kutsi simo sivuma kanganani kutsi bafundzi labacecshwe eSiswatini basebentise emakhono elulwimi lwemdzabu ekubhaleni etifundvweni letinemtsamo, njenge bhayoloji. . Indlela lelandzelwe ekusebenteni lombhalo ifaka ekhatsi kuhunyushwa kwetinhlobo temibhalo letisitfupha letitsetfwe encwadzini yelwati lwendalo kutekulima yelibanga lelishumi nakubili. Lemibhalo iyahlatiywe ngenhloso yekutfole emasu latfolakala elulwimini lweSiswati labhekene nekusebenta kwelulwimi nakukhulunywa ngekwakhiwa kwemisho, tinhlobo temisho, nekuhlanganiswa kwemisho; emasu lasetjentiswa ekwendluliseni tinkhulumo kubalaleli betigaba letehlukene, kanye nemasu ekuhlanganisa emagama kuze akhe umbhalo lonemcondvo lophelele nalovakalako. Ngetulu kwaloko, lombhalo lona uhlolisisa indzaba yekufundzisa leyengamela tilimi letehlukene kanye nemtsetfo wetemfundvo. Lombhalo wetfula indlela yekucecesha bafundzi ekubekeni imibono nemicabango yabo ephepheni, lekuyindlela lesebenta etifundvweni tonkhe letinemtsamo,

letifundziswa etikolweni. Lombhalo futsi uphenculula luphikiswano netinsayeya letihambelana nekusetjentiswa kwendlela yekufundzisa lefaka ekhatsi tilimi letehlukene nemtsetfo wetemfundvo. Imiphumela yaloluphenyo kulesifundvo iniketa siciniseko sebukhona nekusebenta kwemasu lahambelana nendlela yekufundzisa ngekusebentisa tinhlobo temibhalo kulo lonkhe luhlelo lwetifundvo. Loku kugcwalisa inhloso yalombhalo lona.

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ABBREVIATIONS

L1	First Language
L2	Second language
SFL	Systematic Functional Linguistics
LiEP	Language-in-Education Policy
KAL	Knowledge about Language
OWI	One-Way Immersion
TWI	Two-Way Immersion
ILI	Indigenous Language Education
CAPS	Curriculum Assessment Policy Statement
ELF	English as Lingua franca
Bi-	Bilingualism
WSAE	White South African English
BSAE	Black South African English
MBBE	Mother Tongue-Based Bilingual Education
DLBs	Dual Language Books
HID	Human Development Index
CLIL	Content and Language Integrated Learning
ILI	Indigenous Language Immersion
LREs	Language Related Episodes
EFLC	English as First Language Context
TLC	Teaching Learning Cycle
IRF	Initiate-Response-Feedback Cycle
LR:RL	Learning to Read: Reading to Learn
GM	Grammatical Metaphor
GMO	Genetic Modification
PIAAC	Programme for the International Assessment of Adult Competences

TRANSLATED SISWATI TERMS

Text 4.1

Alimentary canal: Litfumbu lekuhambisa kudla lokungena emlonyeni kusebente emtimbeni nalokuphuma emdzidzini njengemangcoliso.

Digestion: Kugayeka kwekudla kube timvushwana letincane.

Absorption: Kuhamba kwekudla lokuncibilikile kungene emaselini emtimba.

Peristalsis: Ngemagagasi ekuvaleka nekuvuleka kwemamasela elubondza lwelitfumbu lekudla lafuca kudla.

Salivary amylase: Tintfo letingagucuki leticala emakhemikhali ekugaya kudla, laphindze agaye sitashi sibe ngushukela lowetayelekile.

Bolus: Yibhola yekudla lokubunjwa lulwimi.

Oesophagus: Umphimbo, ngulapho kwehla khona kudla.

Retro-peristalsis: Senteko sekuphuma kwekudla kusuke esiswini kuye emlonyeni.

Cardiac sphincter: Limasela lelibusheleleti leliyindingilizi lelilawula kuhamba kwekudla kuye esiswini.

Chyme: Sibhicongo sekudla nejusti lesentiwa kuvaleka nekuvuleka kweludvonga lwesisu.

Pyloric sphincter: Limasela leliyindingilizi lelivulekako kuze kutsi kukhululeke kancane kudla lokunejusti kuye etfunjinini lelincane.

Duodenum: Sigaba sekucala selitfumbu lelincane.

Jejunum: Ngumkhatsi welitfumbu lelincane.

Ileum: ngulapho kugcina khona litfumbu lelincane.

Villi: Tingadlwana letimile letincane letisekhatsi etfunjini lelincane.

Small intestine: Litfumbu lelincane lelihambisa kudla lokugayekile lokusebenta emtimbeni wonkhe

Large intestine: Litfumbu lelikhulu lelihambisa kudla lokungakagayeki kuze kuphume emtimbeni.

Rectum: Yincenye yeluhlelo lwekugayeka kwekudla lapho kugcineka kuphindze kupakisheke khona kudla lokungenamsebenti.

Anus: Yincencana lelawula kuphuma kwemangcoliso emtimbeni (umdzidzi).

Terms: Text 4.2

Testes: Emasendze

Sperm: Sidvodza, sitfo lesakha imphunyu esiswini.

Testosterone: Ngemadlala alabadvuna.

Ovaries: Tibilini letikhicita emacandza ekwakha umuntfu.

Ova: Licandza

Copulation: Kuhlanguana kwalomdvuna nalomsikati, kulalana.

Epididymis: Ngumbhobho wesidvodza losemvakwemasendze lowengcisa sidvodza siye kulona losuka emasendzeni uye esinyeni.

Vas deferens: Ngumbhobho wesidvodza losuka emasendzeni uye esinyeni.

Puberty: Kufika esigabeni sekubamudzala lapho khona silwane sisuke sesilungele kulala.

Testes: Emasendze

Penis: Ngumpipi noma yintfonga yaletindvuna yekutfundza inhlanyelo yentalo.

Semen: Yinhlanyelo yentalo.

Vagina: Sitfo setilwane letinsikati lesemukela umpipi ngesikhatsi sekuhlanguana phindze sibe yindlela yokuphuma kwemntfwana losuke asesiswini.

Terms: Text 4.3

Dehorning: Sento sekujuba noma kuphungula timphondvo tetilwane kuze tingabi yingoti kuletinye tilwane noma kubaholi bato.

Castration: Sento sekuphakula emasendze etilwane kute tingabi nematfole.

Docking: Sento sekujuba imisila yetilwane.

Nose pliers: Sakhiwo lesibitwa ngekutsi ngemanyeva lesifakwa emlonyeni welitfole malilunyulwa kwentelwe kutsi lithlabeka leliblese bese iyabaleka lenkhomo lemuniyisako.

Head clamp: Sakhiwo lesibitwa ngekutsi lijoke lesisita kubophela tilwane ndzawonye kuze kutsi tibambisane matisebenta, njengetinkhomo makulinywa.

Rigor mortis: Kucina kwenyama lemhlophe emva kwekubulawa kwesilwane.

Saaren: Luhlobo lwembuti lefundzisekako, lelungela kufuywa.

Oxytocin: Luhlobo lwehomoni lesita kukhicita lubisi emibeleni yetilwane.

Terms: Text 5.1

Genetic modification: Kuguculwa kwetakhiwo tetilwane.

Terms: Text 5.2

Labour: Ngemandla lafakwa tisebenti ekwenteni umsebenti lotsite noma tisebenti leticashelwe umsebenti lotsite.

Casual workers: tisebenti leticashwe kwesikhashana.

Full- time: tisebenti leticashelwe kusebenta sikhatsi sonkhe lesimisiwe kulolo luhlangotsi lwemsebenti.

Part- time: tisebenti letiniketwa sikhatsi lesifisha kunalesi sesikhatsi sonkhe (kungaba ngemalanga lamatsatfu evikini noma entsambama kuphela).

Seasonal: tisebenti letesweleka esikhatsini lesitsite lesimatima emnyakeni njenge kuhlakula ummbila nge Ngongoni.

Temporary: sisebenti sesikhashana lesibambela sisebenti lesinenkinga letsite noma lesibamba umsebenti lote sisebenti lesiceceshiwe. Sibonelo, sisebenti singabambela umfundzisi lotsetse ilivi yekuyobeleka noma lisekela lingaba nguthishela nhloko kuze kutfolakale sisebenti lesilungele kuba nguthishela nhloko.

NOTATIONS

These are notations employed by Christie and Derewianka (2008) when displaying their texts:

A double slash // will mark clause boundaries: *We got off the bus//and we went inside the house.*

Marked themes will be displayed in bold: ***When we got off the bus**//we went in the mansion.*

Embedded clauses will be displayed thus: *A poor man [[named Coby]] once roamed the beautiful green hills...*

Embedded phrases will be displayed thus: *The seeds [in the bottle with the cap off] ...*

Enclosed clauses will be displayed thus: *At the end of the game « after we proudly screamed out or team anthem » we trudged our way to Richmond station...*

Appraisal values will be displayed thus:

Affect (to do with feelings) with a row of dots below the words: *I was really excited.* **Appreciation** (to do with valuing things and events) with double underlining: *This book is brilliant*

Judgement (to do with assessments and behaviours) with a wavy line: *In the ancient times there was a Minotaur [[that was very nice and kind // and lived in a cave]].*

A row of dots in citing texts will indicate that some text has been removed.

This poem encompasses an imaginative journey...

The symbol ^ will indicate sequence.

CHAPTER ONE

INTRODUCTION

1.1 AIMS AND PURPOSE OF STUDY

The purpose of this study is to investigate properties of academic writing required for grade twelve learners with the framework of genre-based literacy. The focus language is Siswati as a first/ dominant language. The research shall investigate how Siswati first language learners can be equipped to apply the writing skills they have acquired in their first language to writing across the curriculum or in their content subjects such as history, geography, biology, agricultural science and economics or life Sciences. The target content subject used in this writing is agricultural sciences for Grade 12 learners in South Africa. The aims and purpose of the study presented here will be achieved through exploring principles and properties of the genre-based theoretical framework and methodology. The major aims of this study are as follows:

- (i) to investigate how high school learners can use their home language for the purpose of writing in their content subjects in a bilingual education context where English as their second language or additional language is the prescribed medium of instruction for all content subjects;
- (ii) to examine to the question of how writing skills in genre-based pedagogy are realized for learners whose home language is Siswati;
- (iii) to investigate prominent genres that learners can be expected to exemplify in their writing of content subjects in the home language, Siswati so that they involve a number of social purposes for writing in academic contexts;
- (iv) to explore the extent to which genres in the home language can employ all three metafunctions of language posited in Systemic Functional Linguistics (SFL);
- (v) to evaluate language planning and policy in respect to the instruction of the home language in the education system;
- (vi) to address the question of how to fill the gap in writing development in a range of curriculum areas across a variety of genres in Siswati as home (dominant/first) language.

In terms of objective (i) of section 1.1, the main aim of the study presented here is to investigate the trajectory of writing instruction required for high school learners, in particular for grade twelve learners whose home language is Siswati. English, as their additional language, is the prescribed official language of instruction in content subjects. In addition, English is taught as a subject in this context. However, these learners do not possess the advanced language and literacy requisites to use

English as the medium for their education. Siswati, their mother tongue, is only taught as a subject. Similarly, their teachers do not possess the advanced language proficiency in English that is required to teach content subject matter with clarity. Practically, learners and teachers in this context often adopt bilingual education when it comes to the elaboration of concepts so that learners understand them clearly. Therefore, the study advances the revitalization of Siswati, a home language in a bi-/multilingual education context, which relates to the centre of debate in the South African system of education on the role of African languages.

In terms of objectives (ii) and (iii) of section 1.1, the motivation of this study is to investigate the instruction of various types of genres across the curriculum. Hence, the study will investigate writing skills in genre-based pedagogy for learners, whose home language is Siswati in order to observe how such is realized in their writing in this home language in the genre-based approach to language learning and instruction. Writing skills are not only required in language subject, but also in content subjects where learners need to write a descriptive report, taxonomic report, consequential explanation, a procedural recount, discussion or exposition texts. With this approach the study aims to emphasize the importance of awareness of writing in the first language Siswati across the curriculum.

In terms of objective (iv) in section 1.1, the study considers exploring the extent to which genres in the home language can be analysed in terms of all three meta-functions of language. The concern arises from the reality that many grade twelve learners whose mother tongue is Siswati study in schools with English as medium of instruction, where little time is set aside for the instruction of their home language. Hence, this study is concerned with how genre-based writing across the curriculum can be used to improve writing skills in Siswati in a context where content subjects are taught in the second language, English. The research will investigate the properties of writing for grade twelve learners, involving study of the generic structure of texts, salient language components, the ideational resources of language, the textual resources of language and the interpersonal function of language with regard to the types of texts listed in the above paragraph.

In terms of objectives (v) and (vi) the study aims to present evaluative views on language policy and planning with respect to the instruction of the home language, Siswati, in the education system of South Africa and thereby contribute to the knowledge gap within the education system to writing in Siswati. Currently, language policy proposes the use of all languages in South Africa, respectively, even languages of immigrants. South Africa has eleven official languages. English, being a second language for most speakers of the African languages, dominates in learning materials and text books for all content subjects. In addition, examinations and tests are in English

and learners are required to answer question papers in English. According to research, the implementation of the South African language policy in education is confronted by various challenges. This study appeals for adjustments and implementation of the language policy in South Africa and proposes the writing of the already listed Siswati genres and the teaching of Siswati as a language subject instead of just a content subject.

Given the aims and purpose of this study outlined above, the following section presents the theoretical framework of the study.

1.2 THEORETICAL FRAMEWORK

The study adopts a textlinguistic approach concerning research by the scholars Christie and Derewianka (2008), Feez and Joyce (1998), Knapp and Watkins (2005), Martin and Rose (2008) and Rose and Martin (2012) with related propositions based in Systematic Functional Linguistics (SFL) for teaching and learning which will be discussed in the next chapter. The research presented here is based on the genre-based approach to writing of grade twelve learners whose mother tongue is Siswati but receive instruction for content subjects in English. In this case, this study sets out to investigate the main distinctive features of the genre-based approach with respect to writing in Siswati with regard to the purpose of a genre, the schematic structure, organization of information, characteristic language components of compositional reports, classification reports, consequential explanations, discussions, and expositions, as postulated by the already mentioned scholars. Further, linguistic resources that create certain ideational, interpersonal and textual meanings are explored with reference to the Siswati language system, in consideration to Grabe and Kaplan's (1996) analysis of textual structure. The characteristics of SFL as these inform alterations in Language in Education Policy (LiEP) will be investigated in section 1.7 of this chapter. The next section will consider the research questions to be answered in this study.

1.3 RESEARCH QUESTIONS

The key questions which this study addresses include the following:

- (i) To what extent can high school learners, use their home language Siswati for the purpose of writing in their content subjects in a bilingual education context where English as their second language or additional language, is the prescribed medium of instruction for all content subjects?

- (ii) How can writing features of genre-based pedagogy for learners whose home language is Siswati be realized in their writing, following the genre-based approach to language learning and instruction?
- (iii) Which are the prominent genres that learners can be exposed to in their writing of content subjects in the home language, Siswati, which involve various social purposes for writing in academic contexts?
- (iv) To what extent can genres in the Siswati home language employ all three SFL metafunctions of language?
- (v) Is language planning and policy structured in favour of, and respect to, the instruction of the home language Siswati in the South African education system?
- (vi) What can be done to fill the gap in writing development in a range of curriculum areas across a variety of genres in Siswati as home (dominant/first) language?

The research questions are as stated above; following is the methodology of the study.

1.4 METHODOLOGY

The methodology implemented in this research aims at investigating genre-based linguistic resources that can be employed in writing agricultural science texts, hence, involves the analysis of six genre types that exhibit textlinguistic contrasts. Stage one of this study involved the selection and translation of six Siswati texts from a grade twelve agricultural science textbook by the authors J. de Fontaine, B. Letty, K. Morrison, A. Smuts and F. Khumalo (2006). Secondly, these texts were categorized in terms of genre types that inform and those that argue and the results were a descriptive report, taxonomic report, consequential explanation, procedural recount, discussion and exposition. Thirdly, the generic structure of each genre was examined and other text types involved in each text were identified and labelled. In the fourth stage information regarding the organization of each genre was presented for each text. Fifthly, general Siswati language components characterizing each genre were specified.

The sixth stage is three-fold, entailing the exploration of genre-based linguistic resources employed in agricultural science texts with respect to each Siswati genre type both at the clause level and beyond the clause. The first task in stage six was to identify ideational resources in terms of the logical metafunction, which included clause types, combination of clauses that create meaning relationships. This component also analyses ideational resources with regards to the experiential metafunction, involving processes, participants and circumstances, including grammatical metaphor. As a second component, textual resources were identified involving resources of

grammatical cohesion and lexical cohesion. Grammatical cohesion relates to the analysis of reference, substitution, ellipsis and conjunction, while lexical cohesion deals with repetition (reiteration), synonymy, antonymy, hyponymy, homonymy, inclusion and allocation. In addition, theme- rheme was examined as proposed by Christie and Derewianka (2008:20) in relation to given-new information by Grabe and Kaplan (1996). The third component involved the exploration of interpersonal resources for interaction in the Siswati language system. In this research component, the interpersonal resources of interaction at the clause level were not explored in depth rather , resources for creating patterns of evaluation and engagement with the audience were analysed. These resources are drawn from the appraisal theory by Martin and White (2005), which is a theory developed from Systemic Functional Linguistics (SFL). The appraisal theory is concerned with the evaluation of attitude, graduation and engagement. The methodology of the study has been given with the purpose of exploring linguistic resources that grade twelve learners can employ in their essay writing in agricultural sciences. The next paragraph presents the scope and delimitation of the study.

1.5 SCOPE AND DELIMITATION OF THE STUDY

Although there will be constant reference in this study to the work by other scholars, the research focused on the implementation of genre-based approach to learning and teaching for grade twelve learners whose first language is Siswati, in South Africa. The study also focuses on the content subject, agricultural sciences, analysing six types of genres: compositional reports, classifying reports, consequential explanations, procedural recounts, discussions, and expositions. The main purpose is to investigate the genre-based linguistic resources that learners could employ in writing these texts in their context. The next paragraphs present the organization of the study.

1.6 ORGANIZATION OF STUDY

This study has six chapters. In chapter one, the aims and purpose of the study are presented. In section 1.1, I state the aims and objectives of the study. In section 1.2, I present the theoretical framework. In section 1.3, I formulate the research questions for the study. In section 1.4, I state the methodology of the study. In section 1.5, the scope and delimitation of the study will be stated and in section 1.6, the organization of the study is stated. In section 1.7, on academic literacy development heading addresses sub-topics on language policy in schools. In section 1.7.1, I discuss the meaning dimensions of literacy in education, in section 1.7.1.1, I review linguistic diversity in South Africa and in section 1.7.1.2, I explore the position of Siswati in the education department in South Africa. In section 1.7.1.3, I investigate the use of English as lingua franca in South Africa and

section 1.7.2 evaluates language policy and language in education for literacy in South Africa. In section 1.7.2.1, I also investigate indigenous languages and policy in South Africa. In section 1.7.3, I review some perspectives on bi-/multilingualism in education and in section 1.7.4, I discuss models of bilingual immersion, where section 1.7.4.1 focuses on one-way immersion, section 1.7.4.2 explains two-way immersion and section 1.7.4.3 indigenous language immersion. In section 1.7.5, I explore classroom interaction in one-way, two-way, and indigenous contexts beginning with section 1.7.5.1, where I observe classroom interaction in one-way immersion and section 1.7.5.2 classroom interaction in indigenous immersion education. In section 1.7.6, I discuss the revitalization of indigenous languages through immersion education and in section 1.7.7; I explore indigenous immersion program characteristics and challenges. In section 1.7.8, I review some perspectives on immersion pedagogy and in section 1.7.9, I evaluate language choice and code-switching/alternation in the classroom. In section 1.7.10, I evaluate the curriculum assessment policy statement and in section 1.7.11, I present the summary and consideration of general views on language policy and the curriculum for language learning in Siswati. In section 1.8, a general comment on the curriculum and Language-in- Education Policy will be stated.

In chapter two, the rationale and properties of genre-based teaching/pedagogy are reviewed in relation to work done by some prominent scholars concerning the implementation of the genre-based approach across the curriculum. Various arguments, frameworks and implications of some authors are explored. For example, Christie and Derewianka (2008) argue for a study that involves different curriculum areas, across a range of genres, considering the context where the genres are produced. Hence, they maintain Johns's (2002) idea of two levels of the social context, the register and genre. They insist that success in developmental phases of learning to write depends on the field of knowledge involved, as linguistic resources are employed differently in each field of study. They further argue for a democratic writing instruction.

In this chapter Rose and Martin's (2012) argument on 'Genre, Knowledge and Pedagogy in the Sydney school' about social and educational contexts is reviewed. They postulate that genre pedagogy effectively embraces each member of the learning community and provides learners with access to resources necessary to participate more equally. Their argument explains that 'Knowledge About Language' (KAL) refers to effective teaching that provides learners with explicit knowledge about the language in which a curriculum is written and negotiated in the classroom. Chapter two presents Martin and Rose's (2008) useful tools on text analysis. These scholars observed that genres can be studied in terms of their relations, hence, they extend an invitation to look at relations among genres and they argue for the notion of macro-genres.

The chapter explores Knapp and Watkins' (2005:17) practical ideas for teaching and assessing genres and grammar of writing across the curriculum. They introduced a model of genre-based approach writing at all levels. They posit that the relationship of genre, text and grammar as technologies for teaching and assessing writing will provide learners with the ability to use the codes of writing genres and grammar effectively and efficiently. Their argument is strongly based on genre-based pedagogy and systemic functional linguistics (SFL) methodology of using grammar within a genre, not in a prescriptive way. Knapp and Watkins (2005:41-74) present a list of grammatical forms, definitions and examples, together with some pedagogic principles.

In addition, Feez and Joyce's (1998) writing skills development is presented, which provide a comprehensive study of narratives and non-fiction text types. Their aim was to demonstrate how grade 7 to 10 learners can write texts clearly and systematically. For each text they offered the purpose, a model text, essential elements and overall design, analysis of structure and relevant technical knowledge, including grammar and vocabulary. They argue that teaching writing skills is ideal for writing activities in the classroom. All these scholars argue in favour of genre pedagogy, and even though they favour different approaches, they also share specific assumptions.

Furthermore, Christie and Derewianka's (2008) overview of curriculum and key written genres across the curriculum is presented together with other written genres. In addition, Martin and Rose's (2008) topological and typological classification of genres is reviewed in chapter two and Knapp and Watkins's (2005) classification of genres into five families with the implication that genre needs to be taught in a systematic functional approach by initiating learners into subject specific literacies in context rather than with social processes. Chapter two further reviews Christie and Derewianka's (2008) concern for planning writing programmes in all subjects, in four phases across the years of schooling. The phases are guided by six principles which one of them states that the metalanguage involved in teaching should slowly build across the years, using selected traditional and functional terms.

Chapter two also reviews Christie and Derewianka (2008), Feez and Joyce (1998), Knapp and Watkins (2005), Martin and Rose (2008) and Rose and Martin's (2012) point of view that genre is based in the context of situation, considering field, tenor, and mode which together are termed register. Further, Christie and Derewianka's (2008) observation that language has three functions (ideational, interpersonal, and textual) is presented in chapter two. In chapter two, Rose and Martin's (2012) presentation on the Australian genre-based pedagogy, learning activities, reading to learn program, teaching to learn cycle, pedagogic modalities, the concern about the designation of meta-pedagogy, and four phases of professional learning are reviewed. Moreover, Knapp and

Watkins's (2005) framework of assessment is presented in chapter two. Lastly, chapter two reviews Christie and Derewianka's (2008) proposal of discourse analysis and concern about developmental trajectory in writing.

Chapter three presents SFL linguistic resources for reading and writing genres effectively. These resources are based on the context where they are produced and they consider the *field*, which refers to the subject matter or topic, the *tenor*, referring to who is involved and the *mode*, which is the role that language plays. Further, chapter three presents specific linguistic resources for writing in Agricultural Science as postulated by Christie and Derewianka (2008).

With regards to chapter four, the methodology, linguistic approaches and theoretical elements discussed in chapter two and three are used in the analysis of four grade 12 informative Agricultural Science texts in Siswati. The texts involve compositional reports, classifying reports, consequential explanations, and procedural recounts. These texts will each be analysed according to language resources used in SFL as discussed in chapter three. The procedure for investigating each text entails analysing the genre type, its purpose, a model text, the generic structure, organization of information, characteristic language components, and the linguistic resources considering the ideational, textual and interpersonal functions of language.

In the same manner, chapter five will be concerned with the analysis of two argumentative texts: discussions and expositions. The analysis will follow the same procedure as in informative texts in chapter four.

Chapter six presents the conclusion of the study, considering the findings and discussions of different scholars. Chapter six also reviews the findings and recommendations for further research and investigates the relevance of the genre-based theories in relation to Siswati as presented in this study. The next section of this chapter explores key issues concerning academic literacy and development in education.

1.7 ACADEMIC LITERACY AND DEVELOPMENT: BI-/MULTILINGUAL TEACHING AND LANGUAGE -IN- EDUCATION POLICY (LIEP)

In an attempt to identify factors that need to be considered in academic literacy and development, section 1.7.1.1 will first explore views from current research on literacy in education and linguistic diversity in South Africa. Second, in section 1.7.1.2 I will investigate the status of Siswati in the education department in South Africa taking into consideration the use of English as a lingua franca in section 1.7.3. Third, in section 1.7.2, I will explore language policy and language-in- education in

South Africa. In section 1.7.3, I will investigate perspectives on bi-/multilingualism in education, taking into consideration models of bilingual immersion, one-way immersion (OWI) in section 1.7.4.1, two-way immersion (TWI) in section 1.7.4.2 and indigenous language immersion (ILI) in 1.7.4.3. Further, in section 1.7.5, I will explore classroom interaction in the three models above. In section 1.7.6, I will investigate the issue of revitalizing indigenous languages, and discuss characteristics and challenges associated with indigenous immersion programs in section 1.7.7. In section 1.7.8, I will explore perspectives on immersion pedagogy and consider language choice and code-switching/alternation in the classroom in section 1.7.9. In section 1.7.10, the South African curriculum assessment policy statement (CAPS) will be discussed. Lastly, in section 1.8, I present a summary of the entire chapter with considerations of general views on language policy and multilingualism in language learning in the language Siswati. Multilingualism has been argued to be an effective instrument in the achievement of literacy in education which is discussed in the following paragraph.

1.7.1 Literacy in education

In terms of the Programme for the International Assessment of Adult Competencies (PIAAC) literacy refers to the ability to identify, understand, interpret, create, communicate and compute, printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society. It involves the acquisition of the skills needed to relate written representations in the language of literacy to relevant aspects of experience in general, in relation to the whole world around us with its past, present, and future, together with all of its diversities and complexities. Liddicoat (2007:21) defines literacy as the flexible and sustainable mastery of a repertoire of practices with the texts of traditional and new communications technologies via spoken language, print, and multimedia. He asserts that literacy development is one of the main objectives of language-in-education planning. He points out that the definitions of literacy are not only concerned with framing practices to be included in literacy planning, but they also create understandings of what it means to be a literate subject in the society. That is, literacy instruction aims at far more than teaching children to encode and interpret print messages; it functions to establish in literacy for learners the ability to have a deep cultural beliefs about what it means to be literate. Liddicoat (2007:16-17) further provides an example of a recent literacy programme which reflects the limited scope of functional literacy programmes from Indonesia. In addition, Liddicoat (2007:23) explains that literacy planning is not only concerned with educational provision, but anticipates the literate outcome. In this case, language planning and policy documents can be treated as socially transformative work: they are projective in that they

form a part of a process of education reform and offer a vision of what education can and/or should contribute, and they are enactive as they are formulated to guide actions in order to achieve the envisioned reform and endorses a particular construction of the literate subject. Language planning is also described as a political statement of values which frames the natural engagement in the economic and social world. Research brings about an example of a recent literacy programme in Indonesia (Department of National Education Indonesia, 1999) which states that planning for the literacy programme involves the standard activities for programme delivery, developing training manuals and handbooks, training personnel; setting up delivery, establishing targets, evaluating outcomes and measuring learner achievements.

Haugen (1983:28) postulated four language planning steps, where the first one involves the selection of a norm, i.e. selecting a language variety for a particular content. Secondly, he postulated the step of codification, which is the arrangement of rules governing the development of an explicit written form of language. The implementation of language studies as an attempt to spread the language form is the third step. Fourth and last, is elaboration which involves continued updating of the language variety to “meet the needs of the modern world”.

This discussion leads to a concern about minority/indigenous languages and policy. Haugen concluded that one of the main agents in killing languages is the linguistic genocide which happens in formal education every time indigenous or minority children are educated in a dominant language. Research has been done in relation to Language in Educational Policy (LiEP) which has to answer questions on linguistic diversity in South Africa. Literacy in education does not only refer to the knowledge of reading and writing as was stated in early studies. The next paragraph discusses linguistic diversity in South Africa.

1.7.1.1 Linguistic diversity in South Africa

According to South Africa’s democratic constitution, which came into effect on 4 February 1997, eleven official languages are recognized, for which the state guarantees equal status. These are Afrikaans, English, Ndebele, Xhosa, Zulu, Sesotho sa Leboa, Sesotho, Setswana, Siswati, Tshivenda, Xitsonga and indigenous creoles, i.e. Tsotsi Taal and pidgins, i.e. Fanagalo. Besides the eleven official languages, other African, European and Asian languages are spoken in South Africa. The spoken languages include Khoi, Nama, and San languages, sign language, Arabic, German, Greek, Gujarati, Hebrew, Hindi, Portuguese, Makua, Sanskrit, Tamil, Telegu, and Urdu. There are also indigenous creoles and pidgins of the listed languages. Generally, English is understood across the country as the language of business, politics and the media, and is considered as the country’s

lingua franca. In this diversity, South African English is influenced by words and pronunciation from all the other languages. In terms of the 2011 census, Zulu is the mother tongue of 22.7% of South Africa's population, followed by Xhosa at 16%, Afrikaans at 13.5%, English at 9.6%, Setswana at 8% and Sesotho at 7.6%. The other official languages are spoken by less than 5% of the population individually. It can be concluded that most South Africans are multilingual, that is, they are able to speak two or more languages. Immigrants are in the same situation. As the aim of this study is to investigate the use of Siswati in education, the next paragraph will give an introduction of Siswati as one of the official languages in South Africa. The linguistic diversity of South Africa having been discussed, next the status of Siswati in the South African context is considered.

1.7.1.2 Siswati in South Africa

Siswati is one of South Africa's minority languages, spoken mostly in eastern Mpumalanga, a region bordering the Kingdom of Swaziland. It is spoken by less than 1.3 million people. In Mpumalanga, Siswati speakers are the majority with a provincial population of 27.4%. Siswati is one of South Africa's four Nguni languages closely related to Zulu. At school learners are expected to learn all content subjects in English, a second language, and have Siswati their dominant home language as a subject. Teachers for these learners are also speakers of Siswati, hence the English they use in teaching content subjects is a second or additional language to them too. In this case, they might sometimes not understand well the content they are teaching. The temptation for such educators to switch from English to Siswati in an attempt to help learners understand better. The purpose of this study is to attend to the functional way of teaching language across the curriculum which calls for the adoption of bi-/multilingualism in the educational system. The concept of multilingualism questions the use of English only as a lingua franca.

1.7.1.3 English as a lingua franca in South Africa

A "lingua franca" is a language that is used as a medium of communication between speakers who do not share a first language (L1). For example, a Makonde L1 speaker and a Shangaan L1 speaker in Mozambique may use Portuguese as lingua franca when communicating with each other, only if both of them have knowledge of Portuguese.

English as a lingua franca (ELF) in this study refers to English when used as a medium of communication between speakers who do not share their L1. Gough (2009:1) describes English in the South African context as a language that has been highly influential in various ways. He mentions that records indicate that English made initial contact with southern Africa before formal British colonization in 1820. The colonial period in South Africa lasted from 1652-1917. English

was declared the official language of the Cape Colony in 1882 (replacing Dutch). At the formation of the Union of South Africa in 1910, which united the Boer republics of the Transvaal and Orange Free State with the Cape and Natal colonies, English was made an official language together with Dutch, which was replaced by Afrikaans in 1925. With the current eleven official languages, English in South Africa has become a language of importance. Presently, English is South Africa's lingua franca, and the primary language of government, business and commerce. Research indicates that English has been a language of education too, as proven by the recent education curriculum that makes two languages compulsory at school, with English the language of learning and teaching in most schools and tertiary educations. Bamgbose (2014:650) points out that as long as English is used as the largely only official language and the language of higher education, it will maintain its function as the language of research, policy information and diplomacy. As a means of rectifying the situation, Early and Norton (2014:687) in their research on the use of English as medium of instruction in rural African classrooms, made specific recommendations. One of these states that education programmes should include providing teachers with opportunities to understand and explore language as a social practice and a meaning making system, with great variation across sociolinguistic situations. Teachers should be supported in becoming more aware of how language works in their subject areas and to design units of work and tasks that scaffold learners' academic language and content learning simultaneously. They also propose the exploration of bi-/plurilingual and multimodal pedagogies, where teachers develop expertise in effectively teaching for transfer across languages and across modes. Any move taken in the department of education implicates changes in the language policy and language-in-education for academic literacy development in South Africa. In the following section, the situation of language policy and language-in-education for academic literacy development in South Africa will be considered in more detail.

1.7.2 Language policy and language-in-education for literacy in South Africa

According to Bergenholtz (2006:19) language planning refers to the process of making deliberate decisions about the form of a language, such as choosing among competing forms and inventing new vocabulary which is carried out on some kind of official basis. Language policy is an official government policy regulating the form, teaching or use of one or more languages within an area controlled by that government. These are considered in respect of the on-going debate on multilingual education. Sierens and Avermaet (2014:213ff) state that it is difficult to advocate an intensive multilingual educational programme in schools with a lot of non-native, underprivileged children. However, the home language of learners is an asset that these children bring to school, which is part of the multilingual repertoire the school can exploit rather than discount. Oothuizen and Southwood (2006:18) define language planning as the totality of activities aimed at regulating

the use of language, often linked with policies. They define language policy as a set of governmental decisions on the relative priorities of the use of languages in a state, for the purpose of employment, education, etc., which can influence the number and types of reference works produced and used.

Language planning and education policy is not only a concern in South Africa but in the global world. Most African countries have gone through the colonization system and are still experiencing post-colonial effects. As a result, language planning in education was based on western structures. Thus, Norton (2014:637) reports that researchers have made a case that the variety of English most acceptable to teachers in South Africa is White South African English (WSAE) and that some believe that Black South African English BSAE speakers 'cannot pronounce English properly because of the influence of their languages'. Hence, this study sets out to investigate the issues concerning language planning and policy in South Africa so that language planning for literacy is achieved. Norton's research further suggests that if language prescriptions and educational policies are not linked with the local knowledge of teachers, learners, and parents, they are not working towards the promotion of educational and social change. He postulates that if teachers are actively participating in educational change, there will be larger influence on classroom practices. Liddicoat (2007:1) asserts that language planning for literacy acquisition may be reflected from the perspective of corpus planning, including language standardisation processes and the development of scripts, dictionaries, grammars, and educational materials to be used in literacy instruction.

Anthonissen and Roux (2010:41ff) in their exploration of 'language status' mention that in the post-1994 South Africa the term 'language planning' has been used to refer to both a component of a language policy process (whether at national, regional or institutional level) and academic deliberations on this process. They add that in recent years the South African discourse on language planning has become increasingly focused on a perceived gap between the stated objectives of formal language policy and actual language practices. According to Anthonissen and Roux (2010:45), language planning emerged as a predominantly American discourse, which coincided with the growth of American sociolinguistics as a distinct sub-discipline of linguistics.

On the same note, Anthonissen and Maltzan (2009:1) are concerned about the monolingual orientation in language planning and policy in Africa, saying it is not surprising that in the majority of cases colonial languages have retained their official status and are the main languages of education, state functions and business in general. Liddicoat (2007:5) observed that minority language literacies are marginalized and silenced in the construction of monolingually and monoculturally homogenous literacy in which diversity of language and literacy practices are seen

as problems for remediation rather than as purposeful and valuable capabilities of individuals. The discussion will now focus on the language in education policy of South Africa.

In section 1.6.2 of the language policy, it is stated that South Africa has eleven official languages.

In paragraphs 2-6 of the July 1997 language in education policy, it is stipulated that:

1. The inherited language-in-education policy in South Africa has been fraught with tensions, contradictions and sensitivities, and underpinned by racial and linguistic discrimination. A number of these discriminatory policies have affected either the access of the learners to the education system or their success within it.
2. The new language in education policy is conceived of as an integral and necessary aspect of the new government's strategy of building a non-racial national in South Africa. It is meant to facilitate communication across the barriers of colour, language and region, while at the same time creating an environment in which respect for other languages other than one's own would be encouraged.
3. This approach is in line with the fact that both societal and individual multilingualism are the global norm today, especially on the African continent. As such, it assumes that the learning of more than one language should be general practice and principle in our society. That is to say, being multilingual should be a defining characteristic of being South African. It is constructed also to counter any particularistic ethnic chauvinism or separatism through mutual understanding.
4. A wide spectrum of opinions exists as to the locally viable approaches towards multilingual education, ranging from arguments in favour of the cognitive benefits and cost-effectiveness of teaching through one medium (home language) and learning additional language(s) as subjects, to those drawing on comparative international experience demonstrating that, under appropriate conditions, most learners benefit cognitively and emotionally from the type of structured bilingual education found in dual-medium (also known as two-way immersion) programmes. Whichever route is followed, the underlying principle is to maintain home language(s) while providing access to and the effective acquisition of additional language(s). Hence, the Department's position that an additive approach to bilingualism is to be seen as the normal orientation of the results of comparative research, both locally and internationally.

Having highlighted some key statements in the South African language policy, I will explore the tensions related to the implementation of the language in education policy. According to Johnson (2013:36) language as resource orientation envisions linguistic diversity and multilingual education as resources for native and non-native speakers and, therefore, two-way additive (sometimes called two-way immersion or dual language) bilingual education, in which both native and non-native English speakers learn in both languages. With the situation of language policy in South Africa, Prah's (2007:18) solution is the embracement of multilingualism, not bilingualism or unilingualism.

According to a report by Moodley (2009:22ff) the University of Kwazulu Natal resisted the new bilingual policy which is blamed on the stagnation of indigenous languages, whereby the society is not prepared to do away with old practices. Bamgbose (2014:653) points out that the goal of 100%

completion of primary education for all learners will still be an illusion if the policy is not changed and every child is not allowed to undertake basic mother tongue-based bilingual/multilingual education (MBBE). There is a concern about the place of indigenous languages in education as well as in the South African language policy. The following paragraph considers the position of indigenous languages and the South African policy.

1.7.2.1 Indigenous languages and South African policy

In support of the greater use of South African indigenous languages, Prah (2006:3ff) argues that it is in language that culture is transmitted, interpreted and configured. He views language as the most important means of human intercourse. Language and cultural rights are therefore central to all considerations of human rights in the world. Prah recommends that culture should be regarded as a set of distinctive spiritual, material, intellectual and emotional features of society or social group, and that it is influential to art and literature. He further views language and literacy as crucial elements for societal development. He points out that currently languages of the African majorities are marginalized and underdeveloped, in comparison with Afrikaans and, more particularly, English. Therefore, he concludes that it is impossible to develop the society in a balanced or socially sustainable fashion when the target languages are exclusively located in small minorities. He points out that English dominates in education and media, followed by Afrikaans which has its own newspapers. Thus, the majority of South Africans who speak African languages are marginalized.

Makoe and McKinney (2014:659ff) explored linguistic ideologies in multilingual South African schools. They state that the South African LiEP is silent on the possibilities of using more than one named language in the classroom simultaneously. In Johannesburg, they state, that the language of learning and teaching in the schools was English, with Afrikaans offered as compulsory second language in Grades 4-12. The Zulu language was offered as an additional subject only from Grade 4 and as an optional subject to replace Afrikaans. They view the position of English at the top of the hierarchy, followed by Afrikaans, an indication of the continuing post-apartheid language policies and ideologies. They admit that the dominance of English may be associated to its global position as a language of power that gives access to social and economic mobility. In an interview with a deputy principal, he mentioned that they would have a revolution if Zulu would be a source language. As a result, the researchers concluded that high proficiency in English is associated with academic ability and intelligence, to such an extent that learners have to sit for an English proficiency test and be grouped according to those results.

Johnson (2013:16ff) presents an orientation to language planning which postulates that linguistic diversity and multilingual education are resources for native and non-native speakers in that two-way additive bilingual education should benefit both contexts. He maintains that the language planning for colonizers has been intentional with colonial language policies that have ever changed the linguistic ecology of the world. He reports that most languages are at risk of extinction in the next 100 years. According to Johnson, revitalization of indigenous languages is the strongest weapon to overcome the dominance of colonial languages, which can effectively be taught in schools. Moodley (2009:23) contends that studies have narrowed the rejection of a multilingual context at the University of Kwazulu Natal which results from the stagnation of indigenous languages. In this kind of situation, society tends to hold on to old practices. He observed that in most educational institutions, the language status is still the same in that English continues to be the *modus operandi* as a language of learning and teaching, offered as First Language (L1), while Afrikaans takes second position as a Second Language (L2). Various other scholars have also researched the issue of bi-/multilingualism in education. The next section is concerned with perspectives of different scholars on bi-/multilingualism in education.

1.7.3 Perspectives on bi-/multilingualism in education

Kirwan (2014:189ff) proposes that increasing awareness of language diversity has been identified among teachers and learners, even in primary schools. He views this occurrence as a stimulating factor to children's language learning potential in supporting the affective factors that can permit learners to interact confidently with the target language. Kirwan adds that if a language is investigated, promoted and given a desirable status, that language will definitely stimulate the awareness of the use of language.

In agreeing with Kirwan, Otwinowska and De Angelis (2014:12ff) view multilingualism as a positive phenomenon, giving evidence that having two or more languages positively affects cognitive development and the process of acquiring additional languages. They present Hufeisen's (1998, 2005) proposed factor model based on linear acquisition order. He compares the acquisition of L1, L2, and L3 and concluded that factors already present in L1 are: *neurological factors* involved with general language acquisition, and *learner external factors*, considering the learning environment, type and amount of input. He adds that L2 learning involves *affective factors* which include motivation, anxiety, assessment of language proficiency, perceived closeness/distance between languages, attitudes, individual life experiences, and cognitive factors. Thus, language awareness, learning awareness, learner type awareness, learning strategies, individual learning experiences and prior knowledge of L1 are important. While L3 is further shaped by foreign

language *specific factors*, those include individual foreign language learning experiences and strategies, previous languages required, interlanguage of target language and the added prior knowledge of L2.

Sierens and Avermaet's (2014:205ff) examined monolingual education and multilingual education and pointed out that in monolingual education the home language has no place in the classroom, neither in the school and is not included in the curriculum. He states that supporters of monolingual education theorize that home language education will cripple development of proficiency in the language of schooling from immigrant underprivileged learners. This argument only prioritises educational success and the labour market. Conteh and Meier (2014: xv) postulate that multilingualism is ingrained in economic, educational and personal spheres of ordinary life. In contrast, Shin (2013:65ff) observed that even officially monolingual countries are highly multilingual. In Ghana there are 79 languages and five hundred in Nigeria, but English is the sole official language. On the other hand, the supporters of bi-/multilingual education argue with respect to three ways in which children benefit from mother tongue education. They believe that education in the mother tongue provides a more effective basis for learning the language of schooling than total immersion. Second, native language education would improve the wellbeing of children from migrant backgrounds by supporting positive identity construction which has positive impact on school results. Thirdly, native languages survive longer when used as languages of schooling.

Shin (2013:65) states that Kamwangamulu (2006) pointed out two types of bilinguals in Southern Africa: *elite bilinguals* referring those who in addition to their mother tongue, are highly educated in a foreign language. They constitute a minority social class made up of government officials, academics, and those in higher positions in business or the civil service. On the other hand *natural bilinguals* are those who are fluent in two or more indigenous languages and use them in their everyday communication. In Southern Africa, natural bilinguals form the majority. However, political power is in the hands of the elite bilinguals.

With regard to the pedagogical environment, Kirwan (2014) emphasizes the availability of classroom environment that promotes awareness of language and the way it works with the purpose of encouraging language exploration. In addition, this enables children to be in an environment where analyses are encouraged and valued and where their opinions and insights are affirmed positively. Secondly, Kirwan observed that teachers who are sensitive to the notion of plurilingualism and the value of additional language learning can raise language awareness. The implication is that teachers should be equipped with an understanding of the vitality of languages in

the life of the learner in their interpersonal communication and in their cognitive development as well.

Avermaet and Siren's (2014:204ff) argue that multilingual education is not the sole solution to language diversity at school. They investigated the differences between multilingualism of the educational elite (languages that are viewed as giving a high degree of cultural heritage) and multilingualism among children from immigrant homes whose languages are often not valued. They see multilingualism as an aspect of diversity within the educational programme. Avermaet and Siren also report that a Canadian psychologist Wallace Lambert introduced two new concepts, 'additive' and 'subtractive' bilingualism. They define additive bilingualism as the acquisition of a second language without losing the skills acquired in the first language, because society appreciates and acknowledges both languages as being equal. Subtractive bilingualism, on the other hand, refers to the situation in which the acquisition of a second language, often enjoying higher status threatens the first language and gradually replaces it.

In addition, Avermaet and Siren (2014:209ff) suggests five considerations in terms of research. Firstly, studies should begin at kindergarten until they switch to education given in the second language. Secondly, monolingual and bilingual education models should not be compared. They mention that different studies show evidence of advantages of bilingual education. Thirdly, there appears to be a theoretical problem. Fourthly, scientific research rested its emphases on the best model for all circumstances and learners without a combination of the two models. Fifthly, research based on types of programmes is mostly unrealistic. They concluded that monolingual, bilingual and multilingual models do have advantages and any model can be chosen in respect of the context in which it will function. Avermaet and Siren added that in monolingual and bilingual education the educational quality of schools and the educational success of pupils are determined by other factors rather than language education. According to their research, evidence showing a negative impact of bilingual education is rare.

Tedick (2014:159) defines bi-/multilingual education as instruction in (at least) two languages, and the use of those two languages as mediums of instruction for any part, or all, of the curriculum. He asserts that bilingual education serves both minority language and majority language speakers. He explains that majority language learners speak the majority societal language at home, for example, English speakers in Ireland, whereas minority language learners speak a non-dominant societal language exclusively or predominantly when they begin school, for example, Spanish speakers in United States of America.

Tedick postulate that in bilingual education, immersion education programs are subject-based language programs which provide at least 50% of subject matter instruction through the medium of the second/foreign/indigenous language throughout the primary school years. He observed that immersion programs share three primary aims: additive bi- or multilingualism (the addition of L2 at no expense to L1), academic achievement at, or above, grade level, and the development of cultural competence or cultural identity.

In an attempt to manage the diverse classroom situation Nagvi, McKeough, Thorne and Pfitscher (2012:501ff) propose dual-language book reading (DLBs) in culturally and linguistically diverse classrooms which they have been investigating for six years. They define DLBs as books that are written in two languages, typically English on one page and another language on the adjacent page. The procedure involves discussing principles and functions of DLB, reading sessions-two languages at a time, and analysis of the sessions. They argue that the approach allows and encourage the transfer of conceptual knowledge and skills across languages, promotes learners' cultural awareness, and promotes cognitive functions. Hence, they view home language as a unique cultural amplifier, a tool for the extension of cognitive functions.

With regards to multilingual and multicultural development, Bamgbose (2014:246ff) observed the importance of considering language a factor in developmental goals in developmental goals. He points out that no matter how development is defined, it cannot be achieved unless all participants take part in the process which requires reaching out to others in the language(s) in which they are competent. He also postulates that Africa has to consider the Human Development Index (HDI) in order to promote development in any sphere of life, i.e. education. Bamgbose identified language as the missing link in the attainment of development goals. He argues that development is not possible without language as long as that development is about people. They require communication, dissemination of information, sharing of knowledge, feedback and acquisition skills which cannot be achieved without language. There are different types of bilingual immersion programmes that scholars have investigated. Evaluations of different scholars have been presented in the view of multilingualism. The following section discusses models of bilingual immersion programmes.

1.7.4 Models of bilingual immersion programmes

Tedick (2014:159) proposes three types of immersion programs, namely “one-way immersion/foreign language immersion,” “two-way immersion” and “indigenous language immersion” programs.

1.7.4.1 One-way immersion (OWI)

One Way Immersion (OWI) programs serve a predominantly linguistically homogenous student population of majority language speakers (or speakers of one official language of a country). One-way program variations include time of onset and level of intensity, or the amount of instruction through the “immersion language”. Conteh (2014:135ff) provides an example of one-way model which is common in Europe and is termed Content and Language Integrated Learning (CLIL). This model is based on the understanding that learners have linguistic knowledge and experiences that can be activated for language learning and the understanding that learners can draw from on their wider linguistic repertoires for learning. In this model it is assumed that learners do not speak the immersion language as their first language, in contrast to two-way immersion education. They explain that the term content and language integrated learning (CLIL) is mostly associated with educational programmes such as bilingual education, immersion education, plurilingual education, content-based language education or language across the curriculum. Germany applies CLIL at secondary level for more able learners, while Spain takes a whole school approach beginning at primary level. Conteh observed teachers who teach French through CLIL in London and noticed that CLIL models sometimes attract families who speak the language of content instruction at home. These teachers hardly accommodate learners who are already fluent in French. In addition, bilingual programmes often separate the languages. CLIL and other bilingual models may not link other languages and develop multilingual, but two separate monolingual, competencies. Scaffolding and peer mediation are important concepts in CLIL. We will turn over to the second model of immersion program.

1.7.4.2 Two-ways immersion (TWI)

Two-way immersion (TWI) programs enrol a linguistically heterogeneous student population of majority and minority language speakers, for example, Spanish speakers and English speakers in the United States of America. Tedick (2014:160) asserts that this program theoretically encourages meaningful student interaction between the two groups of learners, provides exposure to peer ‘native’ language models and promotes positive intergroup relations. De Jong (2014:241) affirms that the TWI program is one type of bilingual or dual language education program that distinguishes itself by enrolling native or fluent speakers of each of the two languages in the program and by emphasizing the benefits of social and academic integration of diverse student populations. The third program of immersion is discussed below.

1.7.4.3 Indigenous language immersion (ILI)

Indigenous language immersion (ILI) programs were designed to support other language revitalization initiatives around the world. Indigenous immersion programs primarily serve learners who have indigenous or aboriginal ancestry, and their principal goal is revitalization of endangered native or aboriginal languages and cultures. Indigenous immersion programs may be one-way or two-way depending upon the student population, though the vast majority currently are one-way. In this section the three models of bilingual immersion have been presented and discussed. The next section presents types of additive bilingual/immersion models and two-way immersion programs, their goals, design, and outcomes.

1.7.4.4 Types of additive bilingual/immersion models and (TWI) program, goals, design and outcomes.

Tedick (2014:161) considers three types of additive bilingual/immersion models in terms of their underlying purposes. One is “maintenance” models that aim at the maintenance of the minority language of the student, strengthen the student’s sense of cultural and linguistic identity, and affirm their individual and collective ethnolinguistic rights. The second type is “enrichment” models associated with majority language learners, for example, L1 English speakers who use both their native and immersion language to process meaning on academic tasks. Last are “heritage” models, which are associated with indigenous language revitalization efforts but which also refer to programs focused on reclamation of a heritage language no longer spoken at home. Tedick insists that it is certainly possible for an immersion program to serve all three purposes, depending upon the student population.

However, Tedick noted that though the field of immersion education has enjoyed over four decades as a model that leads to additive bilingualism and academic achievement, many challenges persist. De Jong (2014:248) noted that besides program models, other program design issues affect outcomes, including program organization. He suggests that it is important to pay attention to the overall school environment and ways that it needs to support the mission of the TWI program in its organization and in building relationships among different programs in the school that respect TWI program goals. He adds that knowledgeable leadership and transformative styles of leadership have been important in implementing effective TWI programs and building such school-wide and school-community relationships. The general aim of TWI programs is to enrol a balanced number of ‘native English speakers’ and ‘native minority language speakers’. According to de Jong, many

TWI programs also have a policy that does not permit new learners to enter the program unless they can demonstrate sufficient fluency in both languages or at least in the minority language.

This section has considered the question of TWI program goals, design and outcomes. Following, is an investigation on classroom interaction in the three contexts discussed above.

1.7.5 Classroom interaction in one-way, two-way, and indigenous contexts

In this section I will discuss the kinds of classroom interaction best promote language and content learning in different immersion contexts.

1.7.5.1 Classroom interaction in one-way immersion education

One-way immersion classrooms are traditionally composed of learners from the same majority language background. For this reason, research has focused on determining how student-teacher and student-student interactions can directly lead to improved L2 acquisition and accuracy. In one-way immersion it was noted that learners generally developed high levels of receptive proficiency, they also produced grammatically inaccurate, lexically limited and sociolinguistically inappropriate language.

Ballinger, Lizette, and Palmer report that research indicated that teacher input during content instruction provides a limited amount and range of verb tenses and language functions. Therefore, they conclude that immersion teachers need to have both content and language objectives in mind when planning their classes to ensure their lessons provide opportunities for the use of all grammatical structures. Research showed that one-way immersion learners produced non-native like output and had limited opportunities for extended L2 output. So, learners are encouraged to use functional interaction that helps them notice their errors and the gaps in their L2 knowledge, and that makes them more aware of their own language production and of L2 learning opportunities. The three scholars argue that it is possible to teach learners how to interact in more collaborative and language-focused ways, for example, by using metatalk through teacher modelling. They found that metatalk training resulted in learners' engagement in more language related episodes (LREs), if used correctly.

1.7.5.2 Classroom interaction in two-ways immersion education

Ballinger, Lizette, and Palmer (2014:225ff) point out that though TWI programs aim to promote equitable educational outcomes for all the learners they serve, some research suggests that these contexts may end up rewarding one of their target populations more than another. For example,

Spanish-dominant learners in a TWI program were marginalized in classroom reading instruction, with lower reading and writing outcomes compared to their English-dominant counterparts. They argue that English dominance is a resurging issue in classroom interaction in TWI research. In TWI contexts which traditionally explicitly separate English from Spanish instruction, language is focused on standard registers. This can have an effect of spurning bilingual learners' home registers and hybrid language practices, potentially marginalizing and undermining their learning. Further, they reported that classroom norms in a TWI program silenced learners' expressions of their home dialects, thereby "implicitly reinforcing ethnocentrism and assimilation".

1.7.5.3 Classroom interaction in indigenous immersion Contexts

Ballinger, Lizette, and Palmer (2014:232) postulate that classroom interactions in indigenous immersion contexts are shaped by a history of language shift to linguistic and cultural marginalization and assimilation. These contexts involve power and status between the endangered and majority language; how culture influences interaction patterns and, by extension, indigenous children's success in mainstream schools and the role of community in the language enterprise. In the case of power and status they point out that immersion schools were created as sites for language revitalization though they have been used as means of assimilating and integrating indigenous people into a 'national' society and identity at the cost of their indigenous identity and social practices. Ballinger, Lizette, and Palmer (2014:232) suggest that communities must constantly resist further language shift while the language of dominance almost inevitably finds its way into the curriculum, the teaching materials and classroom interactions.

They postulate that indigenous and language minority learners are generally at a disadvantage in schools where content lacks cultural relevance and expectations of student behaviour conform largely to preferences of the majority. This happens where interaction patterns differ. In addition to educating future speakers of endangered languages, immersion schools often have strong communities, and interaction among parents, teachers, elders, administrators and youth enables immersion learners to use the language outside of the classroom in accurate ways. In the following paragraph, the revitalisation of indigenous languages through indigenous immersion education is discussed.

1.7.6 Revitalizing indigenous languages through indigenous immersion education

Hermes and Kawai'ae'a (2014:303ff) argue for the revitalization of indigenous languages through indigenous immersion education. They assert that an historical force that is influencing indigenous language revitalization is patterns of colonization. They state that indigenous programs exist in the

context of the widespread failure of colonial schooling. Indigenous immersion schools think of teaching from and through cultural viewpoints and knowledge systems. The scholars declare that culture is the driving force in indigenous immersion schools, though currently inhibited by state regulations, academic subjects and standardized testing. They further point out that many immersion schools are affected by the tension of the “western” curriculum. The cultural and linguistic survival of indigenous people can be comprehended by taking identity into account. In the next section, the nature and challenges of indigenous immersion program are discussed.

1.7.7 Challenges surrounding indigenous immersion education

Hermes and Kawai'ae'a (2014:308) explored characteristics and challenges surrounding indigenous immersion program. They first point out that indigenous program models are diverse and distinct to place, language, identity, culture and history with some common issues and challenges in the development and implementation of their models. The issues and challenges take into account shared community vision, legal status and government support, shortage of licenced teachers who are proficient in the target language, resources including facilities, lack of curricular materials and financial support, especially at the beginning. They also give examples of indigenous immersion program models such as Obinjwe immersion schools, Maori immersion, Hawaiian immersion and Hawaiian-medium education. The characteristics and challenges of immersion indigenous program have been presented. Perspectives on immersion pedagogy from other researchers as discussed below.

1.7.8 Perspectives on immersion pedagogy

Tedick and Lyster (2014:210ff) observed that to ensure comprehension in content-based input and instruction, experienced teachers rely on a wide range of instructional strategies that facilitate the learning of curricular content through the immersion language. They identified limitations of content-based input stating that content teaching on its own is not necessarily good language teaching because of the limited range of language forms and functions which it exposes to learners. They also assert that the extent to which immersion pedagogy entails the integration of language and content is seen to affect learning outcomes and yet is contingent upon a multitude of factors ranging from grade level and teachers' professional backgrounds to whether the language and content teachers are the same or different.

With regards to teachers' pedagogical experiences and perspectives, Tedick and Lyster (2014:218) observed that concerning classroom practice, teachers are the ultimate decision makers; everything they do is filtered through their prior experiences and knowledge to their beliefs, attitudes, and

perceptions. Hence, the perspectives of one-way and two-way immersion have brought various challenges to these teachers, especially concerning the integration of language and content. In the context of indigenous immersion, studies of teacher perspectives have tended to focus on the incorporation of indigenous cultural values and worldviews.

Escamilla and Hopewell (2014:181ff) investigated biliteracy in immersion contexts. They describe biliteracy as the development of reading, writing, speaking, listening and thinking competencies in more than one language. They point out that the globalised world demands the ability to communicate both across and within multiple languages and cultures in a variety of dynamic contexts. In their understanding, immersion programs share the foundational goals of language and literacy acquisition through content learning, cultural and cross-cultural competence. According to their report, bilingual education programs, in which learners are educated in two (or more) languages, mostly result in improved academic outcomes and increased opportunities to learn. They contend that although learners are exposed to two languages in their communities, they need a developed and enacted formal school-based bilingual education to complement with linguistic elements. Escamilla and Hopewell assert that formal bilingual education results in positive long-term academic achievement though they are not sure of the best way to deliver the instruction that will produce biliterate learners.

Shin (2013:97ff) is concerned about identity in bilingualism. He defines identity to be the ways in which people understand their relationship to the world, how that relationship is constructed across time and space, and how people understand their possibilities for the future. He postulates two types of identity, one being ethnic identity which refers to the behaviours, beliefs, values, and norms that define a person as a member of a particular ethnic group. The second is bicultural identity which refers to a situation where a person has proficiency in two languages. He states that identity has been theorized differently in various disciplines like sociology, cultural anthropology, psychology and education. He noted that when children who speak a minority language start school, they are often labelled as being deficient in the language of school, for example, “limited English proficient”. Their identification bases on what they cannot do instead of what they can. As a result, children feel disempowered and academic failures. Shin discusses how language and identity are constructed in the classroom. He states that negative attitude can discourage an individual or a group of people from speaking a second additional language, for example, the negative societal attitude toward English-speaking Malays which drives some Malays to hide their knowledge of English.

This section has presented models of bilingual immersion, classroom interaction in these models, the revitalization of indigenous language through indigenous immersion education, perspectives on immersion pedagogy and some perspectives on immersion pedagogy. The following section will discuss how language choice and code-switching is utilised in the classroom.

1.7.9 Language choice and code-switching/language alternation in the classroom

Makoe and McKinney (2014:661) define code-switching as the juxtaposition of elements from two (or more) languages or dialects. Shin (2013:137ff) explored language switching in the classroom. He points out that most language teachers are against code-switching because they assume that it distracts learners from learning the target language. As a result they promote an “English-only” rule. Shin postulates that total immersion in English is impossible in foreign classrooms, more so when all learners and their teacher share the same first language. He disapproves of this approach, as it makes teachers not consider contexts where the use of code-switching is appropriate. The one language rule prevents teachers from providing learners with effective instruction that builds on the learners’ knowledge of their mother tongue. Shin believes that code-switching is a useful communicative resource for bilinguals, hence, educators need to consider how learners’ other language(s) can productively be used within the educational context.

Conteh and Meier (2014:123), however, argue that since the principle of language alternation does not characterize all the approaches of bilingual education, this perspective reduces the field of plurilingualism practices in education and neither helps to capture the role of languages throughout the school subjects. Moreover, it does not help in communication, language/content acquisition and curriculum organization. The next discussion is concerned with the curriculum and assessment policy statement (CAPS) in South Africa.

1.7.10 The Curriculum Assessment and Policy Statement (CAPS) in South Africa

The Curriculum Assessment Policy Statement (CAPS) is a revision of the previous National Curriculum Statement (NCS). With the introduction of CAPS, every subject in each grade has a single, comprehensive and concise policy document that provides details on what teachers need to teach and assess on a grade-by-grade and subject-by-subject basis. This curriculum review has the aim of lessening the administrative load on teachers, and ensuring that there is clear guidance and consistency for teachers as they teach.

For the Western Cape Education Department, the Curriculum and Assessment Policy Statements (CAPS) contains the national curriculum for Grades 1 to 12 in public schools in South Africa.

Education authorities have introduced the CAPS over three years, as follows: 2012: Grades 1 to 3, and Grade 10, 2013: Grades 4 to 6, and Grade 11 and 2014: Grades 7 to 9, and Grade 12. The CAPS include greater specification of content, detailed teaching schedules and new content in some cases. Major changes have included greater focus on a second language in Grade 1, reducing the number of subjects in Grades 4 to 6 and greater emphasis on geometry in mathematics in Grades 10 to 12.

The general aims of the South African language curriculum are to give expression to the knowledge, skills and values worth learning in South African schools. Firstly, this curriculum aims to ensure that children acquire and apply knowledge and skills in ways that are meaningful to their own lives. In this regard, the curriculum promotes knowledge in local contexts, while being sensitive to global imperatives.

Secondly, the National Curriculum Statement for Grades R - 12 also serves the purposes of equipping learners, irrespective of their socio-economic background, race, gender, physical ability or intellectual ability, with the knowledge, skills and values necessary for self-fulfilment, and meaningful participation in society as citizens of a free country, providing access to higher education, facilitating the transition of learners from education institutions to the workplace, and providing employers with a sufficient profile of a learner's competences.

Thirdly, the National Curriculum Statement Grades R - 12 is based on the following principles:

- (i) social transformation, ensuring that the educational imbalances of the past are redressed, and that equal educational opportunities are provided for all sections of the population,
- (ii) active and critical learning, encouraging an active and critical approach to learning, rather than rote and uncritical learning of given truths,
- (iii) knowledge and skills, the minimum standards of knowledge and skills to be achieved at each grade are specified and set high, as achievable standards in all subjects,
- (iv) progression: content and context of each grade shows progression from simple to complex,
- (v) human rights, inclusivity, environmental and social justice: infusing the principles and practices of social and environmental justice and human rights as defined in the Constitution of the Republic of South Africa,

- (vi) The National Curriculum Statement Grades R – 12 is sensitive to issues of diversity, relating to poverty, inequality, race, gender, language, age, disability and other factors; valuing indigenous knowledge systems, acknowledging the rich history and heritage of this country as important contributors to nurturing the values contained in the Constitution, and
- (vii) credibility, quality and efficiency: providing an education that is comparable in quality, breadth and depth to those of other countries.

Fourthly, the National Curriculum and Assessment Statement Grades R - 12 aims to produce learners that are able to identify and solve problems and make decisions using critical and creative thinking. Learners should be able to work effectively as individuals and with others as members of a team, organise and manage themselves and their activities responsibly and effectively. They should be able to collect, analyse, organise and critically evaluate information, communicate effectively using visual, symbolic and/or language skills in various modes; use science and technology effectively and critically showing responsibility towards the environment and the health of others. They should demonstrate an understanding of the world as a set of related systems, by recognising that problem solving contexts do not exist in isolation.

The Curriculum and Assessment Policy Statement (CAPS) emerged after the Outcome-based education (OBE) model. According to Mahomed (2004:1ff), the curriculum transformation process in South Africa was initiated after the 1994 elections, and has been steadily implemented since then. He acknowledges that over a ten year period structures, processes and policies have been increasing to promote and implement the policy. In his view, this process has been a contribution to the deconstruction of Apartheid Education consisting of Fundamental Pedagogic and Anglo-American traditions, and has begun the process of reconstructing the curriculum to serve the needs of democracy and South Africa's twenty-first century needs.

Mahomed identified challenges that face curriculum transformation, one of which relates to teacher development and support. Teachers are challenged by providing for learning at different levels and through different learning styles of learners in the same class, the integration of teaching, learning and assessment. Teachers are not sure of assessment methods, tools and forms for learning activities and learning outcomes. They find it a challenge to teach multilingual classes and the combination of rural and township children. Teachers feel burdened with paper work when it comes to planning, designing, management, reporting and the recording of assessment in the classroom. Some educators are not sure of how to assess the variety of knowledge, skills, values and attitudes.

Mohammed asserts that many of the teaching and learning challenges also relate to classes being larger than the norms set by the government.

Another challenge is related to teacher development. According to Mahomed, educators express a need for training, managing scheduling challenges, and need for practical training that is relevant to their environmental contexts. Teachers are also open to classroom demonstrations by peers and/or district officials. The third challenge rests on learner performance which is assumed to be a result of different home languages accommodated in most classrooms. Educators struggle in the accommodation of all learner languages. Educators also need district support due to the demands made on them by the new curriculum. Resources are a challenge, starting from classroom size, school grounds, toilets, safe environment and textbooks. Further challenges discussed by Mohamed include parental involvement, teaching philosophy and methodology, social justice, human rights and inclusivity.

Mohammed made reference to the Gauteng province where, with regard to positive trends, there is increasing policy compliance amongst educators in implementing the new curriculum in the Foundation Phase (Grades 1-3). Learners are perceived to be more expressive, assertive and interactive in class.

Namabolo and Themane (2011) view the cause of the dilemma in curriculum implementation as a result of the South African child who lives in two worlds, the western world, which is promoted by the school and his own, African world, which he finds at home. Therefore, Namabolo and Themane see curriculum as a social contextual process and urge teachers to accommodate divergent views that learners bring to a classroom. They understand that curriculum and assessment policy aim to provide a coherent, systematic content and knowledge to satisfy the specific aims of the curriculum. Their suggestion is for a “paradigmatic” shift in terms of accommodating divergent cultures that all learners and teachers bring along to the classroom. They observed that most of the indigenous knowledge that learners bring along to the classroom is still regarded as invalid and illegitimate. For example, teachers still see a dichotomy between school knowledge and everyday knowledge, especially if it emerges from the previously disadvantaged groups of African language learners. The major concern rests in the curriculum where home language is assigned fewer hours of teaching than English (a second language), which is the medium of instruction and also taught as a subject. This chapter will conclude with a summary that states the general implication on the curriculum for language in teaching and learning.

1.8 SUMMARY: GENERAL IMPLICATIONS OF THE CURRICULUM FOR LANGUAGE TEACHING AND LEARNING

In the above discussion, it has been stated that the main aim of this study is to investigate a contextual and effective approach to learning and teaching of writing in Siswati as a first language, assuming that genre-based properties for writing in Siswati can be transferred across the curriculum. The aim of the research is therefore, of direct concern to the objectives of the national language-in-education policy, as already discussed.

CHAPTER TWO

THE RATIONALE AND PROPERTIES OF GENRE-BASED TEACHING/PEDAGOGY

2.1 INTRODUCTION

The purpose of this chapter is to present a review of previous research on genre-based literacy and language teaching as discussed in section 2.2. This chapter also investigates work of linguistic scholars on the basis of the genre-based approach to writing across the curriculum. Some issues, frameworks, and propositions towards genre will be considered together with work of various authors. The views from the five sources are inter-related. Before that, earlier approaches to curriculum are discussed which are crucial to understanding the need for a new approach to teaching and learning.

2.2 EARLY APPROACHES

According to Cope and Kalantzis (1993:1) the traditional curriculum was officially abandoned in Australia in the 1970s due to some negative educational reasons. Traditional grammar became a critical element in literacy for its emphases on formal correctness and its characteristic of being teacher-oriented. This pedagogy was rejected by the progressive pedagogy which by the 1980s was also criticised for its emphasis on process (natural learning) over content. It was not producing any remarkable improvement in patterns of educational attainment. Instead, it made the teachers' jobs harder as this pedagogy was student centred. Therefore, recent researchers have explored how a genre approach to literacy can transform the way writing is taught. A genre approach to literacy teaching is concerned with the way language works to make meaning.

In South Africa 11 languages are recognized as official languages and the first statement in language in education policy for 1997 states that with regard to the new constitution of the Republic of South Africa, the government and the department of education recognises the cultural diversity in the country and the government takes responsibility in the promotion of multilingualism, the development of official languages, and respect for all languages used in the country, including South African Sign Language and languages in the South African Constitution. It is also stated that the underlying principle is to maintain home languages while allowing effective acquisition of additional languages, suggesting that an additive approach to bilingualism has to be implemented. However, the language(s) of instruction in most South African schools is either English or Afrikaans. The dominant language is English in the instruction of content subjects to learners whose

first language is not English. With this background, something has to be done in the implementation of the South African language in education policy and curriculum in order for other approaches to function properly. In the following sections recent approaches to literacy are discussed.

2.3 RELATED APPROACHES TO GENRE PEDAGOGY

Christie and Derewianka (2008) state that they recognise work done by other scholars such as Halliday, Knapp and Watkins (2005) and Martin and Rose (2008), and they argue for the need to trace the writing developmental trajectory from age 5 or 6 through 18, using systemic functional grammar and the appraisal theory involving contextual texts. They suggest a study that involves different curriculum areas, across a range of genres, considering the context where the genres are produced. They opt for four developmental phases in learning to write: 6-8 years of age, 9-12, 13-15, and the last 16-18 years and beyond. Christie and Derewianka (2008:6) point out that success in one stage is dependent on the field of knowledge involved in that linguistic resources are employed differently in each field of study. Their analysis is established on the whole text, exploring the relationship between linguistic form and the meaning realized by those forms in context.

Following their observation that the quality of writing instruction makes a difference only for successful learners, Christie and Derewianka (2008) suggest five principles for writing programs that include both general principles and principles based on developmental phases. Christie and Derewianka (2008) emphasize a democratic writing instruction¹.

Rose and Martin (2012) discuss in 'Genre, Knowledge and Pedagogy in the Sydney school' the social and educational contexts. They postulate that genre pedagogy effectively embraces each member of the learning community and provides learners with access to resources necessary to participate more equally. This work has a concern in two directions 'Knowledge about language' (KAL), which refers to effective teaching that provides learners with explicit knowledge about the language in which a curriculum is written and negotiated in the classroom. The other course relates to 'Knowledge about Pedagogy' accumulated over the course of the entire project, which shall be discussed in this study.

Martin and Rose (2008) posit more resources for text analysis. They observed that genres can be studied in terms of their relations; hence, they extend an invitation to examine relations among genres and they argue for the notion of macro-genres. Knapp and Watkins (2005:17) suggest

¹ Christie and Derewianka (2008:244) state that it is not easy to master the skills of writing and yet all children have the right to knowledge about writing. The solution is for teachers to teach functional grammar that can help them guide their learners effectively as they learn to write.

practical ideas for teaching and assessing genres and grammar of writing across the curriculum. They introduced the genre-based approach to teaching writing at all levels. They posit that the relationship of genre, text and grammar as technologies for teaching and assessing writing will provide learners with the ability to use the codes of writing genres and grammar effectively and efficiently. Their argument is strongly based on genre-based pedagogy and systemic functional linguistics methodology of using grammar within the teaching of a genre, rather than in a prescriptive way. Knapp and Watkins (2005:41-74) present a list of grammatical forms, definitions and examples, together with some pedagogic principles.

Feez and Joyce (1998) researched writing skills, where they provided a comprehensive study of narratives and non-fiction text types. Their aim was to demonstrate how grade 7 to 10 learners can write texts clearly and systematically. For each text they offered the purpose, a model text, essential elements and overall design, analysis of structure and relevant technical knowledge, including grammar and vocabulary. They argue that genre-based teaching of writing skills is ideal for writing activities in the classroom.

All these scholars argue in favour of genre pedagogy even though they take different approaches, they also agree about specific assumptions.

2.4 THE GENRE CONCEPT

Knapp and Watkins (2005:21) state that the term genre has been used for a long time and its definition has been theorized from a range of perspectives. Christie and Derewianka (2008:7) define genre as 'social processes for achieving purposes within the culture'. Rose and Martin (2012:1) maintain that genre is a 'staged goal-oriented social processes'. Martin and Rose (2008:20) point out that the fundamental definition of genre is that of configurations of meanings realized through language and modality of communication. Knapp and Watkins (2005:24) explain what genre, as a social process, means in the context of education. Knapp and Watkins (2005:21)² state that their approach to genre refers to the language processes considered in doing things with language.

Genre also referred to types of texts that learners wrote in the Sydney school. Genre-based literacy is an approach employed in teaching writing within Systemic functional linguistics (SFL).

According to Rose and Martin (2012:2), the teaching strategies that were designed to teach learners how to write through the curriculum in Australia³ became known as 'genre-based pedagogy' which

² Knapp and Watkins (2005:27) present a diagrammatical representation of the model for generic process essential for school learning.

³ Rose and Martin (2012:2-3) explain as to why Australia was chosen for the study.

is now **genre pedagogy**. Cope and Kalantzis (1993:1-20) provide a summary for the genesis of genre.

Knapp and Watkins (2005:31) posit that it is difficult to teach grammar in the absence of genre and functions. Grammar is more than a set of rules for correctness. In this section the concept of genre has been explained. Next follows a review of the functional approach to writing development.

2.5 THE SYSTEMIC FUNCTIONAL LINGUISTIC APPROACH TO WRITING DEVELOPMENT

Christie and Derewianka (2008:4) have analysed learners' texts Within the Systemic functional linguistics framework. Christie and Derewianka (2008:4) state that SFL is based on functional studies of the mother tongue realized in genre that has to be taught explicitly to equip learners so that they perform competently at school and beyond. According to Christie and Derewianka (2010), a functional model allows us to explain how contextual shifts impact a child's developing grammatical system. Unlike traditional grammar, the SFL model includes 'the relationship between linguistic forms and the meanings realized by those forms in context'⁴.

In discussing SFL, Rose and Martin (2012:18) explain that SFL is functional with regards to three perspectives:

1. the twin function of language for speakers, writers and readers to interact with each other, and to represent their experience to each other;
2. the social contexts of language use, including relations between speakers, writers and readers and the activities they can be involved in;
3. the relation between the language system and the actual texts we speak, read and write.

Christie and Derewianka (2008:6-7) provide a theoretical framework for the functional theory of language, which is discussed in the next section.

2.5.1 A theoretical framework for teaching literacy across the curriculum

The framework draws from Halliday and Matthiesen's (2004) functional theory of language. Christie and Derewianka (2008:6) postulate that the general assumption of the theoretical framework is that SFL theorizes language in terms of the relationship between the meanings being made in a particular context and the linguistic resources which have evolved to realize those

⁴ Johns (2002:24) gives a clear explanation on critical aspects of context.

meanings. Christie and Derewianka (2008:6) point out that linguists using the SFL model consider contexts related to linguistic demands made on children and linguistic resources that learners need to develop to be successful in such contexts⁵. They develop the notion of context at two levels: the context of culture and the context of situation. These contexts are discussed below.

2.5.1.1 Context of Culture⁶

According to Christie and Derewianka (2008:6-7), the context of culture takes us back to the notion of genre which is concerned with the organization of a text in order to achieve its social purpose within a culture. These purposes are realised as **genres**. For example, the purpose of explaining is to account for how or why things are as they are, realized in an explanation genre with the elements: {General statement ^ Implication sequence ^ (Reorientation)}⁷. In genre, the stages form schematic structures. The following overview presents a model explanation demonstrating all stages.

Model explanation

Social purpose	To explain scientifically how technological and natural phenomena come into being
General statement	Budding
Logical steps/Sequence	In budding, the farmer chooses a bud from the parent plant he or she has decided to use. This bud is to be inserted on the rootstock (also called just 'stock') of another healthy plant. The bud from the rootstock is first removed by making a T-shaped cut. The bud, together with its bark, is then slipped under the exposed bark of the rootstock, to unite the vascular bundles of the bud with those of the rootstock. The two are then joined together using a special tape and wax. The tape is removed after a few days, when the joining has been completed.
Reorientation	Budding methods commonly used are the inverted T method, patch budding and clip budding.

⁵ Thomas (1995:5-12) in his book 'Meaning in interaction', discusses problems related to assigning sense and reference meaning in context. The whole book provides an idea of aspects to consider in learning about language.

⁶ Hasan (2011:256) emphasizes that the social institution of education should be considered as a part of culture in order to play a remarkable role in the whole design of life in a society.

⁷ When something is in parenthesis it is optional.

Section 2.2 explains what Rose and Martin (2012:1) mean by context. Martin and Rose (2008:10) pose a question as to whether we should model the relation between text types and their contexts at the level of situation or of culture. Since each genre can be written and read in different situations, they opt for the latter though they see a need to reconsider Halliday's model of situation. Knapp and Watkins (2005:18) state that they limit their technical understanding of language to a classroom context considering the medium of writing. They are concerned that there is too wide a gap between context and grammar. Feez and Joyce (1998:3) also assert that purposes and language used in texts vary according to the context where texts are from. The following tables illustrate key genres in terms of social purpose, and description of stages in the Australian setting. For the sake of space, schematic structures will not be displayed as they are similar to the stages except for the symbols added as seen in the example given in an explanation genre. In the use of genre approach, teachers need to know the types of genres they expect their learners to read and write. In classifying genres, Christie and Derewianka (2008) took from previous works and grouped genres according to three subjects: English, history and science.

2.5.1.2 Context of culture and context of situation

The context of culture is concerned with types of genres which are social processes for achieving purposes within the culture. For example, each culture has a specific way of narrating stories. With regards to context of situation Christie and Derewianka (2008:7), postulate that it involves three contextual variables namely, *field* (what is going on?), *tenor* (who is involved?) and *mode* (what role does language play? (listening/reading)). The combination of these three variables is considered as *register*, which refers to the way language is understood as used in a particular context and culture. For example, the field may be agricultural sciences or history. Hence, Schleppergrell (2009:1) defines academic language as a set of linguistic registers that construe multiple and complex meanings at all levels and in all subjects of schooling. The people involved, with their roles and relationships, are described as the tenor while mode has to do with whether a genre/text is spoken or written. In the following section are key genres that are written in school are discussed.

2.5.2 Overview of curriculum areas and key written genres⁸ across the curriculum of schooling (Christie and Derewianka 2008)

2.5.2.1 Writing Stories in the subject English

Genre type	Social purpose	Description of stages
Narratives and Recounts	Written for entertainment and for pleasure, and as contributions to verbal art and response genres, written to appraise and respond to other texts.	<i>Narratives</i> Orientation: introduces character(s) in a setting of time Complication: introduces a problem Evaluation: where a response or reflection is provided Resolution: where the problem is solved
		<i>Recounts</i> Orientation: provides information about the situation Record: presents events in temporal sequence Reorientation: Optional stage bringing the events into present
Personal response	Outlines one's immediate feelings or simple attitudinal response to a text.	Response/ Evaluation: offers response to and observation of the text at hand and these two elements simultaneously
Reviews	Involve retelling of events in the text including evaluation of its qualities.	Context: provides crucial contextual information about the text Text description: introduces characters and some plot Text judgement: provides the writer's conclusion about the text
Character analysis	Involves the evaluation of character(s) in a text	Character presentation: introduces the particular character Character description: offers a description of the character by offering interpretative details Character judgement: offers final judgement about the character
Thematic interpretations	Consider the abstract reflection on texts and their values	Thematic interpretation/ Preview of elements: the main theme is stated and evidence to be examined is indicated Element evaluation: brings a discussion of arguments in support of the theme Reiteration of Theme: offers confirmation of the whole theme

⁸ Unsworth (1997:30) is defended by Christie and Derewianka (2008) in the notion of subject areas realised in different genres. Unsworth stresses that each curriculum area has different structures and features such that if children are not aware of the differences, they will get stuck in their journey of literacy across the curriculum.

2.5.2.2 a) Writing to respond to and evaluate other texts (Chronological) – History

Recount of personal experience	Recounts recent personal events, Sequences incidents in chronological order	Orientation: provides information about the situation Record: presents events in temporal sequence Reorientation: Optional stage bringing the event to the present
Empathetic autobiography	Involves children in writing emphatically about lives of individuals or groups in history	Orientation: provides relevant information about the situation of individuals or groups Record: presents events in temporal sequence
Biographical recount	Considers crucial events in the life of a historical figure	Person identification: offers general introduction about the person stating why the person is of interest and mostly locating the person in time and space Episodes: describes significant episodes from the person's life (is recursive) Evaluation (optional): offers final evaluation of the person's significance and role play
Historical recount	Registers a sequence of important past events	Orientation: provides information about the situation Record with causal links: presents historical events in temporal sequence with causal links
Historical account	Does not only record events in a historical sequence, but also identifies causal links	Background: offers information about the situation Account sequence: offers a sequence of past events and causal links Deduction: offers evaluation of the significance of the outcome
Site studies	Indicate considerations by professional historians to prove the existence of the past in time and place	Site identification: states the site Site description: outlines descriptive details
Period studies	Describe human activity in a particular segment of time focusing on giving characteristic details of the phenomena or activities in a particular time.	Period identification: identifies the period in question Description: describes habitual activities of inhabitants of that period. Note: Most period studies do not have Period Identification.

b) Writing to respond to and evaluate other texts (non-chronological – History)

Site interpretations	Indicate considerations by professional historians to prove the existence of the past in time and place They provide an assessment of the historical significance of items examined in the site	<p>Site identification: states the site</p> <p>Assessment of evidence: provides some assessment of the historical significance of items examined in the site and is recursive as evidence is given more than once</p> <p>Conclusion: this is expressed in provisional terms as such genres are concerned with elements that are not easy to make conclusions.</p> <p>Outcome: establishes the historical phenomenon to be explained</p> <p>Factors: recursive as different factors are involved</p>
Factorial explanations	Consider several factors that are seen to be a cause of a particular outcome	<p>(Reinforcement of factors): may conclude the text</p> <p>Input: indicates the particular cause</p> <p>Consequences: recursive results of a phenomenon</p> <p>Reinforcement of consequences: may have a conclusion</p>
Consequential explanations	Have to do with a particular factor that has many consequences	<p>(Background): provides contextual information about the relevant historical period and/or some key figures.</p> <p>Thesis: states the general proposition to be argued.</p> <p>Argument: is recursive as there are several arguments in support of the Thesis given.</p> <p>Reinforcement of thesis: reasserts the Thesis in the light of the arguments provided.</p>
Historical expositions	Argue for a particular proposition taken and persuade the reader to accept it	<p>(Background): provides relevant contextual information</p> <p>Issue: shortly states the issue to be considered by summarising the competing views about it.</p> <p>Perspectives: provides a recursive series of arguments from different perspectives so that various views are foregrounded</p> <p>Position: the writer takes sides about the Issue, considering the different perspectives reviewed</p>

Historical discussion Used in a debate on two or more sides of an issue before making a conclusion

2.5.2.3 a) Observing and writing about the Natural World (Science)

Procedural recount Observing and recording of phenomena
Aim: clearly states the purpose of the scientific experiment including advice about materials or equipment to be used
Record of events: reveals what was done in an accurate ordered way
Conclusion: reveals what was established

Demonstration Establishing and affirming a principle or law
Introduction: states the purpose of the experiment and reveals the scientific principle or law to be demonstrated, indicating materials or equipment needed with steps to be taken
Demonstration record: offers the results obtained
Discussion: presents a discussion of the results in a way that reaffirms the principle or law that has been demonstrated

Field studies Investigating and documenting phenomena
Introduction: provides background information about the field and sources of concern or problems. Indicates what is to be investigated and its importance
Field features: offers information about the field site, i.e. factors of natural environment
Results: discusses matters observed
Conclusion: summarises with recommendations for action
(References): provides sources of information used in the study

b) Interpreting phenomena of the Natural World (Science)

Descriptive and Classifying reports Identify a set of features of some object or phenomena and describe each of these features
General statement: establishes the thing or entity involved, mostly using technical language to identify the class to which it belongs.
Description: provides a description of the entity or phenomenon which differs according to the field of knowledge being construed.
(References): indicates sources of information used.

Sequential, factorial and causal explanations	Account for why things are and also give an explanation or logical steps in a process	Phenomenon Identification: states the phenomenon of interest. Explanation: a <i>sequential explanation</i> explains some phenomenon by establishing the sequence or order in which things occur in different phases, i.e. the process of harvesting and storing corn. A <i>factorial explanation</i> explains a set of related factors responsible for the phenomenon, involving different phases, i.e. factors contributing to soil erosion. A <i>causal</i> explanation explains how and why some unobservable abstract phenomenon occurs and outlines causes for it, i.e. earthquake.
Discussions	Discuss an issue and provide more than one point of view	Issue: the main issue is identified Arguments: offer arguments in favour of the statement Recommendation: suggested solutions are given

2.5.2.4 Other written genres

Genre	Purpose	Stages
Anecdote	Shares an emotional reaction	<ul style="list-style-type: none"> ● Orientation: ● Remarkable event: ● Reaction:
Exemplum	Judges character or behaviour	<ul style="list-style-type: none"> ● Orientation: ● Incident: ● Interpretation:
Protocol	what to do and not to do	<ul style="list-style-type: none"> ● Purpose: ● Rules:
News Story	presents recent events regarded as “newsworthy” or of public importance.	<ul style="list-style-type: none"> ● Lead: provides newsworthy information about the events ● Key Events: provides background information about events or story ● Quotes: provides commentary from relevant sources about significance of the events.
Conditional explanation	provides causes and effects	<ul style="list-style-type: none"> ● Phenomenon ● Explanation

Compositional report	Describes parts of wholes	<ul style="list-style-type: none"> • Classification • Description: parts
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Christie and Derewianka (2008) agree with Feez and Joyce (1998) and Knapp and Watkins (2005), that story genres are realised through recounts and narratives. Christie and Derewianka's (2008) stories differ in that, while recounts have an orientation and record, a narrative includes a complication followed by an evaluation and resolution. 'Writing to respond to and evaluate other texts' applies to almost all subject areas. They divided the historical genres into two groups: chronological and non-chronological genres which are indicated in different tables. Concerning scientific genres, Christie and Derewianka (2008) focused on interpretative genres. They point out that outside school, scientists depend on findings that provide data with which to construct a report that classifies, describes and explains. They state that many scientific genres rely on scientific evidence collected without experimental procedures as most scientific phenomena cannot go through the experimental process. Rose and Martin (2012:130) assume most of these genres, which they categorised into seven groups: Stories, histories, explanations, procedures, reports, arguments and text responses. Martin and Rose (2008) divided genres into stories, histories, reports and explanations, and procedures and procedural recounts. They posit that stories function in local communities while histories are event oriented genres that construct and maintain social order. Moreover, their histories are derived from stories. They also add 'news stories'. Martin and Rose (2008:130-131), classified genres in terms of their differences and likeness. They agree with Christie and Derewianka's (2008) argument that science facilitates the controlling of the natural world. In procedures, Rose and Martin (2012) include the protocol genre.

Knapp and Watkins (2005:97-220) defended Feez and Joyce's (1998) classification of genres and grouped them into five families: describing, explaining, instructing (procedure), arguing and narrating. They further classified some of the genres into personal, common sense and technical/scientific. Feez and Joyce (1998) postulated narrative and non-fiction text types. Christie and Derewianka (2010:28) posit that English, history and science subjects serve as a foundation for tracking the developmental trajectory of writing of learners, using genres related to each subject, as already outlined. The main implication of the work by Christie and Derewianka (2008) and others is that genre needs to be taught in a systemic functional approach by initiating learners into subject specific literacies in context rather than with social processes. In the teaching of genre, Christie and Derewianka (2008) also assume the notion of register which is a general idea of Knapp and Watkins (2005). The term **register** shall be discussed in more detail below.

The above discussion on types of suggested genres serves as sufficient evidence to the argument that teaching through texts/genres is a functional strategy in educational contexts and is worth exploring. The following section will discuss the basic elements in genre pedagogy.

2.5.3 Genre pedagogy

Christie and Derewianka (2010:238-244) argue for a framework for planning writing programmes in all subjects across the years of schooling in 4 phases. The phases are guided by the following principles:

1. Learning to write should be understood in developmental terms across all the years of schooling;
2. While responsibility for teaching knowledge about language rests with the English programme, teachers of other subjects should be encouraged to use in their teaching selected knowledge of language as well;
3. Teaching of writing should focus on genres to be written, selected for their relevance to the areas of knowledge to be covered, building a strong sense of the language resources in which these genres are realized, and hence, also building a repertoire of knowledge and skills for subsequent work;
4. A metalanguage for talking about, interpreting, playing with and critiquing written language should emerge in the first years and be pursued in later years; use of a metalanguage is essential in terms of building a consciousness about language, and teachers must constantly make decisions about when to introduce it most productively. Rose and Martin (2012:235) argue that in their work, knowing about language has to do with building up a metalanguage that educators can employ in the analysis of texts, in planning and delivery of lessons, and in assessment;
5. The metalanguage involved should slowly build across the years, using selected traditional and functional terms;
6. Teachers should use their own understanding of the various developmental phases to monitor children's progress, challenging them to move in new directions and supporting them where adequate progress does not seem to be made.

Christie and Derewianka (2008) and other scholars, i.e. Feez and Joyce (1998), Knapp and Watkins (2005), Martin and Rose (2008) and Rose and Martin (2012) have the same view concerning genres being based in the context of situation.

2.5.3.1 General perception of the context of situation

Christie and Derewianka (2008:7) agree with Knapp and Watkins (2005) that there are three contextual variables⁹: field, tenor and mode. The **field** of experience refers to what is going on, i.e. the subject matter. In a school context language choices differ according to the curriculum area and the topic. The **tenor** refers to roles and relationships with others in whatever situation, i.e. who is involved. Tenor includes the audience considering the status, age, ethnic background and gender. It also involves frequency of meetings, roles taken by people at work, in the community and at home. The most relevant relationship in this study is between teacher and student. Derewianka (2012:132) points out that in writing; one must be sensitive to the needs of an unknown reader, using language that the reader will understand. The **mode** refers to the channel of communication, such as speaking or writing - what role is language playing? The functional approach makes a distinction between spoken and written language. In some cases, teachers may use diagrams, tables, videos, gestures and tone. All these elements make up the text.

Field, tenor and mode together constitute the **register** of a text. Christie and Derewianka (2008:7) point out that with the register; there are particular language choices to be made from the language system. They observed that resources in the language system are organised into three metafunctions: the **ideational** function of language, which is concerned with the combination of clauses and the construction of lexical relationships, the **interpersonal** metafunction of language which is concerned with interacting of participants, and the **textual** metafunction of language, which deals with the formation of coherent and cohesive texts. Christie and Derewianka further divide the interpersonal metafunction into the experiential metafunction, i.e. how language organizes experience, and the logical metafunction, i.e. logical relations between elements. Hasan (2011:291-300) discusses functionalism as the main principle of the system of language. Cope and Kalantzis (1993:144-145) also explore the organisation of context and grammar.

This discussion on register and metafunction sets to demonstrate the relationship between language and context. Genre in the classroom is discussed in the following section.

⁹ Martin and Rose (2008:11) give a clear and more detailed explanation of contextual variables.

2.5.3.2 The Australian genre-based pedagogy

Rose and Martin (2012:305) point out that ‘the inequality of outcomes has become dysfunctional in a changing socio-economic order, creating pressure on schools and teachers to improve literacy’ through knowledge of language and knowledge of pedagogy. They observed that the inequality originates from participation in learning activities of school, in classroom learning and individual reading. They identify inequality with different childhood experiences in parent-child reading, stating that not all children are born with learning capabilities but are oriented towards learning. Parent-child reading has been ignored and yet this habit prepares a child for academic activities. In most cases, top learners are the most involved in classroom activities, average learners have some engagement, while failing learners are the least engaged. Rose and Martin (2012:305) provide hierarchies of success and failure, inclusion and exclusion. In genre-based pedagogy, inclusive learning takes place through activities as discussed in the next section.

2.5.3.3 Pedagogic activities and sequences of activities

Rose and Martin (2012:305) emphasize that inequality of outcomes is also a result of teachers failing to teach all learners the reading and writing skills that they need to complete all aspects of the curriculum. In this case, top learners are the ones acquiring skills at each stage. Rose and Martin (2012:305) point out that this is an unacceptable situation because learners are evaluated on what they have acquired in preceding stages. As a solution to the problem, they designed five phases of learning activities:

1. Prepare;
2. Focus;
3. Task;
4. Evaluate;
5. Elaborate.

The task is the central element, for which the teacher needs to prepare the learner, keep him/her focused and evaluate the task. Rose and Martin (2010:306) state that some learners may not have enough experience in an expected genre, field and language resources to create successful texts, while others may. The implication is that teachers need to be careful in the way they evaluate learners’ texts. The evaluation should be one that is helpful to the learner, rather than discouraging. Teachers are also urged to do thorough preparations for each task and to remember that children use

resources from home¹⁰. Rose and Martin (2012:307) assert that in genre pedagogy the learning activity is based on ‘**guidance through interaction in the context of shared experience**’. Thomas (1995:14) states that comparatively few ambiguous sentences are genuinely misleading when taken in context. In language we have homographs (head/head) and homophones (son/sun) which can be confusing to learners when taken out of context. Rose and Martin (2012) provide a teaching-learning cycle (TLC) to help teachers improve their pedagogic practices. Candlin (1996:100-102) postulates that both intrinsic and extrinsic motivation is necessary in the classroom.

2.5.3.4 Reading to learn program: The teaching¹¹-learning cycle (TLC)¹²

Rose and Martin (2012:65) present a teaching-learning cycle that was designed and refined to help teachers guide their learners in successful writing of school genres. The cycle consists of four stages and has been adapted in a table, presented below. According to Unsworth (1997:89), the teaching-learning cycle in the genre-based approach to writing was already developed by 1989. The TLC is presented on Table 2.1 below:

¹⁰ Martin and Rose (2012:15-17) postulate two types of knowledge: horizontal and vertical. Teachers need to be aware so that they are not tied to teacher centred education. Children do not start school with blank minds. Horizontal knowledge refers to knowledge that one acquires from informal learning like every day experiences while the latter is divided into two types. The first one is gained from structured bodies of knowledge, what we find in books and is termed sciences. Humanities are horizontally structured like in the interpretation of texts. Martin (2006:16) provides more information on the structure of knowledge. Martin adds that SFL view grammatical metaphor as the main tool for the construction of vertical discourse. Traditional pedagogy is more concerned with teaching only on the side of educators, constructivist education stresses on learning while genre-based literacy pedagogy was designed to encourage teachers to use teaching and learning strategy (Rose and Martin 2012:81).

¹¹ Chirimba C.P. (2009:125) brings general teaching skills.

¹² Rose and Acevendo (2006:32-34) offer a clear discussion on ‘Closing the Gap and Accelerating Learning in the Middle years of Schooling’. Rose (2011:84) highlights that the Reading to Learn methodology comprises learning and teaching model that is applicable in all educational contexts. Rose and Acevendo (2006:38-39) explain the steps taken in the LR: RL curriculum cycle. The steps can be summarised as: Preparation before reading, Detailed reading, Preparing for writing, Joint rewriting, Individual rewriting and Independent writing.

Table 2.1: Later language and social power project teaching/learning cycle: Adapted from Rose and Martin (2012:65).

Approximation to Control of Genre

1. Negotiated Field Text	2. Deconstruction		3. Joint Construction		4. Independent Construction of Text		
Before deconstructing a text we need to identify: 1. What the field is 2. What part of it we will be exploring 3. What the learners already know about it 4. What experiences, activities will be part of the exploration 5. How we will organize and record information from the activities	Context of Culture What is the social purpose of this genre? Who uses it? Why? Context of Situation What is the register? i.e. field, tenor, mode,	Text 1. What are the functions of the stages 2. What are some of the language features? 3. How do we know what the text is about? 4. What is the relationship between the writer and the reader?	Preparation How do we prepare for the joint construction of the new text? 1. By building up field information through research 2. Use guideline questions to scaffold activities including observations, interviewing, film and video viewing, reading, note-taking	Construction Teacher guides the learners in jointly constructing a new text in the same genre	Preparation for independent writing of a text in the same genre (as for joint construction)	1. Individual writing of text in same genre in draft 2. Consultation with teachers and peers about writing 3. Editing, reworking of writing 4. Critical evaluation of success NOTE: Consultation with teacher and peers may occur during or after a draft. It may also include aspects of editing, etc.	Critical Literacy Learners use the genre to challenge ideology, theory and practice

According to Rose (2012:308), writing pedagogy in the Reading to Learn program¹³ integrates reading and writing with curriculum teaching throughout the years of schooling. The main purpose

¹³ Rose (2006:1-2) points out that schools are to blame for not being able to deliver explicit knowledge to learners that are advantaged and disadvantaged and stresses that the RL:LR program equip teachers with scaffolding strategies in reading and writing across the curriculum throughout the academic life. Rose argues that equality in educational achievement is not based on biological differences but on their different abilities in learning from reading which has its roots in reading orientations at home and extends to school where the gap widens. Rose suggests that reading should be a central activity in classroom teaching because in formal education, learning is based on reading. For this reason, home prepared children tend to excel in independent reading. Rose also points out that children are not equipped with skills that they require in their early years of schooling and yet skills for academic study consume six years of continual practice in high school for successful learners. Rose and Acevedo (2006:32-44) offer a clear discussion on 'Closing the Gap and Accelerating Learning in the Middle Years of Schooling' drawn from the program *Learning to Read: Reading to Learn* which aimed at achieving success in closing the gap between successful and non-successful learners between 5-9 years. Rose (2011:84) highlights that the Reading to Learn methodology which is comprised of learning and teaching model is applicable in all educational contexts.

Rose and Acevedo (2006:38-39) explain the steps taken in the Learning to Read: Reading to Learn Curriculum Cycle. The steps can be summarised as Preparation before reading, Detailed reading, Preparing for writing, Joint rewriting, Individual rewriting and Independent writing.

of this program is to prepare all learners to read curriculum texts and to use the knowledge they gain in their readings. The program includes nine sets of learning activities and three degrees of scaffolding support at the level of texts, paragraphs, sentences, word groups and words, which is represented in figure 6.8 in Rose and Martin (2012:309). Rose (2006:6) presents an Initiate-response-feedback (IRF) cycle which teachers need to adopt because it builds positive learner identities for successful learners. Feedback or affirmation builds self-esteem for a learner. Rose (2005:142 and 161) states that in RL, scaffolding supports all learners doing the same high level tasks while giving more support to the weakest learners and provide six degrees of scaffolding support.

The 'learning to read, reading to learn' (LR: RL) (2003-2004) Research Report by Culican presents advantages of the LR:RL literacy pedagogy. Childs (2008:39-44) discusses the characteristics of the LR:RL theory.

2.5.3.5 Pedagogic modalities

Rose and Martin (2010:309) postulate that genre-based pedagogy establishes a relationship between pedagogic modalities including spoken, written, visual, and manual modalities to maximise the effectiveness of learning activities. They state that spoken discourse is wisely designed to involve all learners in reading and learning tasks. The modalities are integrated in a detailed reading cycle.

2.5.3.6 Pedagogic modalities in a detailed reading cycle:

1. Prepare orally: the learners read words or sentences;
2. Focus: the teacher focuses learners' visual attention to words;
3. Identity: the learners identify the written words;
4. Highlight: the words manually;
5. Elaborate: the meanings of words are orally elaborated by the teacher and learners.

Pedagogic modalities direct attention and enhance perception. Rose and Martin (2012:313) state that the three dimensions of pedagogic practice correlate with the three variables of register which they call modalities of the contents of schooling. This is not all about genre pedagogy. Genre also requires a re-contextualisation process which is discussed in the next section.

2.5.4 Re-contextualisation

It is necessary for any new invention, idea or pedagogy to be re-contextualised in order to function in favour of the tenor, field and mode involved in that particular culture and situation. There is also a need for teacher education, which is discussed below.

2.5.4.1 Designing meta-pedagogy

Rose and Martin (2012:321) express a concern about quality of teacher education; otherwise designing effective classroom pedagogy will not be of benefit if teachers have no access to it. In most cases, training at college or university is mostly theoretical so that future teachers are not well equipped to face classroom reality. For example, activities given to teacher training learners do not match with the real classroom situation outside the university. Teachers must be like drivers on the road, who are always in a world full of surprises. Genre pedagogy does both, designing of pedagogy and re-contextualising for the classroom. For the sake of readers who are interested in refining their teacher training strategies, Rose and Martin (2012) present the following guidelines:

2.5.4.2 Four phases for professional learning

Rose and Martin (2012:322) identify four phases of professional learning:

1. knowledge about language and pedagogy;
2. lesson planning;
3. classroom implementation;
4. assessment of learners' growth.

Rose and Acevedo (2006:42-44) explain how to implement the LR: RL project under the following headings:

1. Teacher professional learning which has been mentioned above;
2. Selection of target learners;
3. School-based support;
4. Collection of school, teacher and learner data;
5. Development of print and DVD resources;
6. Establishment of a networked learning community;
7. Teacher reflection and evaluation.

As assessment is vital in professional learning, Knapp and Watkins (2005: 93-96) propose a framework of assessment given in the next section.

2.5.4.3 The framework of assessment

In discussing assessment, Knapp and Watkins (2005:93) argue that ‘the genre and grammar approach proposed offers an objective approach to assessment based on the particular generic, structural and grammatical features of genres’. The assessment methodology uses particular categories for all genres with the following headings:

1. Generic features;
2. Textual language;
3. Syntactical language;
4. Spelling.

Knapp and Watkins (2005:96) point out that it is not possible for a teacher to use this framework successfully if he/she is not acquainted with all the properties about different genres. There is more in genre, as seen in the next section.

2.5.4.4 Genre relations

Martin and Rose (2008:235) raise concern about how to define genres because in one text it is possible to find different genres. They suggest that we need to focus on the topology (likeness) more than typology (differences) in order to classify such genres. Similar genres share the same meaning. Martin and Rose (2008:240) provide a table with configurations of meaning across generalised recount, historical recount and policy genres.

2.5.4.5 Macro-genres

Martin and Rose (2008) are concerned about the teaching of relations between macro-genres. Macro-genres are short genres or extracts from longer texts that make up larger texts. They are normally present in long texts like reports, explanations, and procedures. Rose and Martin (2012:331) highlight those longer texts having complex social purposes, within an overall goal that take multiple genres to accomplish. There are other ways in which genres can be classified, i.e. according to their typological or topological state.

2.5.4.6 Typology and topology

According to Martin and Rose (2008:131), **typology** refers to the classification of genres in terms of their differences. For example, recounts can be divided into those dealing with individuals (autobiography and biography, depending on person) and those dealing with groups (historical recounts). **Topology** refers to the grouping of genres according to their similarities, i.e. in history

there are four recount genres namely: personal recount, autobiographical recount, biographical recount and historical recount. Topology is a functional key for evaluation i.e. when teachers want to see how close a student text is to one that is ideal in a particular field¹⁴. In the following section, a framework of genre-based model of language is presented.

2.5.4.7 Theoretical framework of a Genre-based model of language

Knapp and Watkins (2005) produced a comprehensive text that is grounded within a genre-based pedagogy and systematic functional linguistic methodology. The fundamental perception of this model is grounded in the view that language is construed and understood in the form of texts. Hence, Knapp & Watkins (2005) aim at familiarising teachers with a genre-based approach to writing in five genres that are challenging in terms of assessment. Knapp and Watkins (2005:14) wrote, 'Learning to write is a difficult and complex series of processes that require a range of explicit teaching methodologies throughout all the stages of learning'. Knapp and Watkins (2005) add that speech and writing are two different entities even though they are both forms of communication that employ the medium of language. Therefore, teachers and learners need to have a basic understanding of how English operates and functions in writing and the differences between speech and writing. The primary concern of this approach is to create a relationship between genres, text, and grammar.

In this model, texts are always produced in a context as mentioned in earlier discussions on systematic approach. **Text** is defined as any completed act of communication, i.e. a television advertisement, a novel, or a film, and more. They observed three types of texts: *literary texts* are those used for interpretation and those that involve everyday experience while *factual texts* are those that are used for the purpose of education. Those that are used in mass communication are *media texts*, i.e. print broadcasting, cable, film, and video. These texts can employ different modes of communication such as writing, speech, pictures or sound or all of the above. Learners need the writing skills presented next, in order to produce successful texts.

2.5.5 Writing Skills: Narrative and non-fiction text types

In regard to teaching writing, Feez and Joyce (1998) argued that knowledge of different kinds of texts, their overall patterns or structures and purposes is a comprehensive approach to learning how

¹⁴ Martin (2006:28) outlines a pathway which demonstrates a series of steps that lead learners from the spoken genres they take to school through the written genres that should be assessed and used for school examination purposes.

to write effectively and competently. They also suggest characteristic language components for each kind of text.

2.5.5.1 Narratives

According to Feez and Joyce (1998), narratives tell stories which are:

1. about a person or a group of people overcoming problems;
2. show how people react to experiences;
3. explore social and cultural values;
4. entertain an audience.

Feez and Joyce (1998), argue that the overall design/macro-level of narratives functions as the basic pattern and model of narrative texts with the following stages:

1. **Orientation** – characters, when, where, who, what and why;
2. **Complication** – where the reader encounters a problem and the characters are faced with a surprise;
3. **Evaluation** – where the story teller comments on the events giving significance to the story. This part generates interest in the reader to know what happens to the characters, in other words, it creates suspense;
4. **Resolution** – where the problem is solved;
5. **Coda** – concludes the story with a brief comment on what happened or with a comment about life ever after.

Feez and Joyce point out that all narratives should have an orientation and a complication with evaluation and a resolution. The complication is the cornerstone of the narrative. It is the main reason for the story to be written or told. The coda is optional. Christie and Derewianka (2008) argue that while recounts have an orientation and record, a narrative includes a complication followed by an evaluation and resolution.

Feez and Joyce (1998) postulate the following characteristic language components of narratives:

1. simple past tense;
2. past perfect tense or past in the past, *had ploughed* or *had eaten*;
3. past continuous tense or present in the past, *was cultivating*.

2.5.6 Non-fiction text types

Feez and Joyce (1998) posit that the purpose of a personal response is to show how a person responds to literature or art. They observed three stages in a personal response:

1. **Orientation** – which informs the reader what a person is responding to and prepares the reader for what is going to be said;
2. **Text description** – tells the reader about the text a person is responding to which may be the events in the story or about the structure of the text;
3. **Comment** – this offers a personal reaction to the text.

The typical language components of a personal response are stated as follows by Feez and Joyce:

1. Give one's point of view in the first person such as *I, me, my*;
2. Name parts of the work and other things;
3. Use thinking and feeling verbs to show one's thoughts and feelings like *I think, I felt*.

2.5.6.1 Personal response

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2.5.7 Review

Feez and Joyce (1998) claim that reviews are concerned with works of literature, art and entertainment. They involve the value of these works to society and whether people will be

interested in them. They attempt to convince the reader to agree with the reviewer. They also try to entertain. The purpose of a review is to assess the value of a work of literature or art.

Feez and Joyce propose the following stages in a review text:

Text description – which gives an introduction to the main characters and describes them

1. **Context** – which informs the reader about the social situation the characters are in, presenting the actions and offers a brief summary of the major incidents;
2. **Judgement** – a stage where the reviewer presents a judgement of the text and gives a recommendation.

The language components of reviews are stated as follows by Feez and Joyce:

1. Use *present tense* - to talk about characters and incidents which continue to exist;
2. Use *linking verbs* - being and having to talk about attributes and to give points of view in:
 - a. the context stage where the text is introduced;
 - b. the text description stage when presenting characters;
 - c. where judgement is given;
3. *Nouns* - are used to name parts of the text and other things that are part of the writing;
4. *Evaluation words* - are employed to make the reader agree with the writer's reaction to the work, this should show a person's assessment.

2.5.7.1 Interpretation

Feez and Joyce describe an interpretation as a text written to interpret messages in works of art and literature. The purpose of an interpretation is for a person to prove that he/she can perceive and explain the messages which writers or artists express in their works. They identify four stages of interpretations:

1. **Text evaluation** – that presents messages to be interpreted;
2. **Text synopsis** – that repeats the overall story of the text. Feez and Joyce point out that the inclusion of quotes is essential at this stage, to reinforce the messages in the text;
3. **Reaffirmation** – that goes back to the message under interpretation and supplies extra information about it;
4. **Reaction** – where a personal response is given to the text.

The language components of an interpretation are stated as follows by Feez and Joyce:

1. Use the universal present tense to talk about characters and incidents;
2. Linking words are used to give value to aspects of the work;
3. Words which show consequence are employed to link the actions of the characters to the message of the book, such as
 - a. Conjunctions: *because*;
 - b. Prepositions: *as a result*;
 - c. Adverbs: *consequently*;
4. Use nouns that name parts of the text and other things connected with the writing.

Feez and Joyce offer some recommendations on writing an interpretation:

1. note taking;
2. summary of the story;
3. notes about characters and their interactions;
4. record of remarkable events;
5. quotes as supporting evidence, which can be done by placing the quote as a separate paragraph or place the quote in the middle of a sentence.

2.5.7.2 Critical response

According to Feez and Joyce, the purpose of a critical response is to analyse and evaluate the message in a work of literature or art. They caution critics to be careful about the selection of evidence to support their arguments. Responses should be genres that are acceptable within the school curriculum. Three stages of a critical response are presented:

1. **Text evaluation** – gives the message of the text and issue a challenge;
2. **Text deconstruction** – demonstrates how the text construes its message;
3. **Challenge to text evaluation** – which communicates to the reader that something is not going well.

Feez and Joyce did not provide language components for the critical responses genre.

2.5.8 Recounts

Feez and Joyce posit three groups of recounts, i.e. writing about the past:

1. Biographical recounts - what happened in the past focusing on an individual's life;
2. Historical recounts - what happened in the past, considering groups of people who lived through a historical period;

3. Historical accounts- show and evaluate past happenings.

2.5.8.1 Biographical recount

Feez and Joyce describe the author of a biographical recount as a biographer who does the following:

1. chooses a person who has played a remarkable role in history;
2. selects events from the person's life which illustrate the significance of that person's life;
3. writes about the person's life organising the selected events in the order of occurrence;
4. evaluates the person, his/her life and place in history.

The overall design of biographical recounts:

1. **Orientation** – gives a reason why the person is being written about and tells the reader *who* the story is about, *when* it took place and *where* it is located. This stage presents the main character, setting or place, time and behavioural situation;
2. **Record of events** – offers the events of the person's life in their order and bundles them together into segments of the person's life;
3. **Evaluation of person** – evaluates the person's life.

The language components of biographical recounts:

Feez and Joyce argue that biographies are written all the time in:

1. the past tense;
2. the third person using words like *he, him, he or she, his or her*;
3. phases of time, i.e. the *beginning*, the *middle* and the *end*;
4. the present perfect tense or the past in the present is used in the evaluation stage, i.e. *he has been criticized*;
5. uses attributes that include an adjective.

Feez and Joyce (1998) point out that since a person's biography has great influence on readers, the biographer has to:

1. select particular events from the person's life;
2. use the events as evidence in the record of events stage.

Feez and Joyce state that biographical recounts should include judgements and evaluations, which are accompanied by the *authority* of the expert; *evidence* used where there is lack of support from authority, *judgement* or evaluation and a *reference* to point the judge and the year of publication.

2.5.8.2 The historical recount

Feez and Joyce suggest that the purpose of a historical recount is writing about what happened in the past, focusing on groups of people who lived through a historical period. They can be found in academic textbooks, encyclopaedias, newspaper feature articles, supplements and other reference books.

The overall design of historical recounts

Feez and Joyce state that the stages of a historical recount differ from those of other recounts because a historical recount considers the whole historical period in the lives of individual people, not selected events:

1. **Background Stage** – provides summaries of previous historical events, including background to the events in the recount in order to understand the historical period;
2. **Record of events** – orders events in time;
3. **Deduction** – judges and evaluates the significance of the whole period.

Model of a historical recount

Feez and Joyce posit that historical recounts are about events and incidents that occurred over many years, decades or even centuries and bundle them together into historical periods i.e. ‘Colonial Australia’. In other words, historical recounts are written in the past tense.

Concerning the **topics of history**, Feez and Joyce assert that the title of a historical recount mostly tells the reader what the recount is about and reflects the following:

1. a particular period of time;
2. a particular nation;
3. the people who lived in that nation in that period.

In addition, the topic can give information about:

1. the leaders of groups of people;
2. conflict between groups of people, i.e. war;

3. systems for interaction between groups of people, such as economics, politics, law, religion;
4. history employs specialised words whose meanings has to be learnt.

Organising time

Feez and Joyce postulate that a historical recount is organised according to a sequence in time by employing time markers in the beginning of sentences, in topic sentences at the beginning of paragraphs. They suggest specific ways of writing about time:

1. Packaging time which refers to packaging meanings for an easy follow up. Clauses can be used in packaging time by first packaging a time clause to a time phrase by changing events into names, which changes verbs into nouns, i.e. cultivate- cultivation;
2. Events can be bundled into segments of time and each segment can consist of a beginning phase, a middle phase and an end phase.

2.5.8.3 The historical account

Feez and Joyce (1998) propose that a historical account is written to tell about what happened in the past in order to explain why the events happened, and to make a general statement about a historical pattern. They observed three stages of a historical account:

1. **Background stage** – gives summaries of previous historical events, which are the background to the events in the account which helps the reader to understand the historical period;
2. **Account sequence stage** – orders events in time and offer links which reflect when one event resulted in another event. Hence they employ more reason conjunctions, verbs and nouns;
3. **Deduction stage** – judges and evaluates the significance of the events of the whole period.

In addition, it is recommended that in order for the historian to provide good evidence, and make the causes clear that their general statements should appear to be factual, not opinions – objective, not subjective.

In summary, historical accounts:

1. are written in the past tense;
2. sequence events over time;
3. explain why events followed one another over time;
4. evaluate periods of history.

2.5.9 Procedure

According to Feez and Joyce (1998), the purpose of a procedure is to show how to do something. They explained three stages of a procedure:

1. **Aim** – states the purpose and predicts the possible results, i.e. *preparing porridge*;
2. **Materials** – refers to the list of apparatus or equipment required and the substances or objects being investigated, i.e. *a pot, water, salt, mealy meal salt, wooden spoon*;
3. **steps** – lists the actions in order that are necessary to complete the experiment or procedure.

Feez and Joyce state that each step appears on a separate line and that each step is written as a command.

The language components of procedures

Feez and Joyce claim that:

1. Usually the action verb comes at the beginning of the sentence:

Pour water into a pot;

2. Sometimes the sentence begins with a time marker which tells us the order of steps:

First pour salt and put the pot on a hot stove;

3. Sometimes the sentence begins with a word, phrase or clause which tells us *when* to do the step:

When the water starts boiling, mix mealy meal with water in a small dish;

4. Sometimes the sentence begins with a word, phrase or clause which tells us *how* to do the step:

With a wooden spoon stir in the mealy meal mixture until it starts boiling again.

Feez and Joyce posit that procedures use four parts of a noun group for accuracy:

1. the **pointer** which indicates exactly which thing it is;
2. the **classifier** which tells us what type the thing is;
3. the **thing** which tells us what the noun group is about;

4. the **qualifier** which gives extra details about the thing, including measurements and dimensions.

For example,

a 1kg bag of avocados

a= Pointer, 1kg= Qualifier, bag= Classifier, avocados= Thing

2.5.9.1 Procedural recount

Feez and Joyce (1998) postulate that procedural recounts are used to record a procedure. They offer four stages of a procedural recount:

1. **Aim** – states the scientific purpose;
2. **Record of events** – gives a list of actions that took place;
3. **Results** – presents the outcome of the experiment;
4. **Conclusion** – offers the findings of the experiment.

Feez and Joyce highlight that the conclusion is very important. It is essential to mention if an experiment does not have results then the author needs to give the reasons for it in the conclusion.

The language components of a procedural recount

Feez and Joyce claim that a procedural recount uses:

1. universal present tense, i.e. *fire burns*;
2. action verbs in the conclusion stage are written in the present tense;
3. packaging nouns made from verbs because they package many actions into one word i.e. *saturate- saturation*;
4. thinking verbs with no tense and in the past tense, action verbs in the past tense and present tense.

Feez and Joyce assert that personal recounts use the **active** voice, i.e. *We harvested sixty bags of peanuts*.

Impersonal recounts use the **passive** form of the verb, i.e. *Sixty bags of peanuts were harvested*.

2.6 EXPLANATIONS

According to Feez and Joyce (1998), there are two types of explanations namely sequential and consequential explanations.

2.6.1 Sequential explanations

The purpose of a sequential explanation is to sequence the phases of a process or to show how and why the phases occur in that order. Feez and Joyce (1998) point out that it is more useful to draw a flow diagram before writing a sequential explanation because it helps in sequencing events and bundle them into phases, i.e. *evaporation*.

The stages of a sequential explanation:

1. **Phenomenon identification** – tells what is being explained;
2. **Explanation sequence** – offers a description of a sequence of related events.

Feez and Joyce maintain that sequential explanations are basically written as a sequence of related events and sometimes includes cause and effect links. Moreover, it is obligatory for a sequential explanation to have an explanation sequence stage, even if the phenomenon identification stage is not included, if what is being explained is already obvious.

The language components of sequential explanations

Feez and Joyce (1998) conclude that sequential explanations employ action verbs in the **present tense** because they explain the way processes always happen, i.e. The sun shines during the day.

Feez and Joyce point out that the present tense is sometimes called the **universal present tense** as it is used to talk about things that always happen.

The Language of explanations

Feez and Joyce claim that explanations will use some of the following features:

Linking devices for sequencing:

1. conjunctions, i.e. *then, next*;
2. dependent time clauses beginning with conjunctions, i.e. *when, as*;
3. time phrases, i.e. *during the day*;
4. phase verbs, i.e. *begins to*;

5. noun groups of sequence, i.e. *the next step*.

Linking devices for showing cause and effect:

1. conjunctions, i.e. *thus, since*;
2. dependent clauses with the linking word *because*;
3. cause phrases beginning with *because of* and *due to*;
4. cause verbs, i.e. *leads to, causes*;
5. cause nouns, i.e. *consequence, factor*;
6. change of state verbs, i.e. *becomes, and turns into*.

Devices for pinpointing location

Devices for pinpointing location are phrases of place, i.e. *at the top, along the edge*

Devices for being accurate and technical:

1. complex nouns with qualifiers of accuracy, i.e. *the water on the side of the river*;
2. technical verbs and packaging nouns for compressing meanings into one technical word, i.e. *plantation*.

2.6.2 Consequential explanation

Feez and Joyce (1998) state that the consequential explanation explains reasons or consequences of an occurrence.

The overall design of consequential explanations

A. Explanation of reasons

1. **outcome:**
 - a. identifies the outcome;
 - b. gives any necessary background;
 - c. previews the reasons.
2. **Reasons:** explains the reasons for the outcome by ordering the reasons from the most important to the least important.

3. **Review:**

- a. reviews the reasons;
- b. sometimes evaluates the reasons.

B. Explanation of consequences:

1. **explain the occurrence:**

- a. identifies the occurrence;
- b. gives any necessary background;
- c. previews the consequences.

2. **consequences:** explains the consequences for the occurrence by ordering the consequences from the most important to the least important

3. **review:**

- a. reviews consequences;
- b. sometimes evaluates the consequences.

The language of explanations has already been stated in 2.2.3.1.

2.7.1 Reports

Feez and Joyce (1998:121) state, 'reports give information about things in general. They focus on one kind of thing - the topic- and talk about the way all of this kind of thing is all the time'. They mention that school reports are used to organise and store knowledge and information. They propose two types of reports: descriptive and taxonomic.

2.7.1.1 Descriptive report

Feez and Joyce observed that the purpose of descriptive reports is to identify a set of features of some object or phenomenon and describe each of these features in turn. They present two stages of a descriptive report:

1. **General statement** – introduces the topic of the report;
2. **Description** – information about the topic is divided into sections.

Feez and Joyce articulate that the writer has the responsibility to decide how to order the sections. The sections of descriptions can be ordered from the most important to the least important or from the most general to the most specific and detailed.

The language used in reports

Feez and Joyce posit that reports exhibit the following characteristic language components:

1. General nouns which once chosen should be kept the same as the report unfolds;
2. The **universal present tense** which shows that something is always or was always true, it may be called **timeless**. However, the report may be on how things were, meaning that the tense has to be in line with what is being reported;
3. Place phrases;
4. Prepositions;
5. Noun groups,
 - a. pointers, i.e. *two*;
 - b. describers, i.e. *big*;
 - c. thing, i.e. *trucks*
 - d. qualifiers, i.e. *at the edge of the bridge*.

In addition, verbs should correspond with nouns, for instance, if nouns are in the singular form, verbs are expected to be singular, i.e. *the plants are growing*. *The plant is growing*.

Feez and Joyce propose that it is good to take notes in a mind map as a way of organising information.

2.7.1.2 Taxonomic report

According to Feez and Joyce (1998), a taxonomy is a system which organises information into a whole framework of categories such that the framework helps conserve the information. They claim that taxonomic reports describe the parts of a group or system and present two types of taxonomies:

1. Taxonomies which group things as **parts and wholes**;
i.e. parts of the whole – *kitchen*; and **whole** – *house*;
2. Taxonomies which group things according to **type or class**
i.e. class- *vegetables* and **members of the class-** *potatoes*.

The overall design of taxonomic reports

Feez and Joyce postulate two stages of a taxonomic report and highlight that the stages are the same as those of a descriptive report:

1. General classification of class:

- a. Names the general class or unit being described, i.e. *carbohydrates*
- b. Predicts the types or parts to be described in the report and introduces technical terms.

Most of the time it includes a definition, e.g. *Carbohydrates are energy-producing organic compounds containing carbon, hydrogen, and oxygen, i.e. starch.*

2. Description: each type or part is described

The Language of taxonomic reports

Feez and Joyce observed that the language of taxonomic reports does the following:

- Uses technical terms, i.e. *mammals*;
- Defines the class/whole;
- Organise information into categories - topic sentences to introduce each part, linking verbs, describing noun groups, verbs related to the topic;
- Presents information as being true all times using the present tense;
- Includes describing sentences which use being and having verbs relevant to the topic;
- Refers to the topic in general using general noun group;
- Bundles a lot of information into noun groups.

Feez and Joyce propose that a taxonomic report consist of three layers:

1. The first paragraph states the theme of the topic of the text;
2. The first topic sentence of each paragraph states what the paragraph will be about;
3. The first words of every sentence refer to the topic of the paragraph and offer more information.

2.7.2 Arguments

According to Feez and Joyce (1998), arguments are used to persuade people. Arguments are won by using facts and evidence rather than appealing to emotions. The language used to persuade people is

referred to as *rhetoric*. They propose three types of arguments: exposition, discussion and challenge.

2.7.2.1 Exposition

Feez and Joyce postulate that an exposition is used to argue for a particular point of view.

The Overall design of expositions

Feez and Joyce argue for three stages:

1. **Thesis** which introduces the issue and the writer's point of view;
2. A series of **arguments** support the thesis;
3. A **restatement of the thesis** is a stronger and more direct statement of the first thesis in the initial stage.

Feez and Joyce claim that arguments contain any factual information, evidence, description or explanation which supports the thesis. Sometimes expositions begin with a **background** stage which provides any information the reader needs in order to follow the arguments.

2.7.2.2 Discussion

According to Feez and Joyce, the purpose of discussions is to discuss both sides of an argument.

The overall design of discussions

Feez and Joyce present four stages of discussions:

1. an **issue** stage which introduces the issue and summarises the debate;
2. **arguments for one side**;
3. **arguments for the other side**;
4. **recommendation** or **judgement** which is presented as the most logical conclusion.

Feez and Joyce describe arguments as including any factual information, evidence, description, or explanation which supports the side being argued. Sometimes discussions begin with a **background** stage which provides any information the reader needs to follow the arguments.

2.7.2.3 The challenge

In line with Feez and Joyce (1998), the purpose of challenges is to challenge or argue against another person's point of view. They posit three stages of challenges.

The overall design of challenge

1. **a position challenged** – stage introduces the point of view the writer wants to argue against;
2. **arguments against;**
3. **anti-thesis** – is presented as a logical conclusion.

Feez and Joyce mention that challenges are often used when people write letters to the editor of a newspaper.

The language of arguments

Feez and Joyce postulate that the language of arguments does the following:

1. Introduces arguments and viewpoints – Arguments are introduced and sequenced using linking devices such as *first, furthermore, on the other hand, in conclusion, although, after looking at both sides of this debate*;
2. The language focuses on the topic and organises arguments with topic sentences – The topic occurs in the topic sentences and frequently occurs at the beginning of sentences;
3. Explains, describes and uses evidence in arguments – These resources are used to make the arguments more ‘factual’ and therefore more powerful;
4. Uses technical terms and abstract ‘packaging’ nouns – These add to the factual quality of the arguments;
5. Shows cause and effect – which are shown with words like *lead to, contributes to, the consequence, cause*;
6. Judges and evaluates –The texts include judgements and evaluations;
7. Assesses degrees of what is probable or usual – through words like *must, never, and inevitably assess how probable or usually something is*;
8. Attributes assessments to expert sources, i.e. *Commercial farmers claim.....*
9. Appeals to the reader – with words like *it seems obvious that, it is vital that*;
10. Uses ‘objective’ language – Opinions are made to sound ‘objective’ using expressions such as *it seems obvious that, it can be seen that*;
11. Uses emotional or colourful language – to persuade the reader, i.e. *forever, depend for their survival, terrible, disasters, will die, and destroy*.

This section had presented the structure and language components in writing genres postulated by Feez and Joyce (1998). The next section discusses the concept of discourse analysis.

2.7.3 Discourse analysis

Christie and Derewianka (2012:6) agree with Feez and Joyce's (1998), Knapp and Watkins' (2005) and Martin and Rose's (2008) on the observations that each genre employs linguistic resources in a different way. Rose and Martin (2012) presents more views on grammar (words and structure). Schleppegrell (2009: 27) maintains that learning science means developing new ways of thinking about the world through investigations that describe, model, predict and control natural phenomena. Christie and Derewianka (2008) consider linguistic resources based on the three metafunctions, not just grammatical terms. They analyse genres at both sentence level and beyond the clause. The resources are those available for a particular field in a specific context of culture and situation. Rose and Martin (2010:21) point out that knowledge about language involves three levels: discourse, grammar and phonology. The grammatical features discussed by these scholars are included in Christie and Derewianka's (2008) functional model of grammar. The next section discusses SFL grammar as being functional.

2.7.4 Language as Functional¹⁵

Christie and Derewianka (2008:6) also make the assumption that linguistic resources differ from field to field and subject to subject as hinted in section 2.5.1.2. They agree with Knapp and Watkins (2005:31) that SFL considers how the genres themselves demand grammatical choices available in the production of a text, while traditional grammar was concerned with syntax or the order of words in a sentence. It has already been stated that the context of situation involves the field, tenor and mode in a specific culture. A functional model allows us to find resources that are available to represent the ideational function, the interpersonal function and the textual function of language. The following resources are identified:

(i) **Resources for representing 'What's going on' (Ideational metafunction)¹⁶**

In discussing the functions of language, Christie and Derewianka (2008) maintain the notion that language resources are defined according to the three metafunctions. They further consider language at clause level and beyond the clause¹⁷. Resources at this level relate to our experience of

¹⁵ Hasan (2011:137-138) posit that every language is a functional system. He further explains about the three functions of language.

¹⁶ The ideational meaning of language represents experience, i.e. classifying products as primary and secondary. They consider lexical words from sentence to sentence, i.e. repetitions, similarities and contrasts (Rose and Martin (2012:20).

¹⁷ Rose & Martin (2012:270) and Martin & Rose (2008:30-31), interpret discourse as meaning **beyond the clause**. Meaning gathered across texts is termed **discourse**. They observed six systems of meaning at discourse level: periodicity, conjunction, identification, ideation, appraisal and negotiation. Negotiation is only added by Rose and Martin (2012).

the world. This world has ‘doings’ and ‘happenings’, we engage in processes like writing, which involve a number of participants who *think* and *feel*, together with all the surrounding circumstances such as *when? where? how? why? whose? who?* According to Christie and Derewianka (2008:11), these resources form a system of *transitivity*.

Representing experience beyond the clause level involves how clauses can be combined using conjunctions to have equal dependency - *and, but* - and unequal dependency - *while, when* clauses.

(ii) Enabling interaction (The interpersonal function of language)

Language plays a great role in the establishment and maintenance of relationships with those around us. When analysing the interpersonal function¹⁸ of language, Christie and Derewianka (2008:15) point out that the Hallidayan tradition considers resources for making statements, asking questions, giving commands and making offers (the mood system) which have to do with the oral mode. Hence they opted to consider meanings beyond the clause. They state that learners tend to involve expressions of personal feelings and emotions in evaluations of behaviour and phenomena based on educational norms.

Beyond the clause, we engage with our listeners or readers and in our communities where we occupy different roles and express our feelings, attitudes and ideas. Christie and Derewianka (2008:15) consider patterns of evaluating all of these. Their analysis draws from Martin and White’s 2005 Appraisal theory which has recently been developed from SFL, building on Halliday’s elements of attitudinal lexis and modality. Christie and Derewianka (2008) observed that in the early years of the curriculum, learners rely on personal feelings while later; learners are encouraged to appreciate and evaluate qualities of texts, things and feelings. The appraisal system has three resources which are **engagement, attitude** and **graduation**. There are also textual functions of language.

(iii) Textual function of language: Theme and rheme, cohesion and coherence

When analysing the textual function of language, Christie and Derewianka (2008:19- 24) are more concerned with theme and rheme at clause level while beyond the clause its cohesion and coherence. These contextual elements play a role in choices made from the language system and to the texture of a text.

Knapp and Watkins (2005:8-20) discuss some text components.

¹⁸ The interpersonal meanings involve interaction such as asking for information and giving information, adopting the roles of seeking for or giving knowledge and evaluating (Rose and Martin (2012:20).

Christie and Derewianka (2008:23) assert that learning to make a text internally cohesive and independent of any supportive setting is a significant challenge for young learners accustomed to being assisted in the construction of meaning. They state that even late adolescents face the same kind of challenge. Christie and Derewianka proposed another linguistic resource – **grammatical metaphor**, which needs to be taught. In discussing grammatical metaphor, Christie and Derewianka (2008) state that their focus is on nominalization which involves grammatical metaphor. They explain that nominalisation has to do with the construction of meanings in nominal forms, e.g. *construct - construction*. Christie and Derewianka (2008) added another linguistic resource which is **lexical density** the number of items in a text. Choices made on linguistic resources depend on the transitivity system, clause combinations, the mood system, the appraisal system, cohesion, grammatical metaphor and lexical density. These language resources shall be discussed in the next chapter.

2.7.5 Terminology

Considering the discussion on language resources, it is evident that the use of terminology is quite different from the one teachers are familiar with in traditional grammar. For example, resources for representing what is happening employ functional terms: processes, participants and circumstances which are primarily concerned with meanings being made, rather than forms. Therefore, it is the teacher's responsibility to find familiar terminology in order to introduce the new terms to learners with understanding. This involves the negotiation of meaning within shared experience which is at the centre of classroom activities in genre-based pedagogy. The developmental trajectory of genre-based literacy is presented in the following paragraph.

2.7.6 The developmental trajectory

In presenting “The Developmental Trajectory in Writing” Christie and Derewianka (2008:213) state that human beings have the capability to develop language but the social processes in which children are nurtured facilitate and indeed make possible the emergence of language. Christie and Derewianka (2008) emphasize the importance of teaching children and adolescents to write in academic settings. They justify their concern with an overview¹⁹ of the developmental trajectory in control of written language in English, history and science which shall not be discussed in depth.

¹⁹ Christie and Derewianka (2008:216-237) provide a summary of the major linguistic changes in control of written language in children's writing from early childhood to late adolescence in Australia. Although these linguistic changes may vary from language to language and age groups, the implication is that speakers of a particular language and context need to explore their contextual linguistic changes. Christie and Derewianka (2008) offer a guide to tracking writing development among learners.

2.8 CONCLUSION

This chapter has presented an overview of genre as understood, applied and critiqued by different scholars. First, the chapter offered findings from an investigation of writing samples across the curriculum and age development within the theory of Systematic Functional Linguistics (SFL) as a framework for writing instruction in the subjects English, History and Science. The study proved that learners' writing development improves as they mature in age and level of understanding. Secondly, the chapter has covered genre-based approaches which focus on 'Knowledge about Language' and 'Knowledge about Pedagogy' that has to provide all learners with effective learning through guidance. Thirdly, the chapter has addressed tools of genre classification, such as typology and topology and the notion of teaching micro-genres. Fourthly, this chapter examined how the three aspects of language (genre, text and grammar) can be used as resources in teaching and assessing writing across the curriculum. Lastly, the chapter discussed writing skills which are a comprehensive study of narrative and non-fiction text types showing purpose, essential elements, overall design, and technical knowledge, including grammar. These are very useful tools that educators can consider and include in their subject curriculum, daily lesson plans and then implement them in the classroom. The next chapter will explore linguistic resources that can be employed in a functional approach to writing development, invoking the three metafunctions of language as orientated in this chapter.

CHAPTER THREE

LINGUISTIC RESOURCES FOR READING AND WRITING GENRES EFFECTIVELY.

3.1 INTRODUCTION

The previous chapter discussed key considerations concerning teaching genre within the functional linguistic approach. Chapter three will discuss in more detail linguistic resources for reading and writing different genres effectively. These resources are grounded in language that is used in a specific context considering sentence level grammar and text level grammar, according to Christie and Derewianka (2008:7). As already mentioned, the first section will discuss issues concerning reading genres effectively. The last part will present a discussion of the linguistic resources applied in writing science as postulated by Christie and Derewianka (2008) and other authors. The chapter begins by revisiting the notion of context in relation to genres.

3.2 CONTEXT AND LANGUAGE

According to Christie and Derewianka (2008:6), a functional model of language in SFL²⁰ describes how language varies from context to context such that language is seen as a resource for making meaning. Language differs from field to field even if words are the same, for example, the word *tablet* refers to different meanings in technology and in the field of medicine. It was discussed in section 2.4.3.1 that in a particular situation within the culture there are contextual variables: the *field*, *tenor* and *mode* (the register) and that these cluster into three functions of language, namely the *ideational*, *interpersonal* and *textual* functions. These functions determine and shape language choices made in speaking and writing genres. Hence, Christie and Derewianka state for a reader to be careful and critical, it is advisable to consider the following genre analysis properties:

- What is the text about?
- What is the purpose of the text?
- What is the study of the text? (Taken from a text—or newspaper or magazine or any other source)
- What is the tone of the text? (Formal or informal)
- Who is the author of the text? (His name and academic background, social status)

²⁰ In SFL teaching emphasizes knowledge of letters and words but follows a top down approach of first considering the context where a genre is produced. Florence Davies (1995:59-61) explains the notion of bottom-up and top-down approach in reading.

- What is his or her purpose in writing the text?
- Who is the intended audience of the text?
- What rules or expectations limit how the text might be written?
- What shared cultural knowledge is assumed by the text?

The three contextual variables and functions of language are crucial in making language choices., The next section will discuss the linguistic resources for reading and writing genres as postulated by Christie and Derewianka (2008:7).

3.2.1 Resources for reading and writing genres

As stated in section 2.7.4 linguistic resources for reading and writing genres are categorized according to the three functions of language. Let us first consider the ideational resources at clause level.

3.2.1.1 Ideational resources

In discussing the ideational function of language, Christie and Derewianka (2008:8) distinguish the experiential and the logical metafunction of language. The experiential linguistic resources have to do with processes involved, participants in those processes, and the surrounding circumstances. Process types represent different aspects of experience, as seen in the next section.

3.2.1.1.1 Ideational-experiential resources at clause level

1. Processes

Processes are elements that involve people and things, with places, times and qualities, i.e. mental processes are things that happen to or are done by humans within themselves. Christie and Derewianka (2008:9) propose the following six types of processes:

- *Material Processes*

Material processes indicate doings and happenings in the material world (outer-experience). They indicate physical actions and will connect at least two participants. For example:

A thief stole Thandi's cell phone.

The process word is *stole* which connects the main participant *a thief*, the participant sufferer *Thandi* and the participant (goal) *cellphone*.

- *Behavioural Processes*

In this case, the process will connect an actor with its behaviour or style of behaviour. Generally, they will involve physiological and psychological behaviour, for example:

*People **exercise** at the gym.*

Exercise is the process word, while '*people*' is the participant and *at the gym* is a prepositional phrase.

- *Mental Processes*

These are processes of consciousness, i.e. inner experience that involves thinking, seeing and hearing. They are used to convey thoughts, perceptions or feelings. For example:

*Paula **likes** chocolate.*

Likes is a mental process, while *Paula* is a participant (sensor) and *chocolate* a participant/phenomena.

- *Verbal Processes*

Verbal processes are realized through sayings, hence that speech or communication is reported or projected. This requires a speaker, recipient, verbiage and the information. Verbal processes involve 'meaning'. For example:

*Buhle **asked** Lindani what he was writing.*

Buhle is a participant (speaker), *asked* is the verbal process, *Lindani* is the participant (recipient) and *what he was writing* is the verbiage.

- *Relational Processes*

These are processes of being, having or becoming, for creating relationships between elements of experience. For example:

*Gabriel **was** really disappointed.*

The proper noun *Gabriel* is a participant (carrier), *was* is the relational process and *really disappointed* is the participant (attribute).

- *Existential Processes*

Existential processes introduce the existence of something. There is typically only one participant associated with this process type to distinguish it from relational. For example:

*At Stellenbosch, there **was** snow.*

At Stellenbosch is a circumstance of place while *was*, is an existential process and *snow* is the participant (existent). Other elements of verbal groups are presented in table 3.1 below:

Table 3.1 Other elements of verbal groups

Tense System refers to the capacity of verbs to express time.	present: <i>take</i> past: <i>took</i> future: <i>will take</i> present perfect: <i>have taken</i> past perfect: <i>had taken</i> future perfect: <i>will have taken</i>
Finite is a verb that expresses time and has a definite tense and mood (indicative or imperative).	present indicative: <i>School closes at 4:30pm.</i> present imperative: <i>Close</i> the school at 4:30 pm. finite element: <i>It is raining.</i> non-finite: <i>Children were singing past the garden.</i>
Participles are additions made to verbs to help locate them in time.	<i>swimming</i> <i>chosen</i> <i>stopped</i>
Positive Negative	<i>I did read the book by Feez and Joyce (1998).</i> <i>I did not read the book by Feez and Joyce (1998).</i>
Voice: In active sentences, the thing doing the action is the subject of the sentence and the thing receiving the action is the object. <ul style="list-style-type: none"> • In passive sentences, the thing receiving the action is the subject of the sentence and the thing doing the action is optionally included near the end of the sentence. 	passive: <i>Learners are taught by the professor.</i> active: <i>The professor is teaching learners.</i>
Modality refers to grammatical resources used to express probability or obligation.	modal verbs: <i>can, should, will, might, may</i>

Christie and Derewianka (2008:9) state that processes can be in the form of one item, e.g.

*he **planted***

or in more than one item, i.e.

*he **had planted**;*

he had been planting;

he could have been planting.

Sometimes, processes can realize a causative function, i.e.

The changes wrought by the events of WWII.

Processes are material, behavioural, mental, verbal, relational and existential, Knapp and Watkins (2005:71) assert that in functional grammar learners need to learn both the formal characteristics of verbs and their meanings because not all verbs are action verbs. On the other hand, the traditional definition of verbs emphasizes on ‘doing verbs’. Christie and Derewianka (2008:10) point out that processes involve participants.

2. Participants

The term participants refers to those elements in a clause that are involved in processes. They may be non-human, like in a recipe for a cake, all the ingredients are participants. Christie and Derewianka (2008:10) posit that each process type involves a set of participants meaning that there may be more than one participant in a sentence, e.g.

Faith bought her sister Peggy a beautiful necklace.

In the above example, *Faith* is a participant (actor), *her sister Peggy* is a participant (beneficiary), and *a beautiful necklace* is a participant (goal). In a *material* process, the main participants are the *actor* and the *goal*.

In relational processes, participants express what is being described as *carrier* and the description as *attribute*, e.g.

The land is mountainous.

The land is a carrier, *is* a relational process while *mountainous* is an attribute.

Consider other participants displayed in the following in table 2.2, below:

Table 3.2: Types of participants

1.Agent:	The person (or higher order animal) that (volitionally) performs the action denoted by the verb/predicate.
2.Patient:	The entity (person or thing) that undergoes and is affected by the action denoted by the verb/predicate.
3.Theme: Theme:	3.1: The entity (person or thing) that is moved (relocated/displaced) as a result of the movement denoted by the verb/predicate. 3.2: The entity (person/thing) that is in a position/condition/state, or changes its position/condition/state.
4.Recipient:	The entity (person, higher order animal or thing) that receives something as a result of the action expressed by the verb/predicate.
5.Benefactive:	The entity (person or thing) that benefits (is advantaged) as a result of the action denoted by the verb/predicate.
6.Malefactive:	The entity (person or thing) that is disadvantaged as a result of the action expressed by the verb/predicate.
7.Goal:	The entity (person or thing), or place – towards which (abstract) movement takes place as a result of the action expressed by the verb/predicate.
8.Source:	The entity (person or thing) or place from which movement takes place as a result of the movement expressed by the verb/predicate.
9.Location:	The place at which the action denoted by the verb/predicate takes place.
10.Experiencer:	The person who experiences some emotions or psychological state expressed by the verb.
11.Instrument:	The entity used to perform/execute the action denoted by the verb/predicate.
12.Purpose:	The entity (person or thing) that is the purpose for the action denoted by the verb/predicate to be performed.
13.Cause/Reason:	The entity (person or thing) that is the cause/reason for the action denoted by the verb taking place.

Christie and Derewianka (2008) specify that participants are realized through nominal groups which can consist of one *Headword*. A Headword is the participant that is being modified such as *apples* below:

green apples

apples: Headword

Headwords can be expanded through pre-modification and post-modification. Modifiers in the nominal group can be

1. Demonstratives (occurs as pre-modifier or post-modifier)
2. Adjectives
3. Nominal relatives i.e. colours
4. Genitive (expressing meanings of: concrete possessive, attribute and descriptive)
5. Numerals: enumeratives and quantifiers

Sometimes, there is post-modification, using an embedded clause, i.e.

Green apples by which farmers boost the economy in South Africa.

Green: Pre-modifier

apples: Headword

which are mostly grown in South Africa: post-modifier (clause).

Moreover, the headword in the nominal group can be an adjective, i.e.

absolutely shocked to know that he spends money just for drugs

absolutely: pre-modifier

shocked: headword and

[[*to know that he uses money just for drugs*]]: post-modifier

The post-modifier can contain two embedded clauses, i.e.

Extremely glad [[*to see the Presbyterian Church*]]

[[*built a couple of years later.*]]

Pre-modifier Headword Post-modifier

In relational clauses, participants can be realized by other grammatical resources such as embedded clauses. Christie and Derewianka (2008:11) state that these clauses are ‘rank-shifted, they do not function at the level of a ranking clause but at the group level, i.e.

An eclipse is *[[when the earth or Moon blocks out the light of the Sun.]]*

Participant Process: relational Participant

It has been mentioned above that participants are realized in nominal groups. Nominal group refers to a class of words related to or adding information to a noun, just as adjectives that describe, evaluate or define the meaning of a noun. Table 3.1 presents Rose and Martin’s (2012:254) table of nominal group elements.

Table 3.3 Word classes that express nominal group element

Element	Class	examples
Focus	nominal group of	[the front half] of
Pointer	Article demonstrative comparative adjective possessive nominal group ‘s	a, the, some this, that, these, those usual, typical, identical my, our, their John’s
Number	cardinal (count) numeral ordinal (order) numeral measure adjective	4, iv, twenty-three second, 32 nd few several many
Describer	descriptive adjective attitudinal adjective verb intensifying adverb	dirty, refreshed, soft bright sad, scary, perfect, major rustling sound, tattered remains very scary, deliriously happy
Classifier	noun verb adjective numeral	sea creature, day dreams sliding door, garden tool pink apples, snowy owl 1996 World Cup, first child
Thing	Noun pronoun proper name	cat, table, tomato He, she, it Mr Smith, Swaziland, Facebook
Qualifier	prepositional phrase clause	snow [at the top of the rock] the girl [who won a prize]

Nominal group elements are in the class of participants. Moreover, there are circumstances surrounding processes.

3. Circumstances²¹

Circumstances offer information that answer questions such as ‘how’, ‘when’ and ‘where’. They surround processes and are realized in adverbs and/or prepositional phrases²². Knapp and Watkins (2005:60) define a phrase as a meaningful group of words that form part of a sentence or clause.

They propose five types of phrases or groups:

Noun phrase	<i>the difficult problem of supervision</i>
Verb phrase	<i>must not be seen</i>
Adjectival phrase	<i>seriously unmotivated</i>
Adverbial phrase	<i>quite happily</i>
Prepositional phrase	<i>before the event</i>

Circumstance of Time (when)

Circumstances of time are mostly phrases with few a words such as ‘after eating’, ‘in two weeks’ time’ or ‘during holidays’. Circumstances of time behave like dependent clauses of time. As they do not involve a process, they summarise more information than clauses. For example: ***Before sweeping the floor, mats and chairs should be dusted.***

Circumstance of Place (where)

Tells us where something happens, e.g.

*Last month she went **to Cape Town.***

Circumstance of Manner (how)

The circumstance of manner tells how something happens. For example:

*Last week, she went **by car.***

Christie and Derewianka (2008:11) provide a table of common circumstance types:

²¹ In traditional grammar, circumstances are known as adverbs and are fewer than those in SFL.

²² Rose and Martin (2012:244) display some meanings expressed by prepositional phrases.

Table 3.4 Common circumstance types and their realization in adverbs and/or prepositional phrases.

Circumstance	Example: adverb	Example: prepositional phrase
Time	<i>recently</i>	<i>in those days</i>
Place	<i>elsewhere</i>	<i>in the cave</i>
Manner	<i>Quickly</i>	<i>with surprising haste</i>
Cause		<i>in honour of their god</i>
Angle		<i>according to Darlington</i>
Role		<i>as Pharaoh</i>
Concession		<i>despite their many losses</i>

Rose and Martin (2012:244) add the following types of circumstances:

- *Circumstance of reason*, why, what for, e.g.
*...and we went to aunt Jhin's house **for Christmas**.*
- *Circumstance of matter*, what about, e.g.
*I was worried **about my cousin**.*
- *Circumstance of Comparison*, what like, e.g.
*...and it looked **like a baby octopus**.*
- *Circumstance of accompaniment*, what with, e.g.
*It was a cat playing **with a baby toy**.*
- *Circumstance of target*, what at, e.g.
*I laughed **at myself**.*
- *A circumstance of means*, e.g.
*In order to teach language across the curriculum, **the concept of genre must be put into practice**.*

Gordon and Byron (1821:1-7) postulated the following circumstances:

- *Circumstance of default*, e.g.
In default of, in the absence of
- *Circumstance of matter*, e.g.
He spoke of *men's 'sexist' behaviour*, but laid the responsibility for providing a remedy with women.

Common circumstances are those of time, manner, cause, angle, role, concession, reason, matter, comparison, and accompaniment, of target and of means. Christie and Derewianka (2008:12) point out that the three resources²³ for representing experience processes; participants and circumstances, form the system of *transitivity*²⁴. They also observed that a representation with more technical terms, utilizes few circumstances.

Rose and Martin (2012:246) agree that a clause consists of three main elements expressed by word groups: a process, people and things that participate in the process and circumstances associated with it. The process is the core element of the clause. They provide a nuclear perspective on the meaning of a clause as shown on table 3.4 below:

Table 3.5 Nuclear perspective on the meaning of a clause

Circumstance	Participant	Process	Participant	Circumstance
On the weekend	I	played	football	at my dad's

Processes, participants and circumstances are experiential linguistic resources at clause level. In the next section will be logical linguistic resources postulated by Christie and Derewianka (2008:15), at clause level. In addition, Christie and Derewianka (2008:12) discuss types of clauses and clause combinations.

3.2.1.1.2 Ideational- Logical Resources beyond the clause

According to Christie and Derewianka (2008:12), logical resources involve types of clauses, clause combinations and the meaning relationships created after those combinations. Feez and Joyce (1998:11) define a clause as groups of words which contain a verb. Christie and Derewianka proposed the following types of *clauses and their combinations*.

²³ A verb with the particle –ing marks continuous tense or a participle which Rose and Martin (2012:251) name ‘no tense.’

²⁴ Christie Frances (1995: 226-227) offers more examples on the system of transitivity.

1. Types of Clauses and Clause Combinations

Feez and Joyce (1998:11) define clauses as groups of words which contain a verb. They provide examples of clauses in the table below:

Some sentences have only one clause ²⁵ :	<i>Australia is the driest continent on earth.</i>
Some sentences have more than one clause:	<i>Australia could not pay the overseas money which had been borrowed in the boom years.</i>
Clause 1: Clause 2:	<i>Australia could not pay the overseas money which had been borrowed in the boom years?</i>

According to Christie and Derewianka (2008:13), when two clauses are combined, their relationship might be one of equal status. Thus they observed,

- **Clauses²⁶ of equal dependency**

Clauses of equal dependency occur when two combined clauses are of equal status, no dependency, e.g.

*The sealed cans are lightly cooked **and** heated.*

- **Clauses of unequal dependency**

This is when in the combination of two clauses; one clause is dominant and the other dependent, e.g.

*It does not stop growing **until** it reaches the ovary.*

The first clause is dominant while the second one is dependent on the first one.

Knapp and Watkins (2005:46) also identify the following types of clauses:

1. **An adjectival clause** that gives additional information about a noun or noun group. Such a clause is known as an adjectival or relative clause. They mostly begin with a relative pronoun such as who, which or that, e.g.

*All playgrounds need rules **that** people should obey.*

²⁵ Knapp and Watkins (2005:63) describe simple sentences to be those with one clause.

²⁶ Feez and Joyce (1998:12) use the terms main and dependent clauses, while Rose and Martin (2012:242) distinguish clauses as primary and secondary.

2. **An adverbial clause** refers to a subordinate or dependent clause that provides optional information about time, place, condition, concession, reason, purpose and result to what is happening in the main clause, e.g.

When children first arrive at school they need to know what to do. (time)

3. **A nominal clause** is a clause that acts as the subject or object of another clause. As they provide information that has a dependent relationship with the information in the clause, they are not considered to be embedded, e.

The council's decision to create a car park is not in the interests of children. (subject position)

4. **A verbless clause** is a clause where the subject and verb is ellipped/understood or nominalised, e.g.

Whether diesel or petrol, vehicles produce unacceptable levels of pollution.

In the above example, the subject or verb (*they are*) ellipped.

From almost all the examples given above, it can be noted that the combination of clauses employs conjunctions. Knapp and Watkins (2005:49) define conjunctions as a class of a word that coordinate words or clauses of equal status, or subordinates a clause to its superordinate clause, which can be main or another subordinate clause. Christie and Derewianka (2008:13) grouped clauses according to their degree of dependency, as seen in Table 3.5.

Table 3.5 lists some typical conjunctions relating clauses of equal dependency and conjunctions relating clauses of unequal dependency.

Table 3.6 Conjunctions realising equal and unequal dependency

Equal dependency	Unequal dependency
and but so not only ... but also either ... or and meanwhile otherwise and yet	while when until since whereas instead of if unless although despite

Dependent clauses can sometimes take the form of non-finite clauses:

The Japanese were kept in Vietnam **to maintain law and order**.

It shows the inhabitants of the island, **revealing more about their appearance, clothing, possible occupations and social class.**

or non-defining relative clauses:

Then we heard of this place called Illawarra, **which turned out to be perfect.**

2. Logical Relations between Clauses

Christie and Derewianka (2008:14) postulate that another way of looking at clause relations is to study logical meanings that were constructed. They suggest two groupings:

1. Where one clause expands on the meaning of another, creating relationships that are displayed in table 3.5.

Table 3.7 Meaning relationships between clauses

1.Addition	and, also, even, again, moreover, further, furthermore, similarly, in addition, as well as besides
2.Exemplification	for example, such as, for instance, in this case, on this occasion, in this situation, in this manner, to illustrate
3.Restatement	in other words, put differently, that is to say
4.Purpose (kuze/kute)	for this purpose, to that end, with this in mind
5.Result (ngenxa yaloko/ngesizatfu saloko)	so, therefore, thus, hence, accordingly, consequently, as a result, because, for that reason
6.Time	At once, immediately, meanwhile, at length, in the meantime, at the same time, in the end, when, then, as, before that, after that
7.Cause	Because, so, accordingly, thus, consequently, hence, therefore, as
8.Condition	then, in that case, under the circumstances, otherwise, if not
9.Concession	although
10.Contrast (kodvwa)	but, however, yet, still, even though, nevertheless, on the other hand, otherwise, after all, in contrast, whereas, instead of, alternatively, in spite of
11.Comparison (njenge)	similarly, likewise, whereas, but, on the other hand, except, when compared to, equally, in the same way, by the same token
12.Emphasis	especially, above all, in particular, what is more
13.Sequence	first, second, third, next, then, following, now, at this point, after, after this, subsequently, eventually, finally, previously
14.Summary	in brief, on the whole, in sum, to sum up, thus
15.Accompaniment	with

The following example illustrate clauses that expand on the meaning of another:

Initiating clause

Expanding clause

The moon doesn't disappear completely when there is a lunar eclipse.

Ultra sounds can pick up abnormalities in the foetus but further testing needs to be done to confirm Down Syndrome.

2. An example where one clause projects another, as with processes of saying and thinking:

Projecting clause

Projected clause

He states that the fleet is Theran.

We can understand that Therans had advanced building and architectural skills.

Moreover, Knapp and Watkins (2005:63-65) discuss different types of sentences. Christie and Derewianka (2008:14) explain that a complex sentence consists of one main clause and one or more subordinate clauses. A subordinate clause is one that provides some information to the main clause but dependent on the main clause to make sense. For example:

Projecting clause	Projected clauses
<i>He thinks</i> unequal	<p><i>The policy was reasonable</i>__ unequal Expanded clause</p> <p><i>In that the Government was curious after World War I</i> Expanded</p> <p>equal clauses (reason)</p> <p><i>and could only fight a war</i>__ unequal (addition)</p> <p>if their dominions supported it. (condition)</p>

This section has discussed types of clauses, clause combinations and logical relations between clauses. In the next subsection we will look at interpersonal language resources at clause level.

3.2.1.2 Interpersonal linguistic resources at clause level

With regard to the interpersonal linguistic resources, Christie and Derewianka (2008:15) state that interpersonal meanings involve resources for making statements, asking questions, giving commands and making offers. They posit that such resources are crucial in the oral mode.

3.2.1.2.1 Interpersonal resources at clause level

- *The Mood system*

Rose and Martin (2012:265) provide the basic mood options in English which can be summarized as follows:

speech function	example	mood type
Statement	the soldiers were marching	declarative
yes-no question	Were the soldiers marching?	polar interrogative
wh-question	Where were the soldiers marching?	wh interrogative
Exclamation	How the soldiers marched!	exclamative
Command	Quick march!	imperative

Rose and Martin (2012) point out that the main metalanguage in the classroom is that in the last column. They explain that patterns of meaning at the level of a text are known as discourse, patterns of meaning at clause level are known as grammar, and patterns of sounds or letters are known as phonology or graphology. The relation of these three levels is known as *realisation*.

The siSwati mood system includes the following moods which will be discussed in chapters 4 and 5 but not discussed in depth, here.

1. The Indicative mood
2. The Relative mood
3. The Subjunctive mood
4. The Consecutive mood
5. The Hortative mood
6. The Infinitive mood
7. The Temporal mood

Christie and Derewianka (2008) is mainly concerned with the interpersonal meanings beyond the clause, which involves patterns of evaluation.

3.2.1.2.2 Beyond the clause: Patterns of evaluation

In analysing the interpersonal development, Christie and Derewianka (2008:15) draw mainly on Martin and White's (2005) appraisal theory which has developed from SFL. Appraisal theory is concerned with the evaluations people make (*Attitude*), how these evaluations can be upgraded or

toned down (*Graduation*) and resources for building the ‘authorial self’, especially in dialogic interactions with others (*Engagement*). The appraisal system is represented in the following table:

Table 3.8: An overview of appraisal resources

Appraisal System

Attitude	Graduation	Engagement
Affect	Force <ol style="list-style-type: none"> 1. raise 2. lower 	Monogloss (bare assertion)
Judgement	Focus <ul style="list-style-type: none"> • sharpen • soften 	Heterogloss (open to other voices and possibilities)
Appreciation		

1. *Attitude* offers resources that express one’s emotional reaction. One of the resources is *Affect*, i.e. so disappointed. *Appreciation* evaluates the degree and quality of things and processes, i.e. fresh vegetables whereas *Judgement* judges the behaviour of others, i.e. so selfish and

Both stories are made **more interesting and more engaging** through the use of such

Gothic elements.

2. *Graduation*

The second resource of appraisal is *Graduation* where the strength of feelings, opinions and judgements can be raised or lowered either by using an intensifying adverb:

The murmuring of the crowd was **extremely** intense

or by selecting a graded lexical item:

The sacrifice at Gallipoli was **enormous**.

A meaning can be made more forceful by quantifying:

That would have **lots** of fun

... or by emphasizing extent:

Australians **all over the world** will be commemorating the 90th anniversary of the Gallipoli campaign

He was killed by a machine gun bullet through the heart, **less than four weeks after his arrival.**

3. **Engagement** has to do with resources for self-confidence, especially in dialoguing with others. Christie and Derewianka (2008:18) state that resources in engagement system enable the writer to construe an authorial presence by adopting a particular stance. This has to do with adjustments made by a speaker as the writers mention that one can assume a single voice commitment (monogloss), i.e. ‘Blue Hair Day’ is a fantastic book for young children. Or a multi-voice commitment (heteroglossic) (be open to other voices and possibilities). It has already been mentioned that Martin and Rose (2008) and Rose & Martin (2012) include appraisal in their five major headings of discourse analysis. Rose and Martin (2012:291) provide basic options in appraisal.

The discussion will next consider textual resources. The interpersonal resources beyond the clause are based on the appraisal theory: attitude, graduation and engagement.

3.2.1.3 Textual linguistic resources

The textual metafunction relates to mode; the internal organisation and communicative nature of a text. Christie and Derewianka (2008:19) state that transition from oral to written mode is the biggest challenge for most learners because in the latter there is no support from the audience.

3.2.1.3.1 Textual resources at the clause level

1. *Theme and Rheme*²⁷

It is normally difficult for speech oriented learners to construct simple phrases and sentences and more difficult to produce coherent texts. They need to learn how to arrange the discourse to make it accessible to the remote reader. Christie and Derewianka (2008:20) state that in English, the main focus is in the theme (the beginning of the clause) to point out departure which in this case shall be the development of the topic of discourse while rheme is (the rest of the sentence) or the new information being introduced. Grabe and Kaplan (1996:49-52) include this property in their study on given-new relations, topic-comment relations and theme-rheme relations. In terms of information structure, Grabe and Kaplan (1996) discuss topic sentence structure, topic continuity, topic structure analysis, topic comment analysis, given-new relations, theme-rheme relations, and focus-presupposition.

²⁷ For a clearer definition of theme and rheme see Knapp and Watkins (2005:67).

- **Topic sentence structure** is concerned with the examination of written text and discourse simplification. This is where relations between the topic of discourse, the topical subject of a sentence, the syntactic subject, and the initial sentence element are examined. Various possible patterns in written text are explored to isolate the topical subject of a sentence and then to examine the patterns of progression made by the topical subjects in a text. This analysis is applied to written discourse to show that particular patterns of topical progression may be more readable than others. Therefore, an approach to topical development should be applicable to the analysis of student writing.
- **Topic continuity:** According to Grabe and Kaplan (1996:53), the topic refers to noun phrases (NPs) which are mentioned continuously or restated in the unfolding discourse in terms of:
 - a. How far back in the text the last previous mention occurs;
 - b. The number of competing NP referents in the immediate discourse; and
 - c. The strength of its persistence in the oncoming discourse.
- **Topical structure analysis:** Grabe and Kaplan (1996:54) assert that topic structure analysis considers the study of differences in high- and low-quality writing and differences in version strategies. The procedure of the analysis starts by looking for topical and sequential chaining patterns in student essays and the progression of the topic in written texts. This helps learners to recognize the information structuring patterns in their writing. The determination of the main topics and subtopics and the progression of supporting information have great contribution to coherence in a written text.
- **Given and new information:** The given information refers to information already given which is not limited to the discourse topic. Whenever given information comes before new information the text gets to be more readable and memorable. With regards to Grabe and Kaplan (1996: 55) new information refers to inferred or brand-new entities which may be anchored or unanchored depending on whether they contribute to the on-going discourse.
- **Topic-comment analysis:** Grabe and Kaplan (1996:51) postulate that topic comment analysis is concerned with what a topic is about. In other words, what is said about the topic is referred to as the comment. First is the topic and then the comment which is the analytic part that provides more information about the noun phrase, the topic of the text.

- **Theme-rheme relations:** Theme refers to the point of departure of the writer, which is the first mentioned phrase. Grabe and Kaplan (1996:50) associate theme- rheme with the work of Halliday (1985, 1994) and systematic text analysis. The rheme is the move away from the speaker's starting point. This concept functions like the given-new relationship except that given-new relationship is based on the perspective of the hearer/reader and also based on the intonation unit of information. While the theme-rheme relationship is based on the perspectives of the speaker/writer and based on constituent sequence.
- **Focus-presupposition:** Grabe and Kaplan (1996:51) describe this term as information that is highlighted or focused, and to information that is backgrounded, as is often treated as presupposed, or assumed, knowledge. Thematic development is not so much a concern in speech and yet writing demands text development. The flow of information contributes to the coherence of the text. The theme based progression construes sentences that deliver information in a progressive manner. In the following text, the writer signals the point of departure: fats and oils, in table 3.7.

Table 3.9 Theme-Rheme

Theme	Rheme
<i>Fats and oils</i>	<i>are collectively known as lipids.</i>
<i>They</i>	<i>consist of the elements carbon, hydrogen, and oxygen.</i>
<i>Fats</i>	<i>are solid at room temperature and come from animal products.</i>
<i>Oils</i>	<i>are liquid at room temperature and come from plant products.</i>

The theme is a point of departure to the reader, it indicates what the writer is talking about and the rheme or rest of the clause provides new information. The pattern for the second clause is different, the *fats and oils* have been substituted by the pronoun *they*. In the third clause, the topic becomes more specific by shifting to *fats* in particular. In the fourth clause, the topic shifted to *oils*. However, excessive use of theme is not encouraged. It can make the writing sounds boring or monotonous in speech.

The shifting and maintenance of the topic can be done in different ways. This is called *thematic progression*. Christie and Derewianka (2008:21) articulate that some writers begin their sentences in a complicated way like starting with a dependent clause in theme position, i.e.

As they are less dangerous than the full disease organism (theme), *the animal does not suffer from the full disease.* (rheme)

or a prepositional phrase:

From the duodenum the food passes through the jejunum into the ileum,
where further digestion occurs.

Such kinds of sentence departures are called *marked themes*, which is when a sentence does not commence with the subject of the clause.

Theme in interrogative sentences

1. Yes/No questions: unmarked Theme

Are you interested in syntax?

Would you like a cup of tea?

2. Wh-questions: unmarked Theme

Then, in the name of goodness, why does she bother?

Where are we going?

Theme in imperative sentences

Wake me up before the meeting starts.

Oh please stop it.

Elements that go into the theme?

1. The first experiential element in the clause (participant/process/circumstance)

2. Any element preceding the first experiential element in the clause (modal/connective, adjuncts, conjunctions, finite, vocative,)

According to Rose and Martin (2012:273) the technical terms for previewing and reviewing are as follows:

	Starting point	End point
clause	Theme	New
paragraph	hyperTheme	hyperNew
text	macroTheme	macroNew

They point out that while hyperTheme refers to the topic of a text, a point stated relates to hyperNew, macroNew is the introduction and macroNew is the conclusion.

The main textual resource at sentence level is the theme. However, Knapp and Watkins (2005:43, 45, 47, 48, 53, 55, 61 and 62) noted that writing does not make complete sense without patterns of punctuation which will be in the next section.

Phonology and graphology

Phonology refers to patterns of sounds or letters in speaking and graphology in writing. For the purpose of this study, the focus shall be on the latter. As sentences are not just strings of words, Knapp and Watkins (2005) propose the knowledge of punctuation signs summarized in Table 3.8.

Table 3.10: Patterns of punctuation

Quotation Marks (“...”) Used to identify words that are direct or spoken or written, that belong to other people other than the writer.	<i>“I didn’t mean that,” she said.</i>
Semicolons (;) Used within sentences to separate different though related pieces of information (main or contrasting clauses). They are also used to separate complex items in a list.	<i>Road traffic is a problem; it is particularly so near to schools.</i>
Question Mark (?) used to indicate that a sentence should be read as a direct question.	<i>Is that all with genre?</i>
Full Stop (.) used to mark the end of sentences.	<i>Conjunctions are adverbials that connect clauses or sentences logically.</i>
Commas (,) used within sentences to separate information into readable units and to separate a series.	<i>To begin with here, we introduce the functional model of language from four perspectives.</i>
Colons (:) used to introduce something or to signal: - a list an example a subtitle	<i>The reasons for taking care of animals are: treatment, feeding and handling. (list)</i> <i>There are many vegetables: carrots, cabbages and lettuce. (example)</i> <i>Levels of language: discourse, grammar, phonology (subtitle)</i>
Brackets or parentheses (...) used to enclose material that provides additional information or comment within a sentence.	<i>Each word is then realised as a pattern of sounds or letters, which are part of phonology (in speaking).</i>
Capital letters: used at the beginning of sentences, for proper nouns (the names of people and places, months of the year, days of the week and for titles).	<i>Genre pedagogy is designed to work across all these sectors.</i> <i>Sydney, Mr, Mrs, Prof, Dr, January, Monday</i>
Apostrophes (‘) used in punctuation to indicate : possession or attributes	<i>They visited the university’s main library.</i> <i>Where is the linguistics’ department?</i>

Textual resources at the level of a clause include topic sentence structure, topic continuity, topic structure analysis, topic comment analysis, given-new relations, theme and rheme, focus presupposition and patterns of punctuation. The discussion next consider linguistic resources used beyond the clause (text structuring).

3.2.1.3.2 Textual Resources beyond the Clause: Cohesion and Coherence

This is the most challenging part that learners need to master. Christie and Derewianka (2008:19-20) state that oral interaction is supported by others, while in discourse; the writer constructs a text alone. They considered cohesion and coherence as tools for text organisation.

*Cohesion and Coherence*²⁸

Cohesion is concerned with information structure in a text and refers to the surface forms used to signal relationships present between sentences or clausal units in a text while coherence refers to the basic semantic solidarity which a reader or listener comprehends. Cohesion creates interdependency in text. Strauss and Feiz (2013:139) provide a more inclusive definition: Cohesion pertains to the manifold ways in which the primary topics, events, entities, and ideas develop and progress into the culturally-shaped logical coalescence of discourse. That is: What are the primary topics or entities or ideas being discussed or written about? How are they introduced? How are they developed and expanded? What are the lexical, grammatical conceptual and metaphorical agents that work together to achieve such coalescence of words, ideas, and thoughts? Christie and Derewianka (2008:22) state that writing demands more clarifications than speech, i.e. in writing items need to be referred to by name while in a conversation the speaker may use pointing words such as *these, it* .

In analysing cohesion Strauss and Fiez (2013) propose two types of cohesion which are grammatical and lexical cohesion. Grammatical cohesion involves reference, ellipsis and substitution, and conjunction whereas lexical cohesion is concerned with reiteration, inclusion, synonymy, antonymy, hyponymy, meronymy and collocation.

Grammatical cohesion

1. Reference involves the relationship between words and the things, ideas, entities, states, and people that such words designate. Christie and Derewianka (2008) and Strauss and Fiez (2013) propose two basic types of reference: *endophora* and *exophora*. **Endophora** is the act of reference

²⁸ Davies (1995:86,101-102) gives a clear definition of coherence and cohesion.

Hampton (2010:3-4) explains about creating links between sentences and between paragraphs.

to an item within the text itself. “Endo-” as a prefix means “inside, within.” **Exophora** is the act of reference to an item outside the text itself. “Exo-” as a prefix means “outside of.”

Endophoric reference is based on the actual words or ideas within the text or implied by it. Reference from within a text can either point backward to a referent already introduced, i.e. *anaphora*, “Has anyone seen **a boat**?” “**It** passed by not too long ago.” It can point forward to a referent that has yet to be introduced, i.e. *cataphora*, “**This** is what Abe and Lincon said-The dogmas of the quiet past are inadequate to the stormy present.”

Paltridge (2012) adds two more types of reference. **Homophoric reference** hold when the identity of the item can be retrieved by reference to cultural knowledge, in general, rather than the specific context of the text, i.e. the review of *First in the US, then all over the world, women became converts to the book’s tough-love message*. This is different from the final use of ‘the’ in this sentence. To answer ‘which book’ it is known that it is the one being discussed in the text. People in the United States know, however, from their United States cultural knowledge ‘which’ ‘United States and which world are being referred to in the text.

The second is **comparative reference** which occurs when the identity of the presumed item is retrieved not because it has already been mentioned or will be mentioned in the text, but because an item with which it is being compared has been mentioned, i.e. the use of similarities (likewise, equally, like and as it) or contrasts (whereas, but and on the other hand)

3. Ellipsis and substitution: Both processes are related to syntax and to lexico-grammatical meaning. **Ellipsis** involves the deletion of a word that is already recoverable from elsewhere in the discourse, i.e. Keep [this product] out of [the] reach of children. **Substitution** involves the use of an alternate word or alternate words whose meaning is recoverable from elsewhere in the discourse, i.e. I wanted to open a checking account, and I **did**. [I did= I opened a checking account.

Knapp and Watkins (2005:50) and Grabe and Kaplan (1996) expand on ellipsis and substitution as devices of cohesion. Consider table 3.9 below:

Table 3.11: Cohesive Devices²⁹ Examples

<p>Ellipsis: where parts of the sentence are left out, or substituted by zero items. Ellipsis is classified as deictic, numerative, epithet, classifier, and qualifier.</p> <ul style="list-style-type: none"> • nominal ellipsis • verbal ellipsis • clausal ellipsis 	<p>Hardly anyone survived after the accident.</p> <p>A: Do we take the gravel or tarred road? B: The tarred? is shorter. A: What are you writing? B: ? A thesis.</p>
<p>Substitution: words are substituted for other structures</p> <ul style="list-style-type: none"> • nominal substitution • verbal substitution • clausal substitution 	<p>My computer is too big. I need a portable one.</p> <p>A: You think Jade has already eaten. B: I think everybody did. A: Has everyone arrived? B: I bet so.</p>

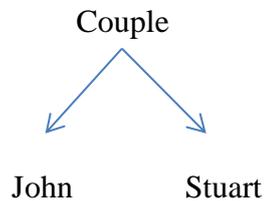
3. Conjunction: This process relates to the grammatical and pragmatic linking of entities, events, ideas, and opinions, through such conventions as those listed in table 1.5 on meaning relationships between clauses, i.e. time and condition. The discussion will switch over to lexical cohesion.

Lexical cohesion refers to the multiple ways of “saying the same thing” or almost the same thing, either explicitly or through associative means. Thus, the most simple and direct instance of lexical cohesion is repetition/reiteration

1. **Reiteration** refers to repeated words in a text. This includes words which are inflected for tense or number and words which are derived from particular items such as ‘Stuart’ and ‘Stu.’
2. **Synonymy** refers to words which are similar in meaning such as “date” and ‘go out.’
3. **Antonymy** describes opposite or contrastive meaning such as ‘shy’ and ‘brave’ and ‘man’ and ‘woman.’
4. **Hyponymy** refers to classes of lexical items where the relationship between is one of ‘general-specific’ or ‘class-member’ type of relationships. This relationship could be represented diagrammatically.

²⁹ Feez and Joyce (1998:19) describe cohesive devices as tracking words.

5. **Meronymy holds when** lexical items are in ‘whole part’ relationship with each other, such as the relationship between couples. The superordinate item is ‘couple’. These relationships could be represented diagrammatically as follows:



6. **Collocation:** describes associates between vocabulary items which have a tendency to co-occur such as combinations of adjectives and nouns, as in ‘real-estate agent’, the ‘right direction’ and ‘Aussie men.’ Collocation includes the relationships between verbs and nouns such as ‘love’ and ‘book’, ‘waste’ and ‘time’ and ‘love’ and ‘hate’.

However, Rose and Martin (2012:283) use the term identification instead of reference. They provide a table of basic resources for identification.

Table 3.12: Basic resources for identification

Presenting

Indefinite	a, an, one
	someone, anyone, some, any
Comparative	every, all, another, some other
definite	the
Demonstrative	this, that, these, those
Possessive	his, hers, theirs, Molly’s
Comparative	some, similar, other, another, different, else... such goodness, so good, as good as..., first, second, third, next, last; preceding, subsequent, former, latter..., more, fewer, less...; Better, best; richer, richest... each, both, neither, either
Pronoun	I, me, you, we, he, it, we, us, they, them,
text reference	this, that, it, this book, a letter, the story’s

Rose and Martin (2012:277) also state that conjunction involves logical relations linking clauses, sentences and phrases in a text. In this way, conjunctions contribute to cohesion in a text, hence, Rose and Martin’s (2012:282-283) list is included in tables 3.8, 3.9 and 3.11 below.

Table 3.13: External Conjugation (connecting events)

Action	add subtract alternative	and, besides, both... and nor, neither... nor or, either... or, if not... then
Comparison	similar different	like, as if whereas, while, instead of, in place of, rather than, expect that, other than, apart from
Time	successive simultaneous	after, since, now that, before, once, as soon as, until as, while, when
Cause	expectant concessive	because, so, therefore although, even though, but, however
Means	expectant concessive	by, thus even by, but
Condition	expectant concessive	if, then, provided that, as long as even if, even then, unless
Purpose	expectant concessive	so that, in order to, in case even so, without, lest, for fear of

Table 3.14: Internal conjunctions (organising text)

Addition	written	further, furthermore, moreover, in addition, as well, besides, additionally, alternatively
	spoken	now, well, alright, okay, anyway, anyhow, by the way
Comparison	similar	similarly, again, that is, i.e., for example, for instance, e.g., in general, in particular, in short
	different	in fact, indeed, at least; rather, by contract; on the other hand, conversely
Time	successive simultaneous	first, second, third, next, previously, finally, lastly at the same time, still
Consequence	concluding	thus, hence, accordingly, in conclusion, consequently, after all, therefore
	countering	anyway, anyhow, in any case, at any rate, nevertheless, nonetheless, still, admittedly, of course, needless to say

Table 3.15 Continuatives

Addition		too, also, as well, so (did he)
Comparison	less than expected	only, just
	more than expected	even
Time	sooner than expected	finally, at last
	longer than expected	still
	Persistent	again
	Repetitive	already

The commonly used cohesive devices³⁰ are reference, substitution, ellipses, conjunction, repetition, inclusion, synonymy, antonymy, hyponymy, meronymy and collocation which form part of grammatical and lexical relations discussed by Rose and Martin in section 3.3.6.5. Some of these cohesive devices are discussed by Ulkaniez (2006:208-223), Hessamy and Hamed (2013:128-141), and Akindele (2011:99-112). Christie and Derewianka (2008:24) further suggest a resource for creating abstractness in a text and that is grammatical metaphor to be discussed next.

3.2.2 Grammatical metaphor³¹ (Nominalisation)

Christie and Derewianka (2008) argue that the use of grammatical metaphor is a skill whereby learners are able to compact information into a single clause in order to create abstractness. Schleppegrell (2009:13) maintains that grammatical metaphor enables a writer to create abstractions that can participate in building arguments and structuring texts, and to build complexity in academic texts. In this case, processes are realized as verbal groups, participants as nominal groups, and circumstances as adverbs or prepositional phrases. Grammatical metaphor shall base on deverbatives, the formation of nouns from verbs or clauses. This is what Knapp and Watkins (2005:56) call **nominalization**. For example:

*As the student **violated** the school rules, the principal **expelled** him.*

*The **violation** of rules led to his **expulsion**.*

³⁰ Grabe and Kaplan (1996:56-59) discuss cohesion in texts.

³¹ Grammatical metaphor is a tool for building knowledge and discussed by Rose and Martin (2012:116-27) and Martin and Rose (2008:38-43). Rose and Martin (2012:259) explain that grammatical metaphor involves two layers of meaning though the tension is between the meaning of grammatical structures and their discourse functions. They posit that GM changes figures into abstract nominal groups that can be chunked into Themes and News and that if processes are nominalized as things, the participants are mostly elided. They also agree that GM has become the key resource in academic discourses, especially in humanities, science and social sciences. They express the need for teachers to understand grammatical metaphor.

Nominalisation is a technique that abstracts ideas and concepts. Nominalising clauses and verbs allows the removal of agency and time from processes, as *the student* in the above example has been removed and the *violated* has become *violation*, a timeless, agentless phenomenon.

According to Knapp and Watkins (2005:56-57), deverbatives can be formed by using the present participle form of the verb, such as weeding, cultivating or harvesting or by adding suffixes such as:

Produce – production, globalise- globalisation

Invest – investment, enrol- enrolment

Accuse – accusation, propose- proposal

Grammatical metaphor is a resource for the realization of abstractness in a text. Wingell, Martin and Eggins (1989:369) in their research on the discourse of geography explain more about the construction of technical terms, i.e. drops from the rain = raindrops. The following section will dwell on lexical density, a resource explored by Christie and Derewianka (2008:27).

3.2.3 Lexical Density

Christie and Derewianka (2008:27) point out that in English lexical items and grammatical items are different entities such that lexical items include content words, i.e. nouns, adjectives, verbs and some adverbs. For example:

The crucial issue for this textual component seems to be how the relationships between logical assertions and information structure work within the framework of the topic of discourse.

The grammatical items include articles, prepositions, pronouns, auxiliary verbs, conjunctions and demonstratives. Christie and Derewianka (2008:27) observed that less lexical items are used because we can see it in the surroundings, yet in writing information has to be built up. Generally, writing is more lexically dense. Lexical density is measured by counting the number of lexical items per clause. So, in the example above, there are typically thirteen lexical items in the sentence. To see the difference of lexical density in spoken information, we subtract the grammatical items which in this case are fifteen, meaning that writing this sentence demands an increased lexical density of twenty-eight items. Christie and Derewianka (2008) point out that it is not advised to grade texts in terms of their lexical density.

Rose and Martin (2012) proposed another resource for writing, called lexical metaphor discussed below.

3.2.3.3 Lexical metaphor

Rose and Martin (2012:254) postulate that **lexical metaphor** is a technique for adding inferred meaning that differs from the literal meaning of the lexical words. Inferential meaning is read with the context while the latter is interpreted through experience. These are like idioms. Knapp and Watkins (2005:53-54) had already offered several ways of construing lexical metaphor (figurative speech):

- **Alliteration:** is a figurative technique of representing the same sound, mostly the first consonant of a word, i.e. *Betty Bother bought some butter from Shoprite.*
- **Cliché:** The uses of a word or phrase, or a speech like a simile or metaphor, i.e. *he fought like a demon.*
- **Hyperbole:** a rhetorical term used to describe an exaggeration and not meant to be taken literally, i.e. *a million thanks.*
- **Metaphor:** a figure of speech where one thing is named as another, i.e. *The stadium was a cauldron of activity.*
- **Metonymy:** a figure of speech similar to metaphor but gives a name associated to something, i.e. *the crown for the monarchy-He was a citizen of the crown*
- **Rhetorical question:** A question that does not need to be answered but signals to the reader that there is no argument beyond the answer, i.e. *didn't I tell you?*
- **Simile:** a figure of speech that compares one thing to another using a phrase commencing with like or as. The two things in comparison must be different, i.e. *Her teeth are as white as snow.*
- **Synecdoche:** is a figure of speech where the whole is used to represent the part, i.e. *Brazil has won-* the whole country represents the team.

Lexical metaphor includes alliteration, cliché, hyperbole, metaphor, metonymy, rhetoric question, simile and synecdoche. Textual resources beyond the clause involve cohesion, grammatical metaphor, lexical density and lexical metaphor. In the next section, linguistic resources for writing in the content subject science will be discussed.

3.2.4 Major linguistic resources for writing science

Christie and Derewianka (2008:6) posit that success in writing relies on the field of knowledge involved, so that linguistic resources are deployed differently in each subject. They observed that scientific genres are built upon scientific evidence together with experimental procedures. Some phenomena cannot be observed in the laboratory and therefore demand reading other research and

documentation. So, science learners need resources for reading and writing scientific information. Christie and Derewianka explored descriptive and classifying reports for early childhood late adolescence; sequential, factorial and causal explanations for early childhood to mid-adolescence and discussions for mid- adolescence. Below will be linguistic resources for a descriptive report at early childhood. The schematic structures were presented in chapter two, section 2.5.2.

3.2.4.1 Descriptive Report for Early Childhood Writers

According to Christie and Derewianka (2008:187-188), in a descriptive report written by early childhood writers, the general statement classifies the phenomenon of interest. Processes are in the present tense, with the use of modal verbs: *can have*. Relational processes are illustrated through descriptions, such as:

It is a sphere; Venus is very old and rocky.

Therefore, *Venus* is a carrier while *old* and *rocky* are attributes and the relational process is, *is*. Relational processes are also displayed in the classification of the entity involved:

Bats are mammals; they are the only mammals [[that can fly]]. This involves an embedded clause. Material processes are built in actions:

Venus orbits the Sun in 235 Earth days.

It is in compressing a great deal of information into the nominal groups that existential processes are demonstrated:

There are more than 1000 kinds of bats like vampire bats, long-eared bats, three-tail bats and fruit bats.

A series of unmarked themes is illustrated which indicates the entity that is thematised: *Bats...*, *Venus...* Christie and Derewianka (2008:188) point out that the organizational sequence of information depends on the experiential information constructed and the manner in which this is ordered, as here the text moves from appearance to feeding habits, to capacities and to breeding.

Reference in this text is not handled properly as at the stage of capacities, the writer moves from *a bat* to the pronoun *they*. Under normal circumstances, *it* would be the tracking word. The text depends on simple clauses with one sentence demonstrating the use of two dependent clauses:

Bats see by their pupils; because they open them up wide (clause of reason) to see (clause of purpose).

The text is accompanied by an image of the venus. A descriptive report for early childhood demonstrate relational processes, material processes, existential processes in the present tense, modals, nominal groups, unmarked themes, labelled descriptive information, reference, clause of reason, clause of purpose and dependent clauses. Next is a classification report for late childhood.

3.2.4.2 A classifying report for late childhood

In studying a classifying report for late childhood writing development, Christie and Derewianka (2008:188-189) observed that the text on ‘The Antarctic Food Chain’ is longer, with the use of lexis and improved grammatical organization. Only two theme choices are marked:

...in the deep blue; with powerful teeth...

There are no images accompanying this text. Process types are either relational and have to do with describing creatures such as:

Krill is a fish-like creature with ten legs,

or material, involving the actions of the creatures:

*They **are eaten** by larger primary consumers, such as Krill, shrimp and small fishes.*

The sentence illustrates the use of two items of verbs *are eaten* and comparison *such as Krill*... Technical language is used such as:

plankton, phyto-plankton, diatoms and carnivorous.

Christie and Derewianka (2008:189) state that as late childhood writers are preparing to enter secondary schooling, their writing begins to deploy dense nominal groups:

*Krill is a **fish-like creature with ten legs**.*

Some of the nominal groups build their information using apposition to elaborate on the meaning involved:

*The top predators in Antarctica have **only one member-the killer whale, a carnivorous 27-foot long killing machine**.*

Clauses displayed are simple to follow because the purpose of the text is to describe. Where there are clause interconnections, they basically involve simple additive relationships, linking clauses of equal status as in:

Almost all life in Antarctica is in the sea // and in the deep blue there is a food web.

There is also a contrastive relationship linking equal clauses:

All of the secondary consumers are pretty high in the food chain// but (they are) not high enough [[to not have a predator]].

Linguistic resources for a classification report in late childhood involve relational or material processes using present tense, technical language, dense nominal groups, apposition, additive and contrastive relationships, marked and unmarked theme choices. A report for mid adolescence was observed.

3.2.4.3 A Report for mid adolescence

In an analysis by Christie and Derewianka (2008:190-195), they noted that a report written by mid adolescence on Down Syndrome demonstrated the incorporation of classification, description, and some causal explanation. The general statement defines the condition, while the description element describes, involving causes and provides a factorial explanation of factors responsible for Down Syndrome. All theme choices are unmarked until the phase devoted to causes. The text is lexically dense due to the use of technical language and the description of symptoms of the disease expressed in nominal groups.

The text demonstrate a high level of abstraction about the phenomena which some involve grammatical metaphor. A relational attributive process is used to define the phenomena, where the nominal group is expanded with embedding:

Down Syndrome is a chromosomal disorder [[that affects the genetic make-up of human beings]].

The cause of condition is introduced, using a grammatical metaphor:

Its cause is directly related to a mutation or abnormality of chromosome 21.

In this case, grammatical metaphor compresses a great deal of information, establishing the focus for the discussion. Symptoms and diagnosis of the disease are devoted to the description element using only nominal groups to name them all, for example:

a smaller than average skull; some level of learning disabilities.

The stage for diagnosis achieves some density as it uses embedded clauses in several nominal group structures with abstract expressions:

There is a blood test [[that can be performed]], this tests the mother's blood for abnormal levels of 3 chemicals, which indicates the risk of the baby [[developing Down Syndrome]]. The only definite way [[diagnose Down Syndrome for sure]] is [[to perform an amniocentesis]].

In exact causes of the disease, there is need for the resources of explanation which establishes a statement about cause:

Down Syndrome is caused by an abnormality in the human chromosome 21. The reasons [[why these abnormalities occur]] are unknown.

This introduces the factors responsible:

There are three different ways [[in which this chromosome can be abnormal//and cause Down Syndrome.]]

The factors are then explained, the first one introduces a technical term to name the phenomenon:

*The baby is born with an extra copy (a third copy) of chromosome 21 in every cell. This is referred to as **Trisomy 2** and it is the cause of about 95% of all cases of Down Syndrome.*

The second explanation involves another technical term:

*In the second type, a piece of chromosome 21 attaches itself to some of the other chromosomes. This is called **translocation**.*

Christie and Derewianka (2008:194) observed a conditional clause in marked Theme position which expands the explanation of this phenomenon:

***If the baby also has two normal 21st chromosomes** it will show the traits of Down Syndrome.*

The third explanation demonstrates two marked themes which the first is expressed in a circumstance of condition, the other in another conditional clause to shape the explanatory detail:

*The third type is much the same as the same as the second; a piece of chromosome 21 attaches itself to some of the other chromosomes. **In this case** however, only 1 normal chromosome 21 is present. **If this occurs** the baby will not show the traits of Down Syndrome but their children could.*

The explanations are followed by causes, interwoven with conditional information related with the occurrences of the phenomenon. The phase devoted to incidence describes the disease, while the last phase is lengthy and grammatically more intricate as it deals with treatment and control of the disease. A marked theme is built using grammatical metaphor:

Due to the learning and behavioural disorders [[caused by Down Syndrome]] people [[who have it]] usually need special care.

Christie and Derewianka (2008:195) posit that the above expression can reveal a causal connection if presented more congruently:

'People with Down Syndrome do not learn well and they also often behave in such a way [[that they have to be taken care of]].'

A marked theme was observed in the following clause complex, which also has a dependent clause of result:

As for the control side of things, there is no definite way [[to predict Down Syndrome]] //therefore it is hard to stop it occurring. (clause of result)

Another marked theme begins another clause:

With the advances in prenatal tests it can be detected very early in the pregnancy.

There is another clause of result used with the conjunction *then* which means therefore:

This then gives the parents a choice of [[whether or not they want to continue with the pregnancy.]] (clause of result)

A descriptive report for mid adolescence employs headings, grammatical metaphor, relational attributive processes, embedded clauses, descriptions, nominal groups, high density, explanations, factors, technical terms, conditional clauses, marked themes, circumstance of condition, causal connections, complex clauses, clauses of result, or conjunction of condition.

In mid adolescence, reports illustrate the use of unmarked theme choices, some marked themes, factorial explanation, technical language, nominal groups, grammatical metaphor, relational attributive process, embedded clauses, clause of result, relational identifying process, abstract expressions, high lexical density, factors, conditional clauses, circumstance of condition, and/or

causal connection. Christie and Derewianka (2008) also studied a description report for late adolescence.

3.2.4.4 Descriptive report by late adolescence

Christie and Derewianka (2008:196) postulate that a descriptive report of late adolescence demonstrates dense nominal groups which build abstractions illustrated in the phenomena under discussion and in expressions such as:

magnetic particle testing, acoustic monitoring, x-ray testing and ultrasonic testing.

Unmarked themes are dominant in the text, only one marked theme is signalled which is introduced by a circumstance of manner:

By testing these properties, a material can be assessed and improved upon.

Relational processes are related with conjunctions of time and occasional modals which lead to embedded clauses:

Destructive testing is often used when a non-destructive test would not obtain the results [[required (i.e. a metals yield point, failure point, hardness, ductility, and its modulus of elasticity)]]].

The overall view of linguistic resources for a descriptive report in late adolescence displays unmarked themes, dense nominal groups, abstractions and high density.

Christie and Derewianka (2008) stated that high density is one crucial measure of an older student writing science. They turned to explanation genres to explore more aspects of writing development in science.

3.3 EXPLANATIONS

Christie and Derewianka (2008:196) point out that explanation are not common in the years of early childhood but appear by late childhood to early adolescence, where they appear in longer texts that incorporate other genres. They state that sequential explanations are learnt early at school. Sequential explanations for early childhood are discussed in the next section.

3.3.1 Causal explanation for early childhood

In studying the causal explanation, it was observed that the phenomenon identification stage establishes the phenomenon to be explained, while the explanation sequence makes extensive use of

temporal sequence, created using temporal conjunctive relations or marked themes of time that are realized in circumstances of time, or dependent clauses of time:

At the cannery the fruit is washed and checked and cleaned.

After it is washed it is cut into bits.

Sequence explanations rely on different temporal resources created by using temporal conjunctive relations or unmarked themes of time, circumstances of time or dependent clauses of time and congruent grammar. In the next section will be a causal explanation by late childhood.

3.3.1.1 Sequential explanation for late childhood

According to Christie and Derewianka's (2008:197-199) assessment, sequential explanations of late childhood use unmarked theme choices which aim at thematising the phenomenon or some aspect of it. They articulate that the text is simple and made a comment on its grammatical intricacy, evident in various clause interdependencies used to build the text. In addition the phenomenon to be explained requires information that cannot be seen as it is abstract and difficult to explain.

Clause complexes are displayed in the phenomenon identification. The unknown phenomenon is established by an opening clause with an existential process that classifies:

*There **are** two different eclipses...*

The next equal clause employs a mental process of projection, telling what was done in the past:

...and scientists discovered a long time ago...

The third projected clause establishes what was found:

...how eclipses occur.

A relational process is illustrated in a definition:

An eclipse is [[when the earth or Moon blocks out the light of the Sun.]]

In an explanation, intricate clauses are involved together with dependent clauses, some of whose conjunctions are elliptical, which expand the information:

A solar eclipse occurs

when the moon moves in front of the Earth (clause of time)

and (when it) blocks the Sun, (clause of time)

but the Sun is not completely blocked

because the outer atmosphere of the sun flashes (clause of reason)

and (because it) can still be seen (clause of reason),

The last clause demonstrates an additive conjunction, involving a referential item *that* to refer back to what has been explained and to introduce the technical term that defines:

and that is called the Corona.

Dependent clauses of time and of result are displayed in the second phase of the explanation to build the sequence involved and to introduce another technical term:

A lunar eclipse occurs

when the earth is between the Sun and the Moon. (clause of time)

The earth blocks the light to the Moon

and (therefore) the Earth's shadow falls on the Moon (clause of result)

and this is called the Umbra.

The Moon doesn't disappear completely

when there is a lunar eclipse (clause of time)

but grows darker.

According to Christie and Derewianka (2008:199) the writer who is in his/her late childhood demonstrates the ability to use dependent clause types, in a way which expands and enhances the experiential information involved in building an account of a lunar eclipse, meaning that the writer demonstrated good control of essential language resources. Unmarked theme choices, clause interdependencies, temporal sequence of events, existential process, mental process, relational process, projected clause, dependent clauses, elliptical conjunctions, additive conjunctions, technical terms, and dependent clauses of time and of result are resources used in a causal

explanation written by late childhood writers. A mid adolescence causal explanation was put under scrutiny as seen in the following discussion.

3.3.1.2 Causal Explanation for Mid Adolescence

Christie and Derewianka (2008:200-202) propose that the phenomenon identification element demonstrates a grammatical metaphor in the establishment of the issue to be explained, introducing technical language:

*The reproductive female part of a flower consists of a stigma. The male parts are the **stamens** and the **anthers**. These are the parts [[that make fertilization possible]].*

They explain that if the above example was expressed more congruently the element would read:

'A flower has a female part // and it has two male parts. The female part of the flower is the stigma // and the male parts are the stamens and the anthers. A flower reproduces // if the male parts fertilize the stigma.'

Two equal clauses are linked with simple additive conjunctions. There is also a dependent clause of condition:

These are the parts [[that make fertilization possible]].

The working together of the two parts makes fertilization possible.

Christie and Derewianka (2008:201) emphasize that causal explanations deal with abstract experience with the requirement of a careful account of causes. The explanation uses more technical language and begins with a definition of the first step:

The first step in fertilization is pollination.

Other clauses then develop the account of fertilization using temporal connectedness:

When the pollen sacs [[that are contained in the anthers]] are ripe (clause of time)

the anther breaks open and (then) sets the pollen free. (clause of time)

Then, birds, insects or wind carry the pollen to another flower of the same species. (clause of time)

The text also introduces a technical term through the referential item *this* to refer back to the previous sequence of events:

This is called cross pollination.

A marked theme is illustrated in a dependent clause of condition which establishes a process that takes place:

When the pollen is carried to the stigma of the same flower... Then, the process is named:

...it is called self-pollination.

The text provides more information:

Cross pollinated plants are usually healthier than self-pollinated ones.

This clause demonstrates comparison *healthier than* and the use of a relational process with an occasional modal *usually*.

A circumstance of reason is displayed in the final clause with the reference *this* pointing back to what has been written, clarifying that the cause is a primary issue:

Many plants do not self-pollinate because of this.

Temporal connections between events are established as their sequence is crucial to tell how the process occurs:

Once the pollen reaches the stigma of the same species of flower // it begins to grow. It does not stop growing // ***until*** it reaches the ovary. ***When*** it arrives // it pierces the ovary wall // and ***then*** it goes through the ovule.

In the next clause, a referential item is used to refer back to what has been written, while the other participant in the clause is realized in an embedded clause:

This is [[how plants fertilize]].

In the final phase, a theme is realized in a temporal clause, involving a causal intent, which is one of reason:

When the plant fertilization is finished // nearly all the lower parts (of the flower) die // and fall off // because their work is done.

A causal explanation of mid adolescence is characterized by the use of grammatical metaphor, equal clauses, additive conjunctions, dependent clause of condition, technical language, temporal connectedness, clause of time, referential item, marked theme choices and circumstance of reason. This was succeeded by a factorial explanation.

3.3.1.3 Factorial Explanation for mid adolescence

In regards to a factorial explanation of mid adolescence, in Christie and Derewianka (2008:202-204), a factorial explanation outlines several interconnected factors or impacts associated with a phenomenon. They posit that the phenomenon identification element establishes a macroTheme for the explanation, discussed in section 3.3.3.1 of this chapter. Textual themes are displayed (*firstly, secondly, thirdly, fourthly*).

The phenomenon identification element expands with a marked macroTheme:

Near the Canoe Club, there were several paddocks to harbour introduced species...

They observed that each factorial element begins with a hyperTheme followed by an expansion of this. Modal verbs are illustrated as each hyperTheme is elaborated, suggesting possible consequences. Marked themes are also demonstrated:

The removal of native flora would destroy the homes and food source of some of the smaller organisms in the area.

With fewer plants and trees in the area around the creek (marked hyperTheme), the soil would suffer dreadfully, and this lack of plants may be one of the sources of the lack of stability in the creek bank and the large amount of erosion.

Secondly, the introduced animals themselves could (modal verb) do great harm to the natural environment...

The creatures would not (modal verb) only graze and interfere with the native plants,

Thirdly, fertilizers... could (modal) cause problems...

As the fertilizer is placed directly onto the soil (marked hyperTheme), it is quite easy for it to infiltrate the ground or become run off...

Pesticides... will have negative effects...

Attitudinal values are also expressed, related to the negative effects on agriculture. A factorial explanation is expected to demonstrate macroThemes, a hyperTheme, factors, textual themes and marked themes. Now that we have dealt with reports and explanations, the discussion will switch over to arguments in science.

3.4 ARGUMENT IN SCIENCE

Christie and Derewianka (2008:205) propose the encouragement of children in the examination and discussion of ethically sensitive issues that emerge in science, such as genetic modification of crops or the cloning of animals. The second avenue is teaching to involve children in the consideration of environmental issues and topics, such as global warming or environmental depredation. They analysed language resources for a discussion for mid-adolescence.

3.4.1 A discussion genre of mid-adolescence writing

Discussion genres have been introduced in chapter 2 when dealing with schematic structures. Christie and Derewianka (2008:206) posit that in science, a discussion genre involves identifying an issue, and then developing arguments for and against, reviewing evidence, before offering a conclusion or a recommendation. They point out that evidence is to be offered with respect to each argument, and the writer is expected to express an opinion bearing in mind that he or she has evidence on which to base it.

The opening element identifies the issue while indicating that opinion differs over it:

‘Electromagnetic radiation from mobile phones is a health risk’. The scientific world is divided by this statement. Some believe that mobile phones can cause great illness, while others believe that the phones are completely harmless.

The writer detaches himself from the issue by making reference to the *scientific world* and that *some people believe... while others believe...* otherwise. Two mental processes are displayed in this example with non-specific participants. The discussion is based on research information as it is difficult to get reliable evidence about human brains.

One clause offers a statement that pursues the matters referred to in the issue:

Considerable amounts of research are done each year into the issue...

The meaning of this statement developed into a clause complex involving a causal clause:

However, it is difficult to get accurate results from human brains

as a subject must be dead to study the brain in detail. (clause of reason)

The arguments differ according to the scientist used by the writer. He still detaches himself from issues through an attribution to the authority of others, displaying capacity for engagement with other's point of view:

According to most, mobile phones' electromagnetic radiation can have negative effects on humans...

Sometimes the writer alludes to the discoveries of others, not identified:

It has been discovered [[that 30% of brain tumours of mobile phone users develop on the side of the head on which they hold their mobile]].

The next paragraph continues:

Since humans are so hard to test on, numerous animals have been tested on.

The argument developed into a series of rhetorical questions, which Christie and Derewianka (2008:208) noted are not a feature of other science genres that have been discussed:

Are the results usable? Can we take the results found in these experiments and apply them to humans? Or do the brain structures of these creatures cause them to react differently and there is nothing to fear?

In outlining arguments against the proposition, the writer begins to personalize the discussion and yet giving some authority to his claims with reference to:

Many people, like myself, [[who believe // that the radiation emitted by mobile phones is perfectly harmless]]

An elaboration of this expresses some appreciation of the dangers of radiation, though qualified:

The electromagnetic radiation may be dangerous in large amounts...

In the introduction of a causal clause and a conditional clause to suggest some judgement about the value of the research, the grammar becomes more intricate:

In my opinion, « as no solid evidence has been found to prove that mobile phones actually are a health risk », (clause of reason)

there is no reason to stress and worry about it.

Even if mobile phones do emit harmful radiation, (clause of condition)

there are so many more appliances that would emit radiation, like computers and televisions.

One more rhetorical question concludes the element:

Why worry about phones?

The conclusion, reviews the point made at the beginning, re-establishing the issue, but detaching the writer's own identity from the statement, hence making it more authoritative:

In conclusion, there is much speculation about the safety and health risks concerning mobile phones.

Evident are two dependent clauses that create marked themes. First is a clause of concession:

While there are many concerns for public safety, *the case against the mobile phone is yet to be proven.*

Second is a clause of time which appears in a clause complex in which the writer's identity is re-asserted:

However, «until something concrete can be proven», I see the mobile phone as a harmless tool of communication.

The linguistic resources for a mid-adolescence discussion in science include: mental processes, non-specific participants, attitudinal expressions, complex clauses, causal clauses, conditional clauses, detachment, engagement, rhetorical questions, reference to others, appreciation, judgement, authoritativeness, dependent clauses, marked themes and a clause of time.

Christie and Derewianka (2008:210) emphasize that this genre is unique since its main purpose is to review evidence and offer opinion. The writer often cites from conflicting sources of information and makes it clear that he is offering personal judgement. The next section considers lexical density in interpretative genres.

3.5 LEXICAL DENSITY IN THE INTERPRETATIVE GENRES

According to Christie and Derewianka's (2008:210) observation, reports for early childhood show similar lexical identity while those of late childhood to adolescence show varying densities. In the case of explanations, writings begin with very low lexical density and keeps on expanding. The discussion has moderate density. All in all, the density of texts is said to be increasing beyond late childhood into adolescence. However, lexical density will not be included in the analysis in chapters four and five. The next paragraph concludes chapter three.

3.6 CONCLUSION

This chapter has outlined linguistic resources for reading and writing genres effectively of which the primary concern is the context of culture and the context of situation. It has been stated that the consideration of the two levels of context involves three contextual aspects, namely subject matter or topic (field), roles and relationships (tenor) and the mode (spoken or written). These three cluster into three functions from which contextual resources are realized at clause level and beyond the clause. The resources are also grouped into three categories. Firstly, ideational resources occur at clause level which involve processes, participants and circumstances, while logical relationships involve clause types and clause combinations with created relationships. Secondly, interpersonal resources are concerned with resources for interaction at clause level and resources for creating patterns of evaluation and engagement with the audience, beyond the clause. Thirdly, textual resources are related to theme and rheme at clause level while concerned with cohesive devices beyond the clause. In addition was grammatical metaphor and lexical density. The chapter also discussed the linguistic resources employed in science as a content subject. It is evident that processes by which children become experts in writing science are not different from those deployed in other subjects. However, meanings in science are different from those of other subjects as science studies the phenomena of the natural world. For example, in a description genre, the grammar is employed differently than it would be used in geography or economics. So, meanings are peculiar in each genre and field, meaning that children need to understand and master genres and linguistic resources applicable in a particular genre in a specific discipline. According to Christie and Derewianka's (2008) research, children shift from the congruent to the non-congruent and from the immediate to the abstract. The next chapter, presents a genre-based analysis of agricultural science texts in the Siswati language system.

CHAPTER FOUR

CONTEXTUAL GENRE-BASED SENTENCE ANALYSIS OF INFORMING AGRICULTURAL SCIENCE TEXTS IN THE SISWATI LANGUAGE SYSTEM

4.1 INTRODUCTION

The previous chapter explored language resources used in Systemic functional linguistics (SFL) grammar and in various science texts, in English. Chapter four will focus on genre-based analysis of prominent genres used in agricultural science texts in the siSwati language system, using the schematic structure presented by Feez and Joyce (1998), Martin and Rose (2013) and Christie and Derewianka (2008). Scientific genres are devoted to interpretation that involves classification, description, explanation, arguments and procedure. In this chapter, the aim is to explore how the genre approach in teaching and writing agricultural science texts is relevant for grade twelve learners whose first language is Siswati. The analysis will investigate four informing genres, starting with two reports, followed by a consequential explanation and lastly a procedural recount translated from a grade twelve agricultural science text book in South Africa. Evaluating genres, which are arguments, will be discussed in the next chapter.

Considering the July 1997 language-in- education policy, the new constitution of the Republic of South Africa, the government, and the Department of Education, acknowledges the promotion of multilingualism, and the development of the official languages due to the existence of cultural diversity. The policy also states that the department of education assumes an additive approach to bilingualism as the general orientation of South Africa's language-in-education policy. In addition, policy is said to be guided by the results of comparative research, both locally and internationally. In terms of the general aims of the South African Curriculum, the National Curriculum Statement for Grades R-12 gives expression to what is regarded to be knowledge, skills and values worth learning. It will ensure that learners acquire and apply knowledge and skills in ways that are meaningful to their own lives. In this regard, the curriculum promotes the idea of grounding knowledge in local contexts, while being sensitive to global imperatives. The genre-based approach to learning and teaching is in line with the consequences anticipated in the National Curriculum Statement. The policy also states that individuals have the right to select the language of learning and teaching, which right is to be exercised within the overall framework of the obligation on the education system to promote multilingualism. The genre approach does exactly what is expected by the policy as its hypothesis involves the use of the first/home language (L1) together with the

second/additional language (L2). The genre approach analysis in this writing will specify on the Siswati language system.

Following the SFL theory discussed in chapters two and three, in the first stage, the analysis will explore each text as regards its purpose and generic structure. The second stage will consider language components and text organisation while the third stage will be subdivided into three categories, considering the functions of language in the siSwati language system (i.e. ideational metafunction, textual metafunction and interpersonal metafunction). The first category presents considers the resources of the ideational metafunction beyond the clause, which are logical relationships between events involving clause types and clause relations. The ideational metafunction also explores how language is used to represent our experience at the clause level, i.e. processes (*verbal groups*), participants (*nominal phrases*) and circumstances (*adverbs prepositional phrases*). The second category deals with textual metafunction, which is concerned with information structure. It explores coherence and cohesion, based on grammatical cohesion (reference, substitution, ellipsis and conjunction) and lexical cohesion beyond the clause, i.e. reiteration, inclusion, synonymy, antonymy, hyponymy, meronymy and collocation. In the third category, analysis is based on the interpersonal metafunction beyond the clause- the appraisal system that provides language of evaluation: affect, graduation and engagement.

An introduction to report genres used in agricultural sciences is given in the following section.

4.2 GENRE TYPES AND LINGUISTIC RESOURCES IN AGRICULTURAL SCIENCE TEXTS

There are three types of reports, namely compositional/taxonomic, classifying and descriptive reports. All these have been discussed in chapter two, in terms of purpose and stages. It was mentioned that compositional reports describe parts of the whole; classifying reports classify and describe types of phenomena, while descriptive reports classify and describe a phenomenon. In the following section, we shall focus on compositional and classifying reports. Consider, first, the analysis of a compositional report, with a model text in 4.1.

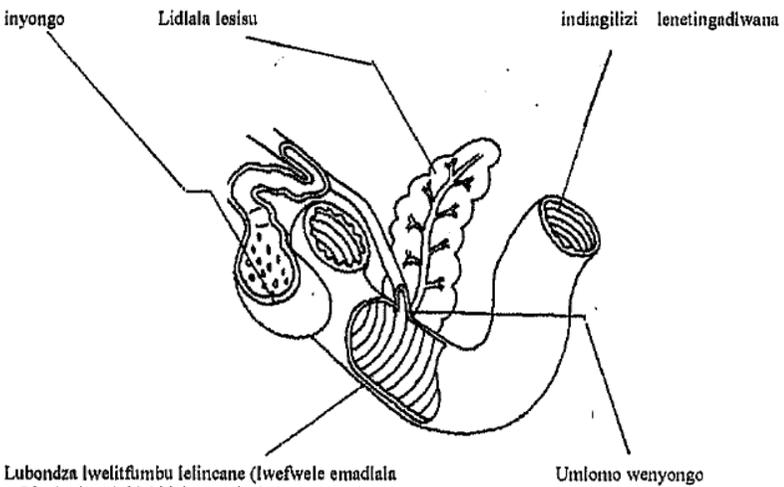
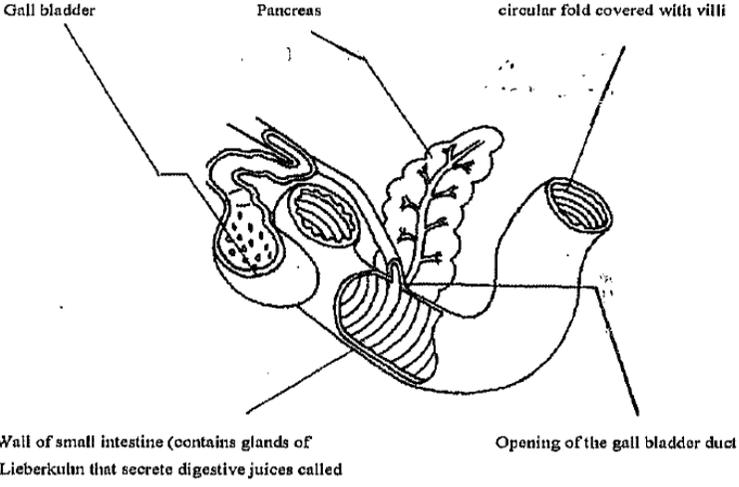
4.2.1 The compositional report: Litfumbu lekudla letilwane tekufuywa (*The alimentary canal of farm animals*)

Text 4.1

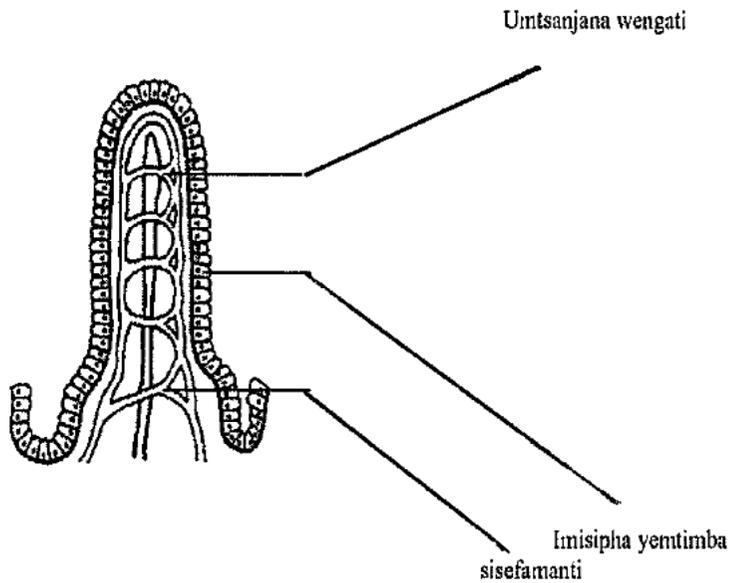
<p>1] Kondliwa kwetilwane kuphatselene nekudla lesikudlako silwane nendlela lekugayeka ngayo loko kudla kute kulangabetane netidzingo tesilwane kanye nekusebenta kwekudla emtimbeni. Kondla kungulenyeye yetintfo letibitako ekukhuliseni 5] tilwane tasepulazini.</p> <p>Tilwane temfuyo tidzinga kudla lokunemaseko lamatsatfu kute kulangabeteke tidzingo tato temihla yonkhe. Bafuyi kumele bayicondzisise indlela yekondla tilwane nekusebenta kwekudla ekukhuleni kwemtimba nasemkhicitweni.</p> <p>10] Tilwane atifanani, ematfumbu ato ekuhambisa kudla ehlukeni ahambelana nendlela yekugayeka kwekudla nekusebenta kwako emtimbeni. Nguleso naleso silwane sinesidzingo lesitsite sesidlo lesondla umtimba. Inchabhayi isala kumfuyi kutsi ahangabetane naleti tidzingo ngetindlela letingabiti naletisebentako.</p>	<p>Animal nutrition concerns the food that an animal eats, the way in which this food is digested to meet the animal's requirements and how the food is used in the animal's body. Feed is the single largest cost item in the production of farm animals.</p> <p>Farm animals need a well-balanced mixture of feeds to fulfill their daily needs. Farmers must understand animal nutrition and how animals utilize nutrients for growth and production. Different types of animals have different alimentary canals to suit different methods of digestion and absorption. Each animal has a specific nutrient requirement and the challenge for a farmer is to meet these requirements in a cost-effective way.</p>
<p>15] Kulesigaba utawufundza ngesakhiwo selitfumbu lekudla letilwane letehlukene.</p>	<p>In this unit you will learn about the structure of the alimentary canal of different animals.</p>
<p>Umlomo</p>	<p>The mouth</p>

<p>Kugayeka kucala emlonyeni. Kudla kuyacobeka kube timvushwana letincane ngekuhlafunwa ngematinyo. Lokugayeka loku kufaka ekhatsi emakhemikhali latsite. Kuhlafuna kusita 20] ekuhlanganiseni kudla nematse.</p> <p>Emadlala ematse akhicita ematse angene emlonyeni. Ematse wona acuketse tintfo letingagucuki letisematseni lekungutona ticala esentekweni sekugayeka kwekudla. Kucoba sitashi sibe ngushukela lowejwayelekile. Ematse aphindze asebente njenge mhlanganisi 25] wetimvushwana tekudla bese lulwimi lwenta kudla kube yibhola noma ibhola yekudla lelungela kumitwa.</p>	<p>Digestion starts in the mouth. Food is broken down into small pieces by chewing using teeth. This is mechanical digestion. Chewing helps to mix the food with saliva. Salivary glands secrete saliva into the mouth. Saliva contains the enzyme salivary amylase, which starts the chemical process of digestion. It breaks down starch into simple sugar molecules. Saliva also acts as a binding agent to hold food particles together and the tongue rolls the food into a ball or bolus ready for swallowing.</p>
<p>Umphimbo</p> <p>Emphinjeni (umphimbo) litfumbu lelinesakhiwo lesicala ngemuva kwemphimbo liye esiswini. Kuvaleka nekuvuleka kwelitfumbu kufuca kudla kwehle emphinjeni kuye esiswini. Kunesenteko lapho 30] khona kudla kufuceka kusuke esiswini kuye emlonyeni, lokwenteka nasihlanta silwane. Lamamasela layindingilizi labusheleleti alawula kuhamba kwekudla lokuya esiswini.</p>	<p>The oesophagus</p> <p>The oesophagus (gullet) is a tube-like structure that leads from the back of the throat (pharynx) to the stomach. Food is forced down the oesophagus to the stomach by peristalsis. Reverse peristalsis (retro-peristalsis), during which food is moved from the stomach to the mouth, can occur during vomiting. The cardiac sphincter, a ring of smooth muscle, controls the movement of food into the stomach.</p>
<p>Sisu</p> <p>Sisu sakheke njengesitselo liphe, silisakazana lelinemamasela ladudlile. Sisu sengulube singetfwala emalitha lalinganiselwa</p>	<p>The stomach</p> <p>The stomach is a pear-shaped, sac-like structure with thick muscular walls. The stomach of the pig has a capacity of about eight liters.</p>

<p>35] kulasiphohlongo. Tindvonga taso ticuketse linani lelikhulu lemadlala lakhicita emanti lane esidi . Loku kunetintfo letingagucuki nagesi lote umbala, logaya kudla. Lokudla nejusi yemadlala kuyadibana, kuvaleka nekuvuleka kweludvonga lwesisu kukhicita kudla nejusi, emanti lashubile labitwa ngekutsi ngemamasela</p> <p>40] layindingilizi lavulekako kute akhulule kudla nejusi kungene etfunjini lelincane.</p>	<p>The walls contain a large number of glands that secrete gastric juice. This contains enzymes and hydrochloric acid, which digest food. The food and gastric juice are mixed by contractions of the stomach wall to produce chyme, a thick liquid also called pulp or mash. At intervals, the pyloric sphincter, a ring of muscle, opens to release small amounts of chyme into the small intestine.</p>
<p>Litfumbu lelincane</p> <p>Litfumbu lelincane liphayiphi lelidze, lelincama. Lehlukaniswe ngetigaba letintsatfu: sitfo sekucala selitfumbu lelincane, yincenye yelitfumbu lelincane lesemkhatsini wesitfo sekucala nencenye</p> <p>45] yesitsatfu legcinako (buka Sakhiwo 2.1). Lokunye kugayeka kwenteka esigabeni sekucala selitfumbu lelincane. Emadlala laselubondzeni lwelitfumbu lelincane e Liyeberukuhini, akhicita ijusi yekugaya leyatiwa ngekutsi yi sakhasi enterikusi (Sakhiwo 2.3). Tintfo letakha umtimba, emafutsa nalokuniketa emandla ekudleni</p> <p>50] kuyacobeka kuze kungene emasotjeni esigaba sesitsatfu selitfumbu lelincane. Incenye lesemkhatsini neyesitsatfu ngutona tisebenta kumunya lokusondlo. Silungiselelo selitfumbu lelincane sivikelwe esentekweni setintfo letingagucuki letiletfa ngemafinyela.</p>	<p>The small intestine</p> <p>The small intestine is a long, thin tube. It is divided into three parts, namely the duodenum; jejunum and ileum (see Figure 2.1). Some digestion takes place in the duodenum. Glands in the wall of the small intestine, called the glands of Lieberkühn, secrete a digestive juice known as succus entericus (Figure 2.3). Proteins, fats and carbohydrates in food are broken down into simpler substances that can be absorbed by the cells of the ileum. The jejunum and ileum are the main sites of absorption of nutrients. The lining of the small intestine is protected from the action of the digestive enzymes by mucus.</p>

 <p>Sakhiwo 4.1 Luhlangotsi loludze lwelitfumbu lelincane lesilwane</p>	 <p>Figure 4.1 Longitudinal section through a part of the small intestine of an animal</p>
<p>55] Litfumbu lelincane letilwane tasepulazini lakhelwe kona kutsi limunye lokondla umtimba. Letimphawu tesakhiwo letilandzelako tikhulisa lizinga lekungenisa kudla etfunjini lelincane: Lidze kakhulu, lilingalinganiselwa emamitheni lalishumi nesihlanu Lingeqhatsi lendzawo etfunjini ligobeke kanyenti, loko kwengeta</p>	<p>The small intestine of farm animals is adapted for the absorption of nutrients. The following structural features increase the surface area of the small intestine where absorption occurs: It is very long, about 15 m in length in the pig The inner surface has many folds that increase the surface area over which</p>

60] indzawo yekungena kwekudla lokubalelwa emahlandleni lamatsatfu.
 Lemigobo yembeswe tintwanyana letincane letikhombe etulu letibitwa ngekutsi ngema vili (bunye= vilasi), lokuchubeka kwengete sibalo sendzawo siphindzeke ngemahlandla lalishumi (buka Sakhiwo 65] 2.3 na 2.4).



Sakhiwo 4.2 Tiphambano letihamba etingalweni

Litfumbu lelikhulu

nutrients can be absorbed threefold

- The folds are covered with thousands of tiny finger-like projections called **villi** (singular = villus), which further increase the total surface area tenfold (see Figures 2.3 and 2.4).

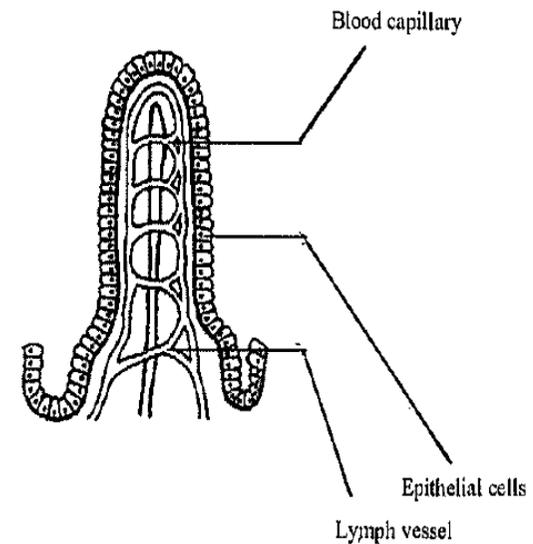


Figure 4.2 Cross section through a villus

The large intestine

<p>Kudla lokungakagayeki, lokungakamunyeki etfunjini lelincane kuyengca kuye etfunjini lelikhulu. Lapha emadlala emafinyela akhicita wona emafinyela. Loku kusita kushelelisa lendlela yekudla. Litfumbu lelikhulu lishubhu lelikhulu lelingehlukaniswa ngetigaba 70] letintsafu: lapho kuhlangana khona litfumbu lelikhulu nalelincane, incenye lengentansi lenkhulu yelitfumbu lelikhulu nesigaba sekugcina lesiya emdzidzini. Umsebenzi lomkhulu welitfumbu lelikhulu kumunya emanti kulokuyidodi bese abuyela emuva emtimbeni. Loku kwenteka etigabeni letimbili tekugcina 75] telitfumbu lelikhulu. Lamanye emagciwane abolela emkhatsini welitfumbu lelincane nalelikhulu. Kudla lokunyenti lokungakagayeki kuyacina. Lamangcoliso lamantana lakhiwe ngekudla lokungakagayeki, umsipha, nedodi, kugcineka kuphindze kulakanyane esigabeni sekugcina selitfumbu lelikhulu lesilandzelwa 80] ngumdzidzi.</p>	<p>Undigested food not absorbed in the small intestine passes into the large intestine. Here mucus is secreted by mucous glands. This helps to lubricate the passage of the food.</p> <p>The large intestine is a large tube that can be divided into three parts: the caecum, the colon and the rectum.</p> <p>The main function of the large intestine is to absorb water from the wastes and to return this water to the body. This occurs mainly in the colon and rectum. Some bacterial fermentation occurs in the caecum.</p> <p>The consistency of the undigested food becomes more solid.</p> <p>These semi-solid faeces, made up of undigested food, fiber and wastes, are stored and compacted in the rectum.</p>
<p>Umdzidzi</p> <p>Umdzidzi usebenta njenge ncencana legadza kugeleta kwemanti etfunjini lelawulwa limasela leliyindingilizi leligadza kuvuleka nekuvaleka kwemdzidzi. Ngesikhatsi liphumula lelimasela, emangcoliso lagcineke ekugcineni kwelitfumbu 85] ayakhululeka noma ayaphuma emtimbeni.</p>	<p>The anus</p> <p>The anus acts like a valve and is controlled by a sphincter muscle. When this muscle relaxes, waste matter stored in the rectum is released, or egested, from the body.</p>

4.2.1.1 The generic structure of a compositional report

The above text exemplifies the generic structure of a compositional report. Recall that in chapter two it was stated that the aim of compositional reports is to describe parts of the whole, i.e. **litfumbu lekudla letilwane temfuyo** (*the alimentary canal of farm animals*). As already mentioned in section 2.4.2.4, a compositional report has two stages. The first stage classifies and describes whole and parts. In text 4.1, the parts of the alimentary canal are classified and described. In the next paragraph we will consider the properties of the classification stage.

The classification stage

In lines 14-24, the general unit of the classification stage is **sakhiwo lesivamile selitfumbu lekudla** (*the general structure of the alimentary canal*). The parts which will be described are mentioned in line 22-24 **umlomo** (*mouth*), **umphimbo** (*the oesophagus*), **sisu** (*the stomach*), **litfumbu lelincane** (*the small intestine*), **litfumbu lelikhulu** (*the large intestine*) and **umdzidzi** (*the anus*). This is described as a text preview whose function is to create a link between the classifying stage that identifies and the description stage. In text 4.1, the writer indicates that information in the description stage will focus on parts of the alimentary canal of farm animals. In most cases the classification stage includes a definition, i.e. in line 14 **Litfumbu lekudla liphindze libitwe ngekutsi yindlela yekugaya noma litfumbu langentansi.** (*The alimentary canal is also called the digestive tract or gut of the animal*). Notice that in lines 1-10 the text begins with a background stage where information is provided so that the reader will have a better understanding of the alimentary canal of farm animals. In the next paragraph genre segments are exemplified in the classification stage.

The classification stage of a compositional report includes other genre segments, i.e. a genre segment of explanation is displayed in line 1, defining the alimentary canal and in lines 19-24, explaining the terms **kufakwa** (*ingestion*), **kwehlisa** (*digestion*), **kungena** (*absorption*) and **kukhipha** (*egestion*). Next we turn to the description stage.

Description Stage

The description stage is displayed in lines 28-85 in relation to all parts of the alimentary canal already listed in the classification stage. In the description stage the first topic sentence of each paragraph states what the paragraph will be about and then detailed information is given

about the parts to be described with respect to extent, functions, behaviour, location and appearance. For example, lines 28-29 relate to food in the mouth, lines 49-53 to the description of appearance, capacity, contents and functions of **sisu** (*the stomach*), lines 59-84 relate to the appearance, contents and capacity of **litfumbu lelincane** (*the small intestine*). Another description is found in lines 85-99 concerning the appearance and function of **litfumbu lelikhulu** (*the large intestine*) and in lines 100-104, relating to the behaviour and appearance of the last part **umdzidzi** (*the anus*).

This stage also exhibits other genre segments besides those of description. The naming of all the parts of the alimentary canal is another way of classifying them. A classification segment is exemplified in lines 59- 62 where parts of the small intestine are classified, i.e. **sitfo sekucala** (*the duodenum*), **incenye lesemkhatsini** (*the jejunum*), **nencenye yekugcina** (*and the ileum*). In lines 87-91, the large intestine is classified into three parts: **lapho kuhlangana khona litfumbu lelikhulu nalelincane** (*the caecum*), **incenye lengekhatsi lenkhulu yelitfumbu lelikhulu** (*the colon*) and **nesigaba sekugcina lesiya emdzidzini** (*the rectum*).

In addition, genre segments of explanation are displayed in the description stage, i.e. in lines 33- 42 an explanation is given of what happens when food is in the mouth; lines 50-58 when in the stomach; lines 62-84 in the small intestine; lines 85-99 in the large intestine and in lines 100-104, in the anus. It is worth noting that in the siSwati linguistic system, it is quite impossible to describe without involving explanations. For this reason, the distinction between explanation and descriptions may be unclear at times.

Typically, the siSwati compositional report exhibits three stages namely: background, classification and description, including diagrams to help learners understand the language and field in agricultural science. In the following paragraph the organisation of compositional reports is discussed.

4.2.1.1.1 The organisation of compositional reports

It has been stated that compositional reports aim at describing the parts of a group or system. In writing, information has to be organised in a particular style. The organisation follows stages which begin by giving the general classification which here is **litfumbu lekudla letilwane temfuyo** (*the alimentary canal of farm animals*). Then the parts to be described are identified in sub-headings as **umlomo** (*the mouth*), **umphimbo** (*the oesophagus*), **sisu** (*the stomach*), **litfumbu lelincane** (*the small intestine*), **litfumbu lelikhulu** (*the large intestine*)

and **umdzidzi** (*the anus*). Information for each part is presented in one paragraph. It is advisable to include a diagram, as will be illustrated later on, in the analysis of textual resources. In the next section, we will look at characteristic language components of compositional reports.

4.2.1.1.2 Language components of compositional reports

In terms of the characteristic language components of a compositional report, text 4.1 exhibits several of the language components of compositional reports, i.e. reports tell how a phenomenon is all the time, using the present tense. In the classification stage, the universal present tense or relational verb **li-**(*is*) is used in line 88-92 **litfumbu lelikhulu lishubhu lelingehlukaniswa ngetigaba letintsatfu...** (*the large intestine is a tube that can be divided into three parts...*). When describing behaviours, action verbs are used, i.e. line 46 **emadlala ematse akhicita...** (*salivary glands secrete...*). It is important to note that in the siSwati language system, the verb's subjects are realised in the verbal prefixes of the referred noun class.

The language of compositional reports defines the whole in the general classification, which is seen in line 15 **Litfumbu lekudla li...** (*The alimentary canal is...*). The language also refers to the topic in general, using general nouns, i.e. **litfumbu lekudla** (*the alimentary canal*), **indlela yekugaya** (*digestive tract*), **umlomo** (*mouth*), **sisu** (*stomach*), **litfumbu lelincane** (*the small intestine*), **litfumbu lelikhulu** (*the large intestine*) and **umdzidzi** (*anus*). These examples manifest that language in compositional reports express a lot of information into noun groups. In addition, the language in compositional reports uses the beginning of the sentences to focus on one whole and its parts, i.e. **litfumbu lelincane...** (*the small intestine...*) and its three parts: duodenum, jejunum and ileum.

Knapp and Watkins (2005:98-99) state that action verbs are used metaphorically to create effect, i.e. lines 28-29 **Kudla kufucwa ngemagagasi ekuvaleka...** (*Food is pushed by waves of contraction...*). Adjectives are used to add more specific information to nouns, in line 59 **Litfumbu lelincane liphayiphi lelidze lelincama.** (*The small intestine is a long, thin tube*). The adjectives **lelincane** (*small*), **lelidze** (*long*) and **lelincama** (*thin*) add information to the noun phrase **litfumbu** (*the intestine*). Adverbial phrases are used to add extra information about the place or time, as in line 85-86 **Kudla lokungakagayeki lokungakamunyeki etfunjini lelincane kuyengca kuye etfunjini lelikhulu.** (*Undigested food not absorbed in the*

small intestine passes into the large intestine). This example gives information about place where undigested food is stored **etfunjini lelikhulu** (*in the large intestine*). Information about time is illustrated in lines 102-104 **Ngesikhatsi liphumula lelimasela, emangcoliso lagcineke ekugcineni kwelitfumbu ayakhululeka...** (*When this muscle relaxes, waste stored in the rectum is released...*). The time is **ngesikhatsi liphumula lelimasela ...** (*when the muscle relaxes*).

Further descriptions use a range of devices to create effects such as personification, as in lines 39- 42 **Kucoba sitashi sibe ngushukela...** (*It breaks down starch into simple sugar...*), **Ematse aphindze asebente njengemhlanganisi...** (*Saliva acts as a binding agent...*) and **...lulwimi lwenta kudla kube yibhola...** (*the tongue rolls the food into a ball...*). Similes are also used in line 49 **Sisu sakheke njenge sitselo liphe, silisakazana...** (*The stomach is a pear-shaped, sac-like...*).

The writer of the report was able to use most of the language components that characterise a compositional report. These are universal present tense, relational verbs, action verbs, metaphors, adjectives, adverbs, adverbial phrases, similes and personification.

In summary, the text in 4.1 exemplifies a range of language components that characterise a compositional report. The following paragraph shall be about linguistic resources employed in a compositional report.

4.2.1.2 Linguistic resources representing meaning and meaning relationships

In the previous section, language components have been analysed according to Feez and Joyce (1998) and Knapp and Watkins (2005). This section shall explore linguistic resources proposed by Christie and Derewianka (2008) and Rose and Martin (2012). Linguistic resources are used to represent types of experiences that learners have come across. These include ideational resources (field) which deal with topic of social or academic activity, textual resources (tenor) that are concerned with social relations to do with status and solidarity, and interpersonal resources (mode), relating to the role of language and degree of interactivity and flow. The analysis on ideational metafunction resources shall be introduced in the following paragraph.

4.2.1.2.1 Ideational metafunction

The above text demonstrates a variety of linguistic resources, i.e. choices from the siSwati language system which create particular ideational meanings. Recall that it has been discussed in the previous chapter that the ideational function of language is mainly concerned with elements within the clause and among clauses to represent experiences of the writer (in terms of the subject content or topic of the writer) where clause combinations construe various logical relationships among clauses.

In this sub-section, selected examples are analysed in terms of the logical metafunction. These are grammatical resources for building up grammatical units into complexes, i.e. combining two or more clauses into a complex one. The experiential metafunction refers to the grammatical resources involved in construing the flow of information from experience, i.e. processes, participants and circumstances through the unit of the clause. In addition, the grammatical metaphor will be examined, subsequent to the discussion of the ideational metafunction of language.

In terms of the logical relationships of the siSwati language system, text 4.1 exhibits a variety of linguistic resources representing a wide range of clause types and clause combinations that create particular ideational meanings and logical relations among clauses. Consider, for example, the segment in lines 1-3, repeated here.

Kondliwa kwetilwane kuphatselene nekudla lesikudlako silwane nendlela lekugayeka ngayo loko kudla kute kuhlangabetane netidzingo tesilwane kanye nekusebenta kwekudla emtimbeni. (*Animal nutrition concerns the food that an animal eats, the way in which this food is digested to meet the animal's requirements and how the food is used in the animal's body.*)

In terms of the logical metafunction, the sentence in lines 1-3 contains a number of clauses of unequal dependency. The dominant clause, realised as a present tense passive verb clause, **Kondliwa kwetilwane kuphatselene...silwane** (*feeding of animals concerns...animal...*), realises an unequal status relationship with a number of dependent clauses that represent different logical relationships with the dominant clause. The present tense passive verb clause **kondliwa** (*nutrition...*) realises grammatical metaphor, in that it is a normalisation of the verb **ondla** (*feed*). The verb phrase **kuphatselene...** (*concerns...*) is followed by two prepositional phrases, with the preposition **na-** (*with*), each containing a dependent relative clause **nekudla**

lesikudlako (*the food that it eats...*) and **nendlela lekugayeka** (*the way in which it is digested...*). The second prepositional phrase is combined with an associative conjunction **ne-** (*with*), creating a meaning relationship of addition. The noun phrase in **nendlela** (*with the way*) in the second relative clause has a further dependent clause **kute kuhlengabetane...** (*so that it meets...*), introduced by a conjunction **kute...** (*so that*) which creates a meaning relationship of purpose to the digestion process expressed in the preceding clause. In this dependent clause, a clause of equal dependency **nekusebenta...** (*with the use...*) is introduced by a conjunction **kanye** (*and*) which creates a meaning relationship of addition to the process of meeting the requirements. Similarly, the associative conjunction **ne-** (*and*) conjoins the last infinitive phrase, realising a relation of addition to the process of animal nutrition.

With regards to the experiential metafunction, the dominant clause contains a verb phrase **kuphatselene...** (*it is concerned...*), representing a material process, with the impersonal subject agreement **ku-** (*it*). The passive verb subject clause **kondliwa...** (*the feeding...*), realises grammatical metaphor with the nominalization of the verb **ondla** (*feed*) and has an implied actor participant. The verb phrase **kondliwa...** (*the feed...*) is post-modified by a possessive phrase **kwetilwane...** (*of animals...*), expressing the goal participant of the process of feeding. The verb in the verb phrase **kuphatselene...** (*concerns...*) takes theme participants which are represented by three noun phrases **nekudla...** (*with food...*) **nendlela...** (*and the way...*) **nekusebenta** (*and the use...*). In the relative phrase **lesikudlako...** (*which it eats*), the actor participant is **silwane...** (*animal...*). The noun phrase **nendlela...** (*the way...*) is post-modified by a possessive phrase **lekugayeka...** (*in which it is digested...*) containing an infinitive clause which realises the circumstance of manner. In the dependent clause, the verb in the subjunctive clause **kute kuhlengabetane...** (*in order to meet...*), realises a behavioural process, having a theme participant **kudla...** (*food...*) and goal participant in the associate noun **netidzingo...** (*with requirements...*), realising a relation of accompaniment to the process of meeting. The associate noun illustrates grammatical metaphor in that it is a normalisation of the verb **dzinga** (*require*). The clause **nekusebenta kwekudla...** (*use of food...*) represents the third noun phrase that is part of the goal participant of the clause **kuphatselene...** (*concerns...*). The goal participant occurs in the prepositional phrase **nekudla...** (*with food...*). The verb in the verb phrase **lokugayeka...** (*that is digested...*) represents a behavioural process. The locative noun **emtimbeni...** (*in the body*) realises a circumstance of place relating to the process of the use of food in the body.

Consider, next, the analysis of two sentences in the following segment in lines 15-18 repeated here, in terms of the logical and experiential metafunction displayed by the siSwati language system.

Litfumbu lekudla liphindze libitwe ngekutsi yindlela yekugaya noma litfumbu langentansi. Leli litfumbu lelidze lelehlukaniswe ngetifundza letehlukene letibhekene nekungena kwekudla, kwehlisa, kusebenta nekuphuma kwekudla lokungakagayeki.

(The alimentary canal is also called the digestive tract or gut of the animal. It is a long tube that is divided into several regions that are specialized for ingestion, digestion, absorption and egestion.)

In terms of the logical relationships among clauses, the two sentences in lines 15-18, exhibit clauses of unequal and equal status demonstrated in two sentences. The first sentence displays two clauses of equal dependency. The first clause in line 15-16 **Litfumbu lekudla liphindze libitwe...** (*The canal for food is also called...*) is the dominant, projecting clause with the subjunctive **libitwe** (*is called*) introduced by a deficient verb **liphindze** (*it is also*), creating a meaning relationship of addition to the previous clause. The noun phrase **litfumbu langentansi...** (*the lower intestine...*) represents the second coordinate noun phrase introduced by the conjunction of equal dependency **noma** (*or*) which creates a meaning relationship of alternative to the preceding noun phrase.

In the second sentence in line 16-18, an unequal status relationship is displayed among its clauses. The noun phrase in the first independent clause, representing the initiating clause **leli litfumbu lelidze lelehlukaniswe...** (*this is a long tube that is divided...*) is introduced by a demonstrative first position. The dependent relative clause **letibhekene...** (*that looks at...*) is followed by a sequence of three infinitive nouns **nekungena** (*getting in*) **kwehlisa** (*going down*) which are combined by the associative conjunction **na-** (*about*), expressing a relation of association. The third one, **kuphuma** (*the going out*) is also introduced by a conjunction **na-** (*and*) which creates a meaning relationship of addition to the previous clause.

In terms of the experiential metafunction, the segment in lines 15-18 displays a dominant clause in the first sentence containing a verb in the verb phrase **libitwe** (*it is called*), realising a relational process associated with two participants. The theme participant is represented by the subject marker (or concord), AgrS **li-**, referring to the pronominal meaning of the noun phrase **litfumbu** (*the canal for food*) which is post-modified by a possessive phrase **lekudla**

(of food) and a locative phrase **langentansi** (of the lower part), both expressing a relation of attribute to the noun **litfumbu**.

The second sentence in lines 16-18, includes two relative clauses; **lelehlukaniswe** (that is divided), representing a relational process with two participants. The participant carrier is represented by the subject concord **le-** (it), referring to the pronominal meaning of the noun **litfumbu** (a tube...) and a goal participant **ngetifundza letehlukene** (in different regions) in a prepositional phrase with the preposition **nga-** (in) The noun in the prepositional phrase **ngetifundza** is post-modified by a relative phrase **letehlukene** (that are divided), realising a relation of attribute to the head noun denoting the meaning of regions. The verb **letibhekene** (that are specialised) represents a behavioural process with four goal participants realised by the infinitives in **nekungena** (ingestion), **kwehlisa** (digestion), **kusebenta** (absorption) and **ne kuphuma** (and egestion) which are post-modified by a possessive phrase **kwekudla** (of food), expressing the goal participant of the process of egestion.. The sentence concludes with a circumstance of condition in the possessive infinitive phrase **lokungakagayeki** (which is undigested) referring to the noun phrase **kudla** (food).

The segment in lines 16-18 illustrates the occurrence of the nominal infinitive as grammatical metaphor, in that the three nominal infinitives **kungena** (ingestion), **kwehlisa** (digestion), **kusebenta** (absorption) and **kuphuma** (egestion) are the nominalisation of the verbs **ngena** (ingest), **hlisa** (digest), **sebenta** (absorb) and **phuma** (egest).

Consider, next, the analysis of the sentence in the following segment of lines 39-41 in terms of the experiential and logical metafunction exemplified by the siSwati language system.

Ematse aphindze asebente njengemhlanganisi wetimvushwana tekudla bese lulwimi lwenta kudla kube yibhola noma ibhola yekudla lelungela kumitwa. (*Saliva also acts as a binding agent to hold food particles together and the tongue rolls the food into a ball or bolus ready for swallowing*).

In terms of the logical metafunction, the sentence in lines 39-41 exemplifies a complex combination of clauses involving a variety of relationships of expansion, expressing equal and unequal status dependencies. The dominant initiating clause **Ematse aphindze asebente...** (*Saliva also acts...*) is a complex clause. The deficient verb clause **aphindze asebente** (*they also act*) creates the meaning relationship of addition to the functions of saliva discussed in the preceding segments. The expanding phrase **umhlanganisi...** (*a binding*

agent) is introduced by a conjunction **njenge** (*as*) which creates a meaning relationship of comparison to the process of binding. A conjunction **bese** (*and then*) joins a present tense equal dependency clause **lulwimi lwenta...** (*the tongue rolls...*), creating a relationship of sequence of actions. The noun phrase **kudla** (*food*) and the copulative noun **yibhola** (*a ball*) are combined by a conjunction **kube** (*so that*) which introduces the clause that realises the meaning relationship of purpose. Another joined phrase **ibhola yekudla...** (*bolus...*) is introduced by the conjunction **noma** (*or*) creating a meaning relationship of alternative to the preceding clause.

In regard to the experiential metafunction, the verb in the dominant clause **asebente** (*they work*) represents a behavioural process with a theme participant realised by the subject marker (concord), AgrS **a-** (*they*), referring to the pronominal meaning of the noun **ematse** (*saliva*). The noun phrase **umhlanganisi...** (*binding agent*) is introduced by a conjunction **njenge** (*like*), realising the logical meaning relationship of comparison. The noun phrase realises grammatical metaphor in that, it is a nominalization of the verb **hlanganisa** (*bind*). This noun phrase is post-modified by the possessive phrase **wetimvushwana** (*small particles*) of which the noun head is also post-modified by the possessive phrase **tekudla** (*of food*). The two possessive phrases express a relation of attribute to food. The verb in the verb phrase **lwenta** (*rolls*) represents a behavioural process whose causer participant is **lulwimi** (*the tongue*). The goal participant is **kudla** (*the food*). The deficient verb clause **kube** (*to be*) in the nominal predicate represents a relational process that takes an impersonal participant experiencer represented by the prefix **ku** (*it*) referring to the noun **kudla** (*the food*). The noun phrase **ibhola** (*a ball*) in this nominal predicate is post-modified by a possessive phrase **yekudla** (*of food*) expressing a relation of attribute to food. The noun in the possessive phrase **yekudla** is post-modified by a relative clause realised by a circumstance of condition in the attribute **lelungela kumitwa** (*ready for swallowing*) relating to the process of eating. The passive infinitive verb **kumitwa** (*to be swallowed*), appearing as a complement of the verb in the clause **lelungela** (*that is ready*), contains a verb that realises a material process. The goal participant of the infinitive verb **kumitwa** (*to be swallowed*) is **ibhola** (*a ball*). Further, the infinitive realises grammatical metaphor in that it is a nominalization of the verb **mita** (*swallow*).

Consider, next, the analysis of the sentences in the segment in lines 48-49, repeated below.

Sisu sakheke njengesitselo liphe, silisakazana lelinemamasela ladudlile. (*The stomach is a pear-shaped, sac-like structure with thick muscular walls*).

In terms of the logical metafunction, the sentence in line 48-49 illustrates various clause types and the combination of two clauses of equal dependency. The dominant independent clause containing a nominal predicate is **silisakazana...** (*it is sac-like...*), a copulative nominal predicate that realizes the meaning relationship of being the same. The independent present tense clause **sakheke...** (*it is shaped...*) contains a conjunction **njenge** (*like*), realizing the meaning relationship of comparison to the preceding noun phrase **sitselo liphe** (*a pear fruit*).

In terms of the experiential metafunction, the diminutive noun in the copulative noun phrase **silisakazana...** (*it is like a sac...*) is post-modified by a relative clause with an associate predicate with prepositional phrase **lelinemamasela ladudlile** (*with thick muscular walls*), realising the circumstance of accompaniment (committative) with the sac-like structure. The relative **ladudlile** (*which are thick*) post-modifies the noun in the relative clause **lelinemamasela** (*which has got muscles*), expressing a relation of attribute to the head noun. This relative clause contains an associative conjunction **ne** (*with*), realising the meaning relationship of possession. The nominal predicate **silisakazana...** (*it is like a sac...*) realizes a relational process. The participant carrier is represented by the copulative prefix **si-** (*it*) of class 7, referring to the pronominal meaning of the noun **sisu** (*stomach*). The attribute is **silisakazana...** (*like a sac...*).

In the independent clause, the head noun **sisu** (*stomach*) of the subject noun phrase is followed by a complement **sakheke njenge liphe** (*is shaped like a pear*) realizing a material process. The noun phrase **liphe** (*a pear*) is pre-modified by the noun phrase **sitselo** (*fruit*), expressing relation of attribute. The theme participant is represented by the AgrS **sa-** (*it*), referring to the pronominal meaning of the noun **sisu** (*stomach*). The attribute is **njenge liphe** (*like a pear*), realizing a relation of comparison expressed in the conjunction **njenge** (*like*) already mentioned. The complement **sakheke** (*it is shaped*) realizes grammatical metaphor in that it is a nominalization of the verb **akha** (*shape*).

Consider, another segment in lines 91-94, which is repeated below.

Lamangcoliso lamantana lakhiwe ngekudla lokungakagayeki, umsipha, nedodi, kugcineka kuphindze kulakanyane esigabeni sekugcina selitfumbu lelikhulu

lesilandzelwa ngumdzi. (*These semi-solid waste, made up of undigested food, fiber and wastes, are stored and compacted in the rectum.*)

The sentence in lines 91-94 exemplifies clauses of both equal and unequal status relationship. The dominant initiating clause is the independent present tense passive clause **lakhiwe... nedodi** (*which are made up of...and wastes*) that contains a negative relative clause **lokungakagayeki...** (*that is not digested...*), realising the meaning relationship of condition to the noun food. The negative relative clause occurs with three coordinate noun phrases introduced by the preposition **nga-** (*by*) in **ngekudla...** (*by food...*), **umsipha...** (*fibre*) and **nedodi** (*and wastes...*) which are combined by the coordinate conjunction **ne-** (*and*). The conjoined noun phrase creates a meaning relationship of manner to the process realized by **lakhiwe** in the preceding clause. In the expanding clause, the dependent present tense passive clause **kugcineka...ngumdzi** (*it is stored...the rectum*) and an equal status clause **kulakanyane...** (*it is compacted...*) are combined by a deficient verb **kuphindze...** (*it is also*) which creates a meaning relationship of addition to the dominant clause. The expanding clause includes a locative noun **esigabeni...** (*at the stage...*), occurring with the copulative noun **ngumdzi** (*the rectum*), expressing a relationship of cause to the process of storing expressed by the verb phrase **kulakanyane** (*it is piled*).

With regards to the experiential metafunction, the passive verb in the verb phrase **lakhiwe** (*which are made up of*) represents a material process, with a participant theme, represented by the subject concord AgrS **la-** (*they*), referring to the pronominal meaning of the noun in the demonstrative noun phrase **lamangcoliso** (*these faeces*). The demonstrative noun phrase realises grammatical metaphor in that, it is a nominalization of the verb **ngcolisa** (*dirty*). This head noun is post-modified by a relative diminutive phrase **lamantana** (*the semi-solid*), expressing a relation of attribute to the demonstrative noun phrase. The verb phrase **lakhiwe** is post-modified by a prepositional phrase introduced by **nga-** (*of*) **ngekudla lokungakagayeki...** (*food that is not digested...*), realising the meaning relationship of attribute, specifically a circumstance of manner (*quality*), referring to food. The verb in the clause **kugcineka** (*it is stored*) represents a behavioural process with an impersonal theme participant represented by the impersonal subject prefix **ku-** (*it*). The clause also realises grammatical metaphor in that, it is nominalized from the verb **gcina** (*store*). This clause ends with a locative noun **esigabeni...** (*in the stage...*), realising the circumstance of place, relating to the process of storing expressed in the preceding clause.

Consider, next, the following segment in lines 97-99, repeated here, in terms of the logical and experiential linguistic resources of the siSwati language system.

Ngesikhatsi liphumula lelimasela, emangcoliso lagcineke ekugcineni kwelitfumbu ayakhululeka noma ayaphuma emtimbeni. (*When this muscle relaxes, waste matter stored in the rectum is released, or egested, from the body*).

In terms of the logical metafunction, the sentence in lines 97-99 displays relationships of unequal and equal dependency status among its clauses. The dependent clause in a present tense situative clause **Ngesikhatsi liphumula lelimasela...** (*When this muscle relaxes...*) combines with a dependent relative clause **lagcineke...** (*they are stored...*), creating a meaning relationship of time to the process of storing. The independent clause consists of coordinate clauses in the present indicative mood **ayakhululeka...** (*they are released...*) and **ayaphuma** (*they are egested*), joined by the conjunction **noma** (*or*), creating a meaning relationship of alternative in relation to the discarding of waste matter stored in the body.

In terms of the experiential metafunction, the above sentence displays a variety of linguistic resources that represent experience. In the dependent clause, the verb in the verb phrase **liphumula** (*it relaxes*) represents a behavioural process and takes a participant experiencer in the noun phrase **lelimasela** (*this muscle*) which realises the meaning relationship of emphasis to the type of muscle that allows food to be egested. This noun phrase is post-modified by a demonstrative first position singular **leli-** (*this*). In the expanding subjunctive independent clause, the verb in the relative phrase **lagcineke** (*which are stored*) is post-modifies the noun phrase **emangcoliso** (*waste*), expressing a relation of attribute to stored food. The verb in the verb phrase **lagcineke** represents an existential process. The verb takes a goal participant which is still **emangcoliso** (*waste*) and realises grammatical metaphor in that, it is a nominalization of the verb **ngcolisa** (*dirty*). The verb in the verb phrase **lagcineke** takes a locative complement **ekugcineni** (*in the rectum*), denoting place, which realises grammatical metaphor in that, it is a nominalization of the verb **gcina** (*end*). The locative complement is post-modified by the possessive phrase **kwelitfumbu** (*of the intestine*), expressing a relation of attribute to the locative denoted by the locative noun phrase ‘in the rectum’. The two independent indicative clauses have verbs in the verb phrases **ayakhululeka** (*they are released*) and **ayaphuma** (*they are egested*), representing a behavioural process. The experiencer participant is represented by the concord AgrS **a-** (*they*), referring to the noun **emangcoliso** (*waste*). This clause also ends with a locative noun phrase, realising a

circumstance of place (*origin*) **emtimbeni** (*from the body*) relating to the processes of releasing and egestion.

In **kondliwa kwetilwane kuphatselene...** (*animal nutrition is concerned...*), the material process has an implicit actor agreement realised by agreement **ku** (*it*). The behavioural processes are realised as material, i.e. **lulwimi lwenta...** (*the tongue rolls...*). The material processes build actions and are abstract, represented in passive verb phrases such as, in **lamangcoliso lamantana lakhiwe...** (*the semi-solid faeces **that are made up of...***)

In summary, in terms of the logical metafunction, a compositional report in the siSwati language system displays complex clauses of equal and unequal dependency, realising initiating and expanding clauses. These clauses create logical relations of addition, purpose, attribute, accompaniment, comparison, alternative and emphasis. The clause combinations include conjunctions, i.e. **ne-** (*and*), **bese** (*and then*), **noma** (*or*), **njenge** (*as*), **kute** (*to*), **ngesikhatsi** (*when*) and the copulative prefix **ngu-** (*is*). With regards to the experiential metafunction, participants involved in the processes include theme, goal, carrier, actor and experiencer. The participants are realized in either nominal groups or pronouns associated with AgrS and AgrO, referring to pronominal meanings of specific noun classes. Some of the nominal groups realise grammatical metaphor such as passive verb phrases, i.e. **lakhiwe** (*that are made up of*), demonstrative noun phrases, i.e. **lamangcoliso** (*the waste*), and in infinitive verb phrases, i.e. **kugcineka** (*it is stored*). Technical lexis is not common due to the fact that siSwati is an explanatory language. The processes involved are material processes used to describe (*made up of...*). An existential process is used to describe the digestion of waste matter, i.e. ...**emangcoliso lagcineke ekugcineni kwelitfumbu ayakhululeka noma ayaphuma emtimbeni.** (*...waste matter **stored** in the rectum is **released, or egested, from the body**) are in existence. The circumstances involved are those of manner, place and condition and are mostly realised in prepositional phrases and some in adverbs. Also, some circumstances involve grammatical metaphor as in cases with nominalised infinitives of which the participants associated with the processes realised by the verbs are expressed in possessive or prepositional phrases. This is common where there are infinitive nominals with implied actor participants.*

In the next section, the textual metafunction of compositional reports are explored.

4.2.1.2.2 Textual metafunction: Information structure

The concept of textual metafunction was discussed in chapter two, stating that it is concerned with the unity of texture which refers to the way in which resources such as patterns of cohesion build up cohesive and coherent texts. Unity of texture results when language items hang together in a meaningful and contextual way such that even referred items such as **loku** (*this*) can be retrieved from the social context in which the text is located. In the introduction, it was explained that the first section will include patterns of cohesion (devices used beyond the clause), categorised into grammatical cohesion and lexical cohesion. These terms were defined in chapter two, section 2.3.2.2. Consider, first, the analysis on patterns of cohesion.

Cohesion

It was stated that cohesion refers to the surface structure of a text, the way in which topics, events, entities and ideas develop and expand into a culturally guided logical manner. The main patterns of cohesion are grouped into grammatical cohesion, i.e. reference which may be anaphoric (pointing backwards), cataphoric (pointing forward), exophoric (pointing outside), endophoric (pointing inside) and homophoric (retrieved from cultural knowledge), substitution, ellipsis, conjunction and lexical cohesion (repetition, inclusion, synonymy, antonymy, hyponymy, meronymy and collocation).

In terms of the textual metafunction, the compositional text in 4.1 exhibits a variety of patterns of grammatical and lexical cohesion. Refer, first, to a segment in lines 1-15.

In terms of grammatical cohesion, the compositional report in 4.1 exhibits a number of cohesive devices. The segment displays an example of anaphoric reference, where a word or phrase points backwards, i.e. the class 15 subject concord **ku-** (*it*), in line 1, points backwards to the noun phrase **kondliwa kwetilwane** (*animal nutrition*), the infinitive prefix **ku-** (*it*) in the infinitive verb phrase in line 3 **kuhlangabetane** (*to meet*), points back to the class 15 noun **kudla** (*food*). In line 5, the subject concord **ti-** (*they*), in the verbal phrase **tidzinga** (*they need*) refers back to the noun phrase **tilwane** (*animals*). In line 6, the relative concord in **lokunemasiko** (*that has a balanced mixture*), refers back to the noun phrase **kudla** (*food*). In line 7, the subject concord **ba-** (*they*), in **bayicondzisise** (*they must understand*), represents the class 2 noun phrase **bafuyi** (*farmers*). In line 9, the possessive pronouns **tato/ato** (*their*), refer back to the noun phrase **tilwane** (*animals*). The segment displays two instances of cataphoric reference, in lines 1-2, the concord in the relative predicate **lesikudlako** (*that it*

eats), pointing forward to the class 4 noun **silwane** (*animal*) and the demonstrative pronoun second position **leso** (*that one*) in the copulative locative pronoun **nguleso** (*each*) and in the associate demonstrative pronoun **naleso** (*and every*), in line 11, pointing forward to the noun **silwane** (*animal*). Similarly, in line 13, the demonstrative concord in the associative first position demonstrative pronoun **naleti** (*and these*) points forward to the noun phrase **tidzingo** (*requirements*).

The occurrence of anaphoric reference points to already given information which is presupposed information while new information includes topics like the 6 headings in text 4.1 **umlomo** (*the mouth*), **emphinjeni** (*the oesophagus*), **sisu** (*the stomach*), **litfumbu lelincane** (*the small intestine*), **litfumbu lelikhulu** (*the large intestine*) and **umdzidzi** (*the anus*). New information is also represented by presupposed relations presented in brackets in line 43, in the locative phrase **emphinjeni (umphimbo)** (*the oesophagus (gullet)*), together with highlighted information in line 19, 20, 21 and 23, occurring in infinitive nominals **kufakwa** (*ingestion*), **kwehlisa** (*digestion*), **kungena** (*absorption*) and **kukhipha** (*egestion*)

In terms of lexical choices for communicative purposes, the segment in lines 1-15 demonstrates reiteration (*repetition*) which occurs in lines 2, 4, 6, with the use of the noun **kudla** (*food*), in the associative noun phrase **nekudla** (*with food*), the noun phrase **kudla** (*food*), in the possessive phrase **kwekudla** (*of food*), in the nouns denoting the animals that eat the food, realised in lines 2, in the noun phrase **silwane** (*animal*). In line 3, the possessive phrase **tesilwane** (*of an animal*) carries a noun that is repeated in line 5. In line 4, the noun **umtimba** (*the body*) is repeated in the locative nouns **emtimbeni** (*in the body*) and the noun phrase **umtimba** (*the body*). It is important to note that in the siSwati language system, repetition of words is frequent, though in English it is not a good style to continuously repeat the same word.

In lines 1 and 4, synonymy is exemplified in the clause **kondliwa kwetilwane...** (*animal nutrition...*) which have similar meaning with the infinitive noun **kondla** (*feed*). In line 6, the infinitive verb **kuhlangabeteke** (*to fulfil*) has the same meaning as in the verb phrase **ahlangabeteke** (*they are met*). Collocation is demonstrated in lines 1 and 5 in **kondliwa kwetilwane**, **tilwane temfuyo** (*farm animals*). These sets of words tend to co-occur. Another example of collocation is depicted in line 5, 6 and 10-11, in **tilwane tasepulazini** (*farm animals*), in **lokunemaseko lamatsatfu** (*a well-balanced*) and in **kugayeka nekusebenta** (*digestion and absorption*).

Another cohesive device is the use of two subordinating types of conjunctions of purpose, in line 2, **kute** (*so that*) and line 13 **kutsi** (*to*), and a coordinating conjunction of addition **kanye** (*and*) in line 3, joining clauses. A further way in which texture is achieved in the segment is through the use of substitution, realised in the use of reference already discussed. This is called nominal substitution. The nominal substitution is also illustrated in the use of a reduplicated copulative demonstrative, in line 11, **nguleso naleso silwane** (*each and every animal*) instead of naming all kinds of animals.

Collocation is signalled by the post-modified noun phrase, in line 59 **litfumbu lelincane** (*the small intestine*). These two items have a tendency to co-occur. Another example of collocation is displayed in line 88 in the noun phrase **litfumbu lelikhulu** (*the large intestine*). Consider, next, the following segment in lines 49-58, repeated here, in terms of the textual metafunction displayed by the siSwati language system.

The segment in lines 49-58, displays a variety of cohesive devices, for example, anaphoric reference is illustrated in the use of the subject concord **sa-** (*it*), representing the noun phrase **sisu** (*stomach*). In line 50, the subject concord AgrS **si-** (*it*), also, represents the pronoun of the class 7 noun **sisu** (*stomach*) mentioned above. In line 51, the subject concord **ti-** (*are*), points back to the noun phrase **tindvonga** (*walls*). In line 52, the relative concord in the relative predicate **lakhicita** (*that produce*) refers back to the noun in the possessive phrase **lemadlala** (*of glands*). In line 57, the subject concord in the verb phrase **akhulule** (*to release*), points back to the pronoun of the noun in the copulative noun **ngemamasela** (*muscles*). In line 58, the infinitive prefix in the infinitive verb **kungene** (*to release*), points backwards to the compound nouns **kudla** (*food*) and **nejusi** (*and juice*). All these references are grouped under anaphoric reference, as they point backwards to given information.

Further examples of anaphoric reference are realised in instances of demonstrative and comparative references. In line 52, a sentential demonstrative pronoun occurs with **loku kukuketse** (*this contains*) which refers back to the previous sentence. In line 53, cataphoric reference is displayed in the demonstrative pronoun first position in the demonstrative noun phrase **lokudla** (*this food*), pointing forward to the pronoun of the class 15 noun **kudla** (*food*). In line 49, comparative cohesion is indicated by **sisu sakheke njenge sitselo liphe** (*the stomach is pear-shaped*). The noun phrase **sisu** (*stomach*) is compared to the noun phrase **liphe** (*a pear*).

With regards to lexical cohesion, this segment exhibits forms of lexical cohesion, such as reiteration, occurring in line 55, with the noun **sisu** (*stomach*) in the possessive phrase **Iwesisu** (*of stomach*) and in line 50 in **sisu sengulube** (*the stomach of the pig*). In lines 53, the noun phrase **kudla** (*food*) is also repeated in **lokudla** (*the food*) with a definite article that indicates given information. In some cases, the noun phrase is repeated and realised in an AgrS or an AgrO and the reader will know which noun is referred to.

In lines 56, synonymy is realised in the noun phrases **intikintiki** (*pulp*)/ **sidvudvu** (*mash*) that have related meanings. Further, the two noun phrases exemplify homophoric reference because their meanings can be retrieved by reference to cultural knowledge, rather than the specific context of the text. So, a siSwati speaker will definitely know what these two noun phrases mean. Antonymy is displayed in the joined infinitive nominals **kuvaleka nekuvuleka** (*the closing and opening*) in line 54.

Another way in which language contributes to the texture of a text is through conjunctive cohesion. The segment contains two additive conjunctions **ne** (*and*), **ne** (*with*), **noma** (*or*) and a comparative conjunction **njenge** (*like*). These conjunctions combine phrases and clauses, for example, the conjunction **ne-** (*and*) combines two noun phrases **kudla ne jusi** (*food and juice*). The associate conjunction **ne** in **kunetintfo letingagucuki** (*enzymes*) associates what has been mentioned in the previous clause and the enzymes. The conjunction **noma** (*or*) combines the noun phrase **intikintiki** (*pulp*) and the additional alternative noun phrase **sidvudvu** (*mash*). The conjunction of comparison **njenge** combines two noun phrases **sisu sakheke** (*the stomach is shaped*) and the noun phrase **liphe** (*a pear*).

In this segment, substitution and given information are exemplified through reference. Consider another segment in lines 59-71, demonstrating cohesive devices.

With regards to the textual metafunction the segment in lines 59-71, demonstrates various means by which cohesion operates, including reference, substitution, and lexical relations of repetition, inclusion, synonymy/antonymy and collocation.

The segment illustrates the use of anaphoric reference through pronominal cohesion in line 59, in the use of the subject concords **li-** (*it*), referring back to **litfumbu lelincane** (*the small intestine*), in line 65, the concord **a-** (*they*), points back and represents the noun phrase **emadlala** (*glands*). In line 70, the subject concord AgrS **si-** (*it*), refers back to the noun phrase **silungiselelo** (*the lining*). In lines 63 and 64, cataphoric reference is realised in the use

of the specifying pronoun **lokunye** (*some*), pointing forward to the nominal infinitive **kugayeka** (*digestion*). In line 59, comparative reference is illustrated in the clause **litfumbu lelincane liphayiphi lelidze, lelincama** (*the small intestine is a long, thin tube*).

In relation to lexical cohesion, the segment in lines 59-71 displays repetition of the noun phrase **litfumbu lelincane** (*the small intestine*) in lines 64, in the possessive phrases **lwelitfumbu lelincane** (*of the small intestine*) and in line 60 in **selitfumbu lelincane** (*of the small intestine*). In lines 64-66, synonymy is displayed in the mentioning of **emadlala laselubondzeni lwelitfumbu lelincane** (*glands in the wall of the small intestine*) with the noun phrase **iliyeberukuhini** (*lieberkuhn*) and **ijusi yekugaya** (*digestive juice*) /**sakhasi enterikusi** (*succus entericus*). These two examples also demonstrate homophonic reference in that the English terms will require a reader to refer to specific contextual knowledge, rather than the cultural knowledge of the text. Therefore, learners require both cultural and specific contextual knowledge. Meronymy is realised in lines 60- 62, where the whole (superordinate) item is **litfumbu lelincane** which is divided into three parts **sitfo sekucala selitfumbu lelincane** (*duodenum*), **yincenye yelitfumbu lelincane lesemkhatsini wesitfo sekucala** (*jejunum*) and **nencenye yesitsatfu legcinako** (*ileum*).

Another form of lexical cohesion in this segment is collocation, displayed in lines 59 and 66, in the noun phrase **litfumbu lelincane** (*the small intestine*) and in expectancy relations, i.e. **tintfo letakha umtimba** (*body building substances*). Conjunctive cohesion involves the coordinating additive conjunctions **na-** (*and*) in the relative phrase **nalokuniketa** (*and that can be absorbed*), in line 67. In line 67, the subordinating conjunction of purpose **kuze** (*so that*), combines an indicative clause **kuyacobeka** (*they are broken*) with an infinitive verb phrase **kungene** (*to be absorbed*).

Substitution is realised through pronominal cohesion and in **liphayiphi lelidze** (*a long tube*), replacing the noun phrase **litfumbu lelincane**.

Consider, as a further example, of the textual metafunction, the segment in lines 85-99 of text 4.1.

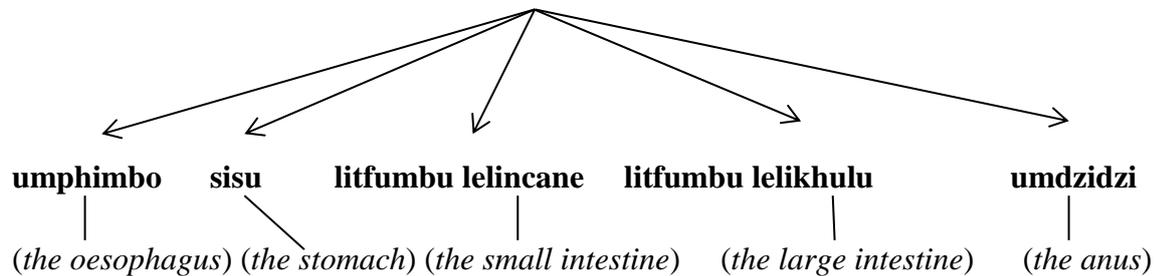
With regards to the textual metafunction, the segment in lines 85-99 displays various patterns of cohesive devices. Reference is one of the frequently used cohesive devices. In line 85, the evidence of anaphoric reference occurs frequently, where the relative concord in the relative clause **lokungakagayeki** (*that is not digested*), refers back to the noun phrase **kudla** (*food*)

that has already been mentioned. In line 87, the infinitive prefix in the infinitive verb phrase **kuyengca** (*it passes*), points to the noun phrase **kudla** and its modifiers **lokungakagayeki** and **lokungakamunyeki** (*that is not absorbed*). In line 93, the demonstrative pronoun first position **loku** (*this*), points backwards to the previous clause. In line 87, the pronominal AgrS subject concord **a-** (*they*) represents the noun phrase **emadlala emafinyela** (*mucous glands*). Similarly, the subject concord **a-** represents the noun phrase **lamanye emagciwane** (*some bacteria*) realising substitution.

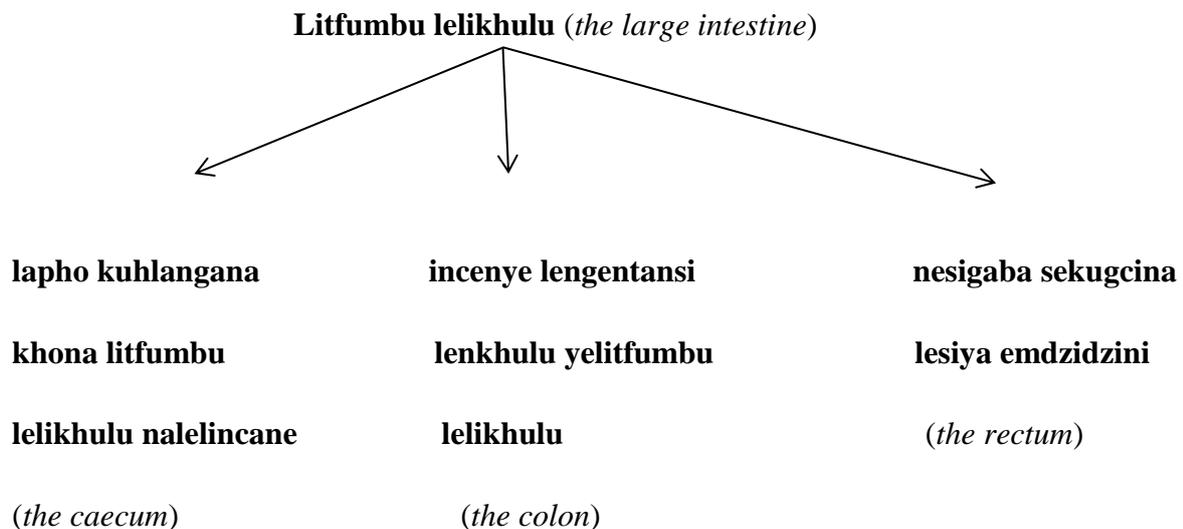
In line 87, cataphoric reference is exemplified where the emphatic pronoun **wona** (*themselves*), points forward to the noun phrase **emafinyela** (*mucous*). Further, in line 97, homophoric reference is realised in the noun in the locative noun phrase **lamangcoliso** (*the faeces*). The noun in this locative noun phrase is culturally derived and used as a gesture of respect in public speeches. In line 88, comparative reference is depicted in the clause **litfumbu lelikhulu lishubhu lelikhulu** (*the large intestine is a large tube*). The emphatic pronoun **wona** (*themselves*) exemplifies a bridging reference where an item refers to something that has to be inferentially derived from the text or situation, which here is the noun **emafinyela** (*mucous*).

In terms of lexical choices for communication purpose, the segment displays the use of repetition which refers to words repeated in the segment. The noun phrase **litfumbu lelikhulu** (*the large intestine*) is mentioned several times, as in lines 91, 92, 94 and 95-96, in the possessive phrases **yelitfumbu lelikhulu** (*of the large intestine*), **welitfumbu lelikhulu** (*of the large intestine*), **telitfumbu lelikhulu** (*of the large intestine*) and in the compound possessive phrase **welitfumbu lelincane nalelikhulu** (*of the small and large intestine*). The noun phrase **kudla** (*food*) is repeated in the segment in a possessive phrase **yekudla** (*of food*) in line 88. These phrases are repeated due to the fact that they are the main paragraph themes.

In lines 85 and 93, synonymy is realised in the use of the locative relative phrase **kulokuyidodi** (*from the wastes*) and the relative predicate **lokungakagayeki** (*that is not digested*) which have similar meanings. The infinitive verb phrase in the indicative mood **kuyacina** (*it becomes solid*) in line 96 and the relative phrase **lamantana** (*that are semi-solid*) in line 97, are words of opposite meaning and, hence, demonstrate the use of antonymy. In line 25-26, the text illustrates the use of hyponymy, where the relationship between classes of lexical items is one of a 'general-specific' type as in the classification of the alimentary canal in five parts. The parts are illustrated in the following diagram:

Litfumbu lelivamile lekudla letilwane (*the alimentary canal for most animals*)

In addition, meronymy is also illustrated in lines 88-91 where the whole is represented by the noun phrase **litfumbu lelikhulu** (*the large intestine*) with three parts **lapho kuhlanguana khona litfumbu lelikhulu nalelincane** (*the caecum*), **incenye lengentansi lenkhulu yelitfumbu lelikhulu** (*the colon*) and **nesigaba sekugcina lesiya emdzidzini** (*the rectum*). These relationships could be represented diagrammatically as follows:



Collocation is another form of cohesion illustrated in this segment, in the noun phrases **litfumbu lelikhulu** (*the large intestine*) and **litfumbu lelincane** (*the small intestine*). Another form of cohesion displayed in the segment is the use of an additive conjunction **na-** (*and*) in line 98, combining two noun phrases **litfumbu lelikhulu nalelincane** (*the big and small intestine*), **bese** (*and then*), in a concession of actions **kumunya emanti kulokuyidodi bese abuyela emuva emtimbeni** (*it absorbs water from the wastes and return this water to the*

body). A further form of lexical cohesion is substitution, realised mostly in different types of references already discussed.

Forms of cohesion displayed in a compositional report, in the siSwati language system have been analysed. Grammatical cohesion exemplified forms of anaphoric reference frequently realised in pronominal reference, comparative reference, and relative concords. Commonly used conjunctions are coordinating conjunction of addition, comparative and subordinating conjunctions of purpose. Lexical cohesion forms are reiteration of noun phrases, synonymy, antonymy, hyponymy and collocation. In the next section, the analysis will be concerned with information structure.

Information structure: Theme-rheme

This section is concerned with the exploration of how information is structured in a compositional report in the siSwati language system. In addition, for the purposes of the genre-theoretic analysis, there will be examination of some linguistic properties used in the arrangement of information in texts. These are theme-rheme relations, given and new relations, topic comment relations and focus-presupposition. In the following paragraphs, examples are given of theme-rheme relations displayed in a compositional report. Recall that theme refers to the first mentioned phrase in a clause, which forms a point of departure of the writer while rheme represents the move away from the speakers' starting point.

In chapter two, it was stated that some themes are marked while others are unmarked. Marked themes are those that begin with the subject of the clause and yet unmarked themes commence in a different way, e.g. prepositional phrases. Recall that in compositional reports, the topic or sub-topic appears in theme position. In this case, the reader is well oriented towards the topic. Themes will be marked in bold in both the siSwati and English version and then analysed. Consider first, the analysis on theme-rheme of the segment in lines 1-15 repeated here.

Theme	Rheme
Kugayeka (<i>Digestion</i>)	Kucala emlonyeni (<i>starts in the mouth</i>).
Kudla (<i>Food</i>)	Kuyacobeka kube timvushwana (<i>is broken down into small pieces</i>).
Loku (<i>This</i>)	Kufaka ekhatsi emakhemikhali latsite (<i>is mechanical digestion</i>).
Kuhlafuna (<i>Chewing</i>)	Kusita ekuhlanganiseni kudla nematse (<i>helps to mix the food with saliva</i>).
Emadlala ematse (<i>Salivary glands</i>)	Akhicita ematse angene emlonyeni (<i>secrete saliva into the mouth</i>).

In the above segment from lines 33-39, the sentences display different ways of theme departure, though in some cases the same theme is maintained. Themes in taxonomic reports indicate the point of departure which here is **kugayeka** (*digestion*) and the rest of the clause is the rheme which gives new information. The next clause continues with the same pattern with **kudla** (*food*) as the theme. The following clause shifts the theme pattern to **Loku-** (*this*) a demonstrative pronoun pointing back to information in the previous rheme. The next clause shifts the topic back to **Kuhlafuna** (*chewing*) which has been introduced in the second clause. The following clause maintains the first pattern with **emadlala** (*salivary glands*) as the theme. The next theme picks up on **ematse** (*saliva*) which has been mentioned in the previous rheme. In the next clause, the theme is a pronoun *ku-* (*it*) which refers back to information in the previous rheme. The last theme of the paragraph picks from **ematse** (*saliva*) which has been mentioned earlier on. If we track the various patterns of thematic development, we shall find that they introduce a topic, refer back using a pronoun and pick up from already introduced information or shift the topic in different ways. This is called thematic progression. Topic sentence themes are referred to as unmarked themes. Themes also indicate topic continuity and topic comment.

Marked themes may begin with a propositional phrase, in line 24 **Etilwaneni letinyenti litfumbu lekudla...** (*In most animals, the alimentary canal...*) or a dependant clause, in lines 102-103 **Ngesikhatsi liphumula lelimasela, emangcoliso...** (*When this muscle relaxes, waste matter...*)

In compositional reports, most themes are unmarked, with few instances of marked themes. The unmarked themes are the noun phrases used at the beginning of a sentence. The themes

indicate topic continuity and often represent topic comment. The rheme displays new information.

The following section analyses the interpersonal resources beyond the clause.

4.2.1.2.3 Interpersonal metafunction

The interpersonal metafunction concerns resources for creating patterns of evaluation and engagement with audience. The concept of appraisal is also discussed by White (2009:1-20) However, the compositional report does not exhibit language of evaluation. The text used the third person.

In summary, the compositional text in 4.1 has demonstrate the appropriate ideational resources, textual resources and is attitudinally neutral though used the third person approach. The following section presents an analysis of classifying reports, commencing with a model text of a classifying report.

4.2.2 Classifying report: Titfo tangasese (*The reproductive organs*)

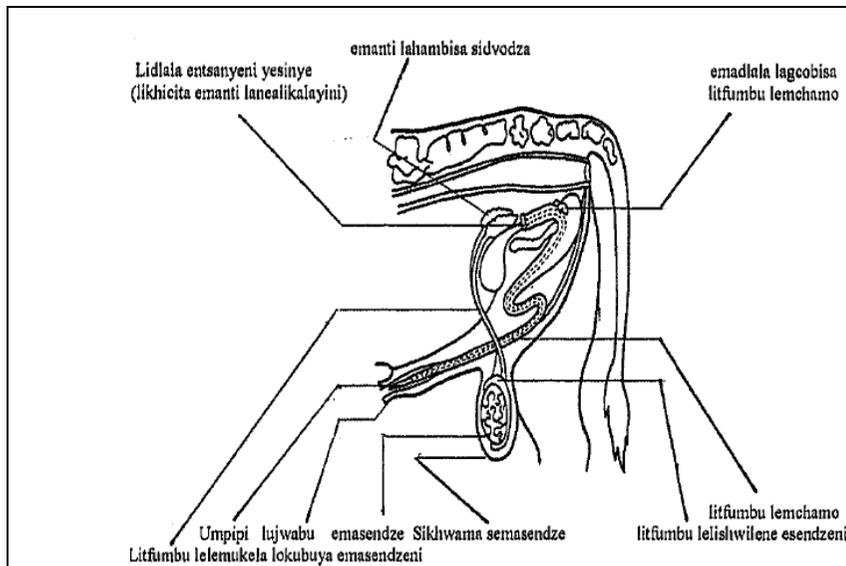
Consider, next, a model text of a classifying report.

Text 4.2

<p>1] Kuyintfo lebaluleke kakhulu kucondzisisa emandla entalo etilwane tekufuywa kutsi kube lula kukhetsa leto letitalana kakhulu. Emasendze (bunye: lisendze) ngutona titfo letimcokwa etilwaneni letindvuna. Tikhicita sidvodza. Emasendze aphindze akhicite emadlala alabadvuna 5] lekutsiwa yi tesitositeroni. Kuletinsikati, tibilini ngusona sitfo lesimcoka. Tikhicita emaseli ebesifazane noma emacandza. Letibilini tona tiphindze tikhicite emahomoni ebesifazane; I ositorojini ne porojesitoroni. Ngesikhatsi sekuhlangana noma kulalana, licandza lihlangana nesidvodza kube kunye bese kwakheka licandza lelivundzile. 10] Lelicandza lelivundzile liyehlukana ngetigaba letinyenti kute kwakheke emasotja lanesimo sebhola labese aba ngumbungu.</p>	<p>It is important to understand the reproductive capacity of farm animals in order to select animals that can reproduce at optimum levels. The testes (singular: testis) are the primary male sex organs. They produce the male gametes or sperm. The testes also produce the male hormones, testosterone. The ovaries are the primary female sex organs. They produce female gametes or ova (eggs). The ovaries also produce the female hormones, oestrogen and progesterone. In sexual reproduction, the egg and sperm are brought together during mating or copulation. The egg and sperm fuse and a fertilised egg is formed. The fertilised egg will divide many times to form a ball of cells that will become the embryo.</p>
<p>1.1 Luhlelo lwetitfo tangasense letindvuna</p> <p>Luhlelo lwetitfo tekulalana talabadvuna tifaka ekhatsi emasendze, umpipi, emadlala nembhobho wesidvodza. Umdvwebo 3.1 utjengisa sakhiwo nekusebenta kweluhlelo lwetitfo tekulalana tenkunzi (silwane 15] lesidvuna). Emasotja lasesidvodzeni asuka emasendzeni aye embhobheni losemvakwemasendze, litfumbu lelishwilene leliseceleni</p>	<p>1.1 The male reproductive system</p> <p>The male reproductive system consists of the testes, the penis, male glands and the vas deferens. Figure 3.1 shows the structure and function of the reproductive system of a bull. Sperm cells move from the testes to the epididymis, a coiled tube lying outside each testis. Sperm are stored here until they reach maturity. The epididymis</p>

kwalelo nalelo lisendze. Sidvodza sigcineka lapha size sivutfwe. Umbhobho losemvakwemasendze ucitsela **embhobheni wesidvodza**. Lelitfumbu leli letfwala sidvodza lisiyise esinyeni, litfumbu 20] lekwendlulisa umchamo. Litfumbu lemchamo likhipha sidvodza nalokusamanti (semen) ngempipi. Lamadlala akhipha lokusamanti lokuvundzisa sidvodza. Litfumbu lemchamo liphindze likhiphele ngephandle umchamo losuka esinyeni. Umchamo nenhlanyelo yentalo akwengci ngesikhatsi sinye etfunjini lemchamo. Umtoto ngusona sitfo Sinye - sikhicita sitaputapu lesiniketa sidvodza emandla

empties into the **vas deferens**. This tube carries the sperm to the urethra. A number of glands join the urethra. The glands secrete fluids that nourish the sperm. The urethra is a tube that carries the sperm and fluids (semen) out of the body through the penis. The urethra also carries urine out of the body from the bladder. Urine and semen never pass along the urethra at the same time. The penis is the organ of copulation.



Sakhiwo 4.3 Luhlelo lwetitfo tangasense taletindvuna

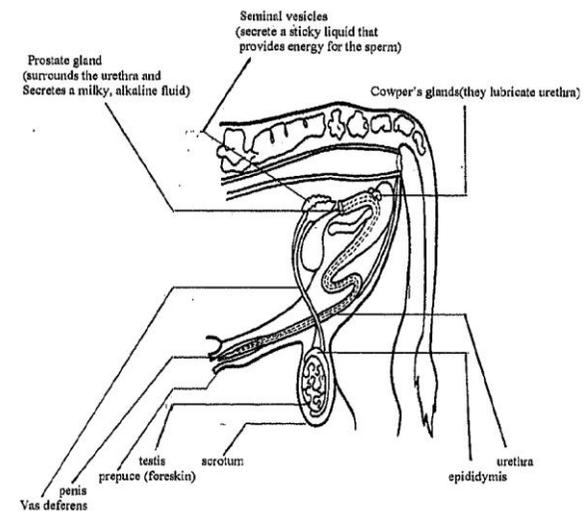
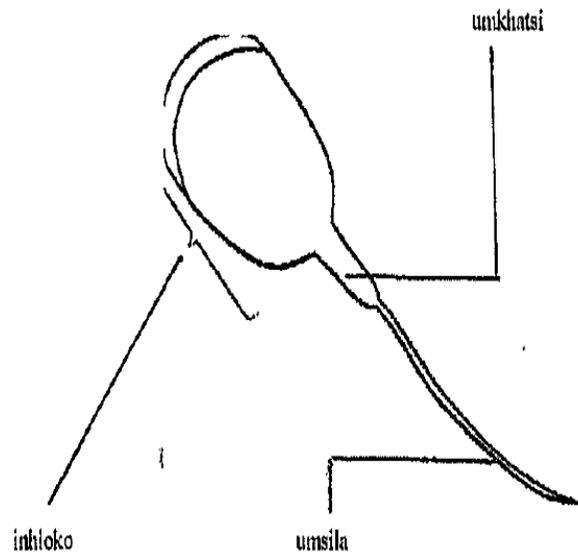


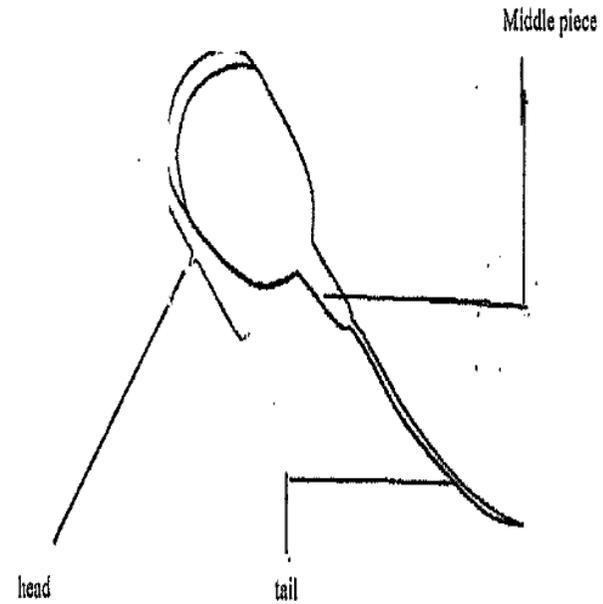
Figure 4.3 The male reproductive system

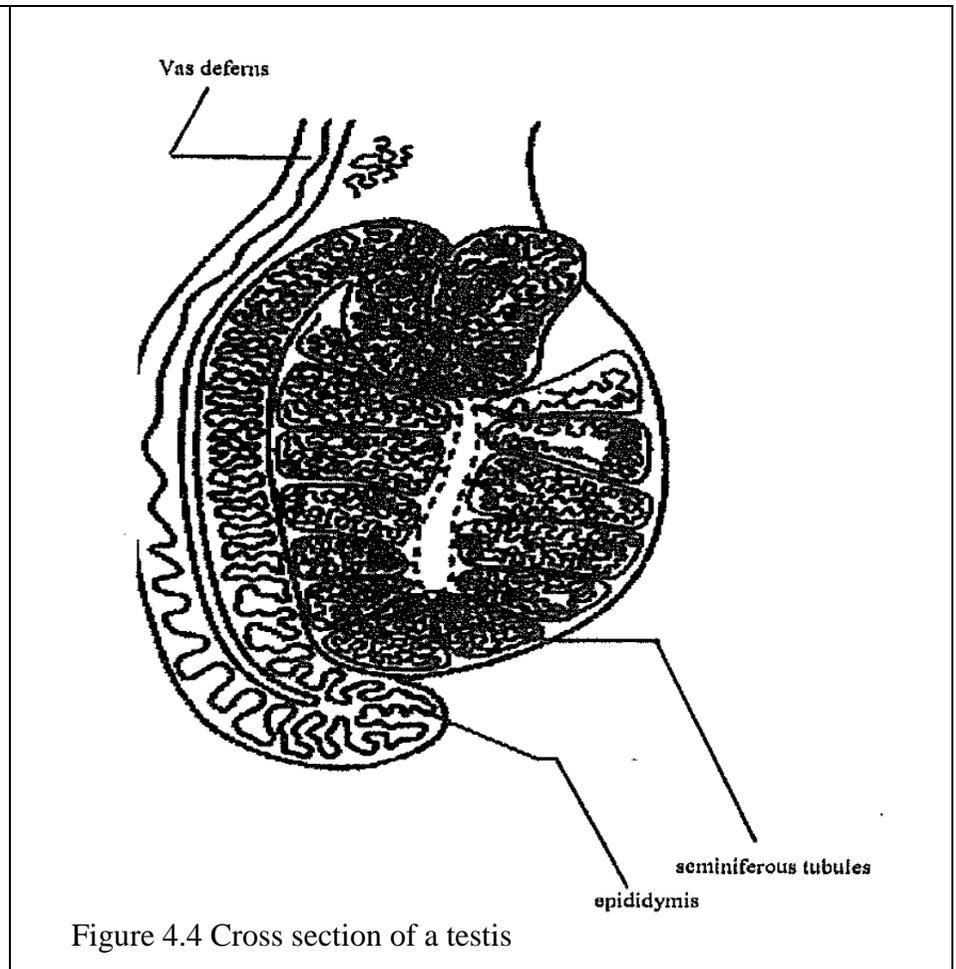
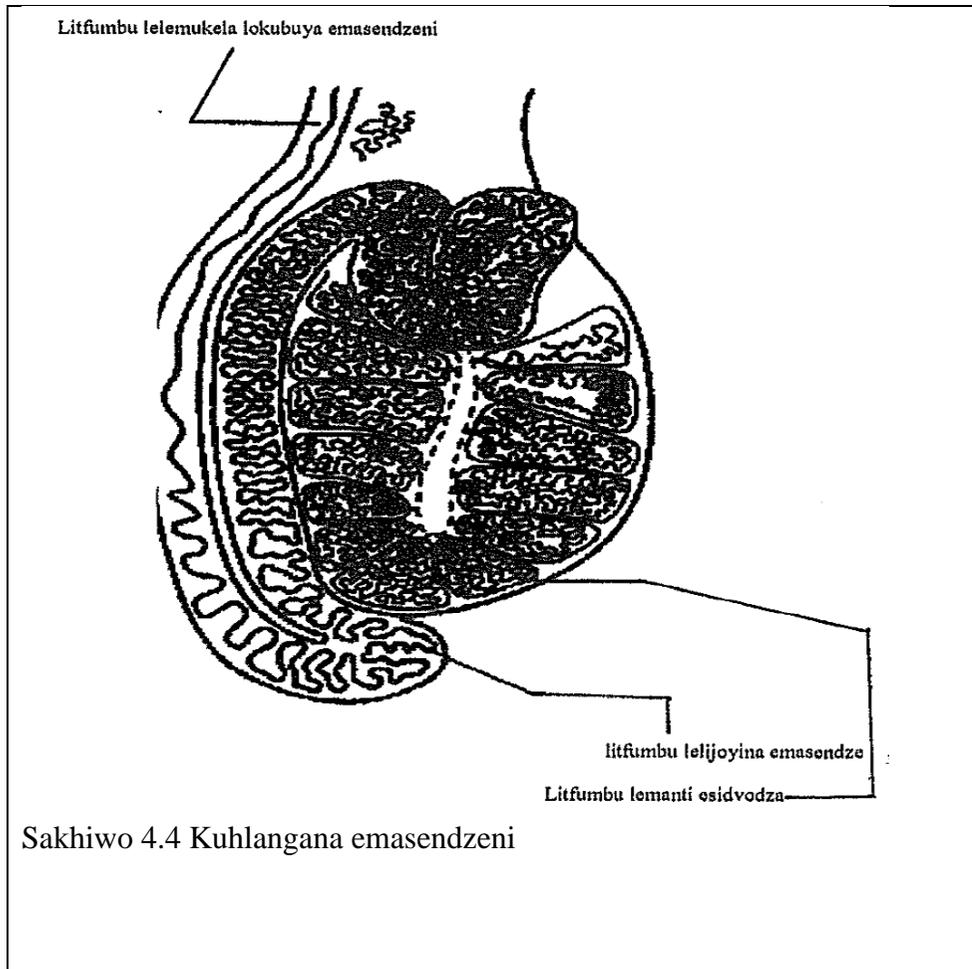
<p>Emasendze nempipi/umtoto</p> <p>25] Emasendze alengela ngaphandle kwentimba asesakeni lelibitwa ngekutsi sikhwama semasendze. Loku kwenta kutsi lamasendze afutfumale kepha aphindze abandze kancane. Loku kulungela simo sekwakheka kwesidvodza. Emasendze acala kwakha sidvodza nakufika kutfomba (sikhatsi sebudzala). Kutfomba kucala emkhatsini</p> <p>30] wetinyanga letisiphohlongo na letilishumi nesiphohlongo, kuya ngekutsi inkunzi iluhlobo luni. Ngesikhatsi sekuhlangana, lompi kumele wome noma ucine kute utongena kahle emसानeni. Loku kwenteka ngesikhatsi imisipha lesemkhatsini wemtoto ugcwala ingati. Ngesikhatsi sekutfundza sendlalelo semamasela embhobho</p> <p>35] wesidvodza nelitfumbu lemchamo kuyahlangana kufuce lesidvodza siphume etfunjini lemchamo. Lesidvodza sitfundzeleka ekhatsi emसानeni</p>	<p>Testes and penis</p> <p>The testes are held outside the body in a bag of skin called the scrotum. This keeps the testes at a temperature slightly lower than body temperature, which provides the optimum conditions for sperm production. The testes start to produce sperm at the beginning of puberty. Puberty starts at between eight and eighteen months, depending on the breed of the bull. During mating, the penis must be erect so that it can enter the vagina. This happens when the spongy erectile tissue in the semi-solid penis fills with blood. During ejaculation, muscles lining the vas deferens and the urethra contract, forcing the sperm out of the urethra. The semen is ejaculated into the female vagina.</p>
<p>Sidvodza</p> <p>Umtimba wesidvodza unetincenye letintsatfu: inhloko, umkhatsi kanye nemsila (buka Sakhiwo 3.2). Lenhloko icuketse tintfo telufuto letikhipha ticalalo letivumela kutsi sidvodza sibhoboze sembatfo se seli</p> <p>40] yelicandza ngesikhatsi sekuvundza. Lencenye lesemkhatsini yetfwele sitfo sekuphefumula nalesiletsa emandla ekunyakata. Umsila uchubela sidvodza embili. Sidvodza sakhiwa tigungu letehlukene</p>	<p>Sperm</p> <p>Sperm cells consist of three parts: the head, the middle piece and the tail (see Figure 3.2). The head contains the genetic material and produces enzymes that allow the sperm to penetrate the covering of the egg cell during fertilisation. The middle piece contains mitochondria that produce energy for movement. The tail propels the sperm forward. Sperm are produced by a series of divisions of cells found lining the walls of the seminiferous tubules in the testes</p>

temaseli latfolakala etibondzeni tematfumbu lanenhlanyelo emasendzeni (buka Sakhiwo 4.3).



(see Figure 4.3).





Inhlanyelo yentalo
 Ngesikhatsi anyakata emaseli esidvodza embhobheni wesidvodza asuke abhicene nalokumanti lokuphuma esinyeni lesincane sesidvodza, 45] edlaleni lelitungeletele intsamo yesinye nemadlala. **Inhlanyelo**

Semen
 As sperm cells move along the vas deferens, they are mixed with fluids from the seminal vesicles, the prostate gland and Cowper’s glands. **Semen** is a mixture of sperm and these fluids. It is a sticky, cream-

<p>yentalo sibhicongo sesidvodza nalokumanti. Yona isitaputapu lesilulata lesikhutsata kunyakata kwesidvodza. Lesinye lesincane sesidvodza sikhicita lokumanti lokungukona kunotsisa sidvodza. Etinkunzini, kutfundza kanye kukhipha inhlanyelo yentalo lesemkhatsini 50] wemamililitha lamabili nalalishumi. Imililitha yinye icuketse sidvodza lesinyenti lesingaba ngemamiliyoni langemakhulu lamabili.</p>	<p>coloured liquid that stimulates movement for the sperm. The seminal vesicles secrete fluids that are the main nutritional source of sperm. In bulls, each ejaculation releases between 2 ml and 10 ml of semen. Each millilitre contains as many as 2000 sperm.</p>
<p>1.2 Luhlelo lwetitfo tangasense tebesifazane</p> <p>Luhlelo lwetitfo tebesifazane (Sakhiwo3.4) lwakhiwe ngetibilini temacandza lamabili, sibeletfo litfumbu lekwengcisa licandza. Eceleni kwaleso naleso sibilini selicandza kunelitfumbu lelincama 55] (Sakhiwo3.5) lelingumnyango welitfumbu wekwengcisa licandza, ubutsa emacandza laphuma etibilini. Luhlangotsi lwangetulu lwelitfumbu lekwengcisa emacandza lubitwa ngekutsi yi ampula. Kuvundza kwenteka lapha. Ematfumbu ekwengcisa emacandza ngematfumbu lanemitsambo leyomile lambatsiswe tinwele letincane (tiboya) siliya. 60] Lelicandza lihanjiswa kuvaleka nekuvuleka kwemamasela laselubondzeni. Lamatfumbu ekwengcisa emacandza avulekela esibeletfweni, lekusitfo lesilimasela lelinemkhatsi lovulekile, lesinemtimba netimpondvo letimbili (buka Sakhiwo 3.5). Sibeletfo sinotsisa siphindze sivikele umbungu lokhulako. Lubondza lwesibeletfo lwakhiwe ngemamasela labusheleleti laphindze abitwe ngekutsi yi</p>	<p>1.2.The female reproductive system</p> <p>The female reproductive system (Figure 3.4) consists of a pair of ovaries, the uterus and the Fallopian tubes. Close to each ovary lies the infundibulum (Figure 3.5), which is the opening of the Fallopian tube. It collects the eggs released from the ovary. The top part of the Fallopian tube is called the ampulla. Fertilisation normally occurs here. The Fallopian tubes are muscular tubes lined with tiny hairs called cilia. The tubes open into the uterus, which is a hollow muscular organ consisting of a body and two horns (see Figure 3.5). The uterus provides nutrition of smooth muscle and is called the myometrium. The lining of the uterus is called the endometrium. It is well supplied with blood.</p> <p>The cervix connects the uterus with the vagina. The vagina receives the penis during mating and becomes the birth canal for the new-born.</p>

<p>65] miyometiriyamu. Sivikelo sesibeletfo sibitwa ngekutsi yi endometiriyamu. Iniketwa ingati leyanele. Umlomo wesibeletfo uhlanguana nemsasane. Umsasane wemukela umpipi ngesikhatsi</p> <p>68] sekuhlangana (kulalana) futsi uba yindlela yekutalwa kwemntfwana losesiswini.</p>	
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4.2.2.1 The generic structure of a classifying report

The generic structure of a classifying report is similar to that of a compositional report. The above text resembles the structure of a classifying report which aims at classifying **titfo tangasense** (*the reproductive organs*) and describe parts of **luhlelo lwetitfo tangasense letindvuna** (*the male reproductive system*) and **luhlelo lwetitfo tangasense taletinsikati** (*the female reproductive system*). The schematic structure of a classifying report has been discussed in the previous chapter with reference to two stages: the classification and the description stage. The classifying stage is analysed below,

The classification stage

The classification stage displays three phases. The first phase is illustrated in lines 1-10 of the above classifying report, introducing a general statement which names the general class being described, **titfo tangasense** (*the reproductive organs*), identifies the parts to be described in the report, and introduces technical terms which in this case are **emasendze** (*testes*), **sidvodza** (*sperm*), **tesitisiteroni** (*testosterone*), **tibilini** (*ovaries*) and the term in the possessive phrase **sekuhlangana** (*copulation*).

The second classification phase is illustrated in lines 12-14 where the male reproductive system is classified into parts **emasendze nemtoto** (*testes and penis*), **sidvodza** (*sperm*) and **inhlanyelo yentalo** (*semen*). The third classification phase is demonstrated in lines 52-54, in relation to parts of the female reproductive system **tibilini temacandza lamabili**, (*a pair of ovaries*), **sibeletfo** (*the uterus*) and **litfumbu lekwengcisa licandza** (*the fallopian tube*).

In agricultural sciences, the classification also identifies functions of features as demonstrated in lines 4-8 in that functions of testes and ovaries are given, such as the production of sperm and ova. The classification stage of the classification report establishes a phenomenon, predicts parts, introduces technical terms and sometimes includes a definition.

In the classification stage, other genre segments are illustrated, i.e. a genre segment of explanation, in lines 5-10, is about the functions of female gametes and the process of copulation. Description is also exemplified in line 9 **lelicandza lelivundzile** (*a fertilized egg*).

The following is a description stage of the classifying report.

The description stage

Similar to the classification stage, the description stage is demonstrated in more than one instance. In this report, the writer decided to describe parts of each system, according to the most general to the most specific and detailed. Hence, in lines 15-50, the description moves from the male reproductive system in general and then to the most specific which involves **emasendze nempipi** (*testes and penis*) to **sidvodza** (*sperm*) and **inhlanyelo yentalo** (*semen*). The second phase is illustrated in lines 52-68, where the most general part is the female reproductive system which introduces the most specific and detailed parts, namely, **tibilini temacandza lamabili**, (*a pair of ovaries*), **sibeletfo** (*the uterus*) and **litfumbu lekwengcisa licandza** (*the fallopian tube*). The writer of the text did not order the most detailed parts of the female reproductive system into sections. The detailed information in this case is about the constituents of features, location, functions and their descriptions which give factual information.

In this stage, different genres are employed to organize the information. For example, a description segment is displayed in lines 15-17 and 20-35, containing a genre segment of explanation, concerning the functions of epididymis, location of sperms and functions of the vas deferens, glands, the urethra and the penis. Other description segments are evident in lines 15-17 where the epididymis is being described, 31-33 in relation to the condition of the penis during mating and its tissues, 36-39, referring to the content of the three parts of the sperm, 37-38, relating to parts of a sperm which is the second feature and 53-59, concerning the location of the infundulum, ampulla, fertilization, the fallopian tubes, endometrium and the location of the cervix.

In addition, segments of explanation are found in lines 33-34, showing ejaculation time and in lines 66-67, relating to the functions of the vagina. In lines 37-38, a genre segment of classification is displayed, relating to parts of a sperm which is the second feature. Line 41 represents a sequential explanation, relating to sperm cells.

The classifying report displays two stages: classification and description. This genre can encompass genres of classification, description and explanation. In the following paragraph, the language components used in classifying reports are discussed.

4.2.2.1.1 Language components in classifying reports

As classifying reports are categorised under descriptive genres, the typical language components are the same as those for compositional reports. Recall that reports tell us about the way a phenomenon is all the time, using the present tense. Thus, the classifying report displays the use of the present

tense and the subjunctive mood, in line 4 **Emasendze aphindze akhicite emadlala alabadvuna...** (*The testes also produce the male hormones*).

Relational verbs are used when classifying and describing appearance/qualities and parts/functions of a phenomena, which are realised in subject concords and copulative prefixes such as in line 20 **Litfumbu lemchamo liphayiphi lelikhipha sidvodza nalokusamanti...** (*The urethra is a tube that secretes fluid...*), line 46 **Yona isitaputapu lesilulata...** (*It is a sticky, cream-coloured*)..., line 66-67 **Umlomo wesibeletfo uhlangana nemasane** (*the cervix connects the uterus with the vagina*); and line 28 **Emasendze alengela ngaphandle...** (*The testes are held outside...*). The copulative prefix is exemplified in lines 23- 24 **Umtoto ngusona sitfo sekulalana** (*The penis is the organ of copulation*).

Action verbs are used when describing types of behaviour/use, for example, in lines 33-36 **Ngesikhatsi sekutfundza, sendlalelo semamasela embhobho wesidvodza nelitfumbu lemchamo kuyahlangana kufuce lesidvodza siphume etfunjini lemchamo. Lesidvodza sitfundzeleka ekhatsi emsasaneni** (*during ejaculation, muscles lining the vas deferens and the urethra contract, forcing the sperm out of the urethra*). And lines 66—67 **Umsasane wemukela umtoto ngesikhatsi sekuhlangana** (*The vagina receives the penis during mating...*). In literary and common sense descriptions, action verbs are used metaphorically to create effect and this is illustrated in the two examples on behaviours and uses.

Further, adjectives are used to add extra information to nouns and may be technical (adjectives related to science), every day (normal adjectives) or literary (adjectives relating to the study of literature), depending on the text, for example, in lines 45-46 **Inhlanyelo yentalo sibhicongo...** (*Semen is a mixture...*)- technical; in lines 46 **Yona isitaputapu lesilulata...** (*It is a sticky, cream-coloured liquid...*)- every day; and in line 47 **Lesinye lesincane...** (*The seminal vesicles...*).

Adverbs and adverbial phrases are used in descriptions to add extra information to verbs or about manner, place and time, as in line 26 **Loku kwenta kutsi lamasendze atutfumale kepha aphindze abandze kancane.** (*This keeps the testes at a slightly lower than body temperature.*), in line 25 **Emasendze alengela ngaphandle kwentimba, asesakeni lesikhumba...** (*The testes are held outside the body in a bad of skin...*) and in lines 31 **Ngesikhatsi sekuhlangana, lomtoto kumele wome...** (*During mating, the penis must be erect...*)

Moreover, literary description uses a range of devices to create effects such as similes and personification, for example in line 19 **Litfumbu lemchamo liphayiphi...** (*The urethra is a*

tube...), in lines 66-67 **Umsasane wemukela umpipi...** (*The vagina receives the penis...*) and in line 65 **Sivikelo sesibeletfo sibitwa ngekutsi...** (*The lining of the uterus is called...*).

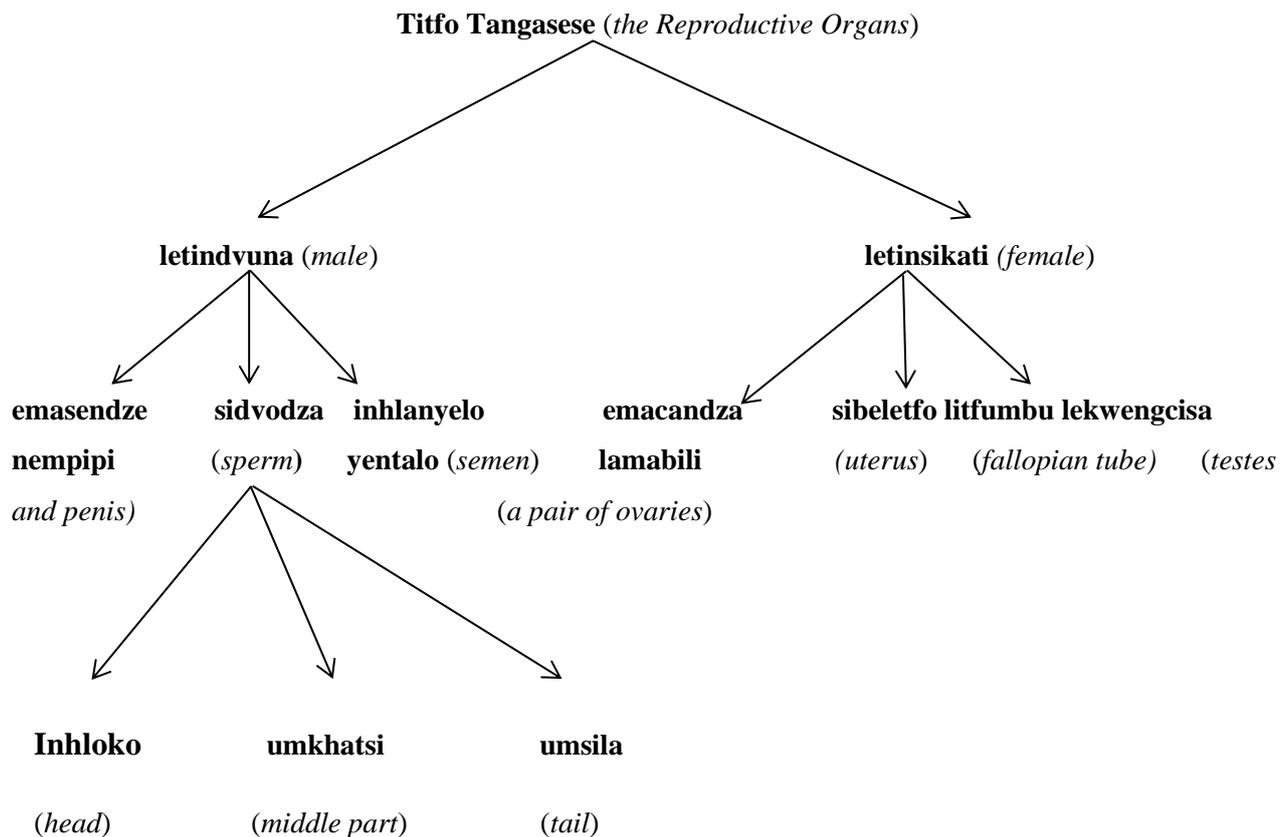
The classification report in 4.2 has manifested a variety of language components that characterise reports in general. These are present tense, relational verbs, action verbs, action verbs used metaphorically, adjectives, adverbs, adverbial phrases, similes, personification and alliteration. In the next paragraph, consider how information is organised in classifying reports.

4.2.2.1.2 The organisation of information in classifying reports

Generally, reports give information about things in general. They are specific with one kind of topic which here is “**Titfo tangasense**” (*The reproductive organs*), and write about it until the end. The general statement introduces the topic. In the general statement, a place phrase informs the reader where the reproductive organs are found and is realised in a possessive phrase **tekufuywa** (*of farm animals*).

In the description stage, the topic sentence of each descriptive paragraph informs the reader about the category of information that will be described in the paragraph. Consider the following examples, **Luhlelo lwetitfo tekulalana taletinsikati tifaka ekhatsi emasendze, umpipi, emadlala nembhobho wesidvodza.** (*The male reproductive system consists of the testes, the penis, male glands and the vas deferens.*) **Emasendze alengela ngaphandle kwentimba asesakeni lelibitwa ngekutsi sikhwama semasendze.** (*The testes are held outside the body in a bag of skin called the scrotum.*) **Umtimba wesidvodza unetincenye letintsatfu: inhloko, umkhatsi kanye nemsila (buka Sakhiwo 3.2).** (*Sperm cells consist of three parts: the head, the middle piece and the tail (see Figure 3.2).*) **Inhlanyelo yentalo sibhicongo sesidvodza nalokumanti.** (*Semen is a mixture of sperm and these fluids.*) **Luhlelo lwetitfo taletinsikati (Sakhiwo3.4) lwakhiwe ngetibilini temacandza lamabili, sibeletfo litfumbu lekwengcisa licandza.** (*The female reproductive system (Figure 3.4) consists of a pair of ovaries, the uterus and the Fallopian tubes*).

Classifying reports also organise information into categories. In this classifying report, the categories are **luhlelo lwetitfo tangasense letindvuna** (*the male reproductive system*) with subcategories **emasendze nempipi** (*testes and penis*), **sidvodza** (*sperm*) and **inhlanyelo yentalo** (*semen*). The other category is **luhlelo lwetitfo tangasense taletinsikati** (*the female reproductive system*) which has three subcategories **tibilini temacandza lamabili** (*a pair of ovaries*), **sibeletfo** (*uterus*) and **litfumbu lekwengcisa licandza** (*the fallopian tube*). Information gathered has to be about the topic. In preparing a report, it is wise to first present information in a diagram form. For example, here is a diagram for the above report:



The diagram displays two layers of categories in regard to the reproductive system. The first layer consists of three categories and similarly, the second layer has three categories. In the first layer, one category has been divided up into three to extend the system into a second layer. Such a diagram helps a student to know the number of paragraphs that a text will consist of.

The topic is introduced by a general statement which is not displayed in a straight forward way as illustrated in **Kuyintfo lebaluleke kakhulu kucondzisisa emandla entalo etilwane tekufuywa kutsi kube lula kukhetsa leto letitalana kakhulu.** (*It is important to understand the reproductive capacity of farm animals in order to select animals that can reproduce at optimum levels.*)

In the description stage, information is organised and bundled into descriptive categories as already demonstrated in the diagram above. Then, each unit of information is arranged in a specific paragraph.

The siSwati linguistic resources represent meaning and meaning relationships in classifying reports, as will be discussed in the following section.

4.2.2.2 Linguistic resources representing meaning and meaning relationships

Linguistic resources representing meaning and meaning relationships in classifying reports are explored in terms of the ideational, textual and interpersonal metafunctions, following the same pattern used in compositional reports.

4.2.2.2.1 Ideational metafunction

The above text in 4.2 exhibits a range of linguistic resources that realise the ideational metafunction in the siSwati language system. The following segment in lines 5-6 displays a range of properties in terms of the logical and experiential metafunction resources that represent the experiential and logical metafunctions. The sentence is repeated below,

Kuletinsikati, tibilini ngutona titfo letimcoka. Tikhicita emaseli aletinsikati noma emacandza.
(*The ovaries are the primary female sex organs. They produce female gametes or ova [eggs]*).

With regard to types of clauses and clause combinations, the first sentence demonstrates a single clause, initiated with a locative prepositional phrase **kuletinsikati** (*in females*), realising a relation of place. The locative prepositional phrase takes an independent clause **tibilini... letimcoka** (*the ovaries...are the important ones*). In the independent clause, the copulative pronoun **ngutona ...** (*they are the ones...*) includes a noun phrase **titfo letimcoka** (*organs that are important*). The copulative prefix **ngu-** (*its*) realises a meaning relationship of emphasis to the description of productive female sex organ, the ovaries. The independent clause consists of a relative clause **letimcoka** (*primary ones*).

In terms of the experiential metafunction, the prefix **ku-** (*in*) in the locative prepositional phrase **kuletinsikati** (*in females*) realises a circumstance of place. In the independent clause, the head noun **tibilini** (*ovaries*) is post-modified by the copulative pronoun **ngutona** (*they are the ones*), realising a relation of emphasis. The verb with the copulative pronoun represents a relational process. The participant carrier is the noun **tibilini** (*ovaries*) while the participant attribute is the relative predicate **letimcoka** (*primary ones*). The noun phrase **titfo** (*organs*) is post-modified by a relative predicate **letimcoka** (*primary*), realising a relation of attribute to the functions of female sex organs.

In terms of the logical metafunction, the second sentence in lines 5-6 displays a single, independent indicative clause **tikhicita... emacandza** (*they produce...eggs*). This clause includes a prepositional phrase **aletinsikati** (*of females*) and a noun phrase **emacandza** (*eggs*) which are joined with a conjunction **noma** (*or*), creating a relation of alternative.

In terms of the experiential metafunction, the verb in the verb phrase **tikhicita...** (*they produce...*) represents a material process, taking a participant theme which is represented by the AgrS **ti-** (*they*), referring to the pronominal meaning of the noun **tibilini** (*ovaries*). The noun phrase **emaseli** (*gametes*) is post-modified by a possessive noun phrase **aletinsikati** (*of females*), realising a relation of attribute to the gametes produced. The sentence ends with a noun phrase **emacandza** (*eggs*), realising a relation of result.

Consider, next, the linguistic resources of clause types and clause combinations in terms of the ideational metafunction that transpires in the segment found in lines 9-11.

Lelicandza lelivundzile liyehlukana ngetigaba letinyenti kute kwakheke emasotja lanesimo sebhola labese aba ngumbungu. (*The fertilised egg will divide many times to form a ball of cells that will become the embryo*).

With regards to the logical metafunction, the sentence in lines 9-11 demonstrates unequal dependency among its clauses. The dominant initiating clause is **liyehlukana...letinyenti...** (*it is divided...many times...*). The expanding clause **kwakheke...** (*to form...*) is joined with a conjunction **kute** (*to*), realising a relation of purpose to the process of division. The expanding infinitive clause **kwakheke...** (*to form...*) occurs in consecutive actions joined by a conjunction in **labese** (*that will*), realising a relation of result to the process of eggs becoming a ball of cells. The copulative noun **ngumbungu** (*embryo*) realises a relation of emphasis to the result of fertilization.

In terms of the experiential metafunction, the demonstrative noun **lelicandza** (*the egg*) is pre-modified by a demonstrative **le-** (*this*) of first position. This demonstrative noun is also post-modified by a relative predicate **lelivundzile** (*that is fertilised*), realising a relation of attribute. The verb in the relative predicate **lelivundzile** realises a relational predicate. The participant carrier is in the demonstrative noun phrase **lelicandza** while the participant attribute is the relative predicate **lelivundzile**, which realises a grammatical metaphor in that it is a nominalization of the verb **vundza** (*fertilize*). The verb in the verb phrase **liyehlukana** (*it divides*) represents a behavioural process. The theme participant is represented by the AgrS **li-** (*it*), referring to the pronominal meaning of the noun **licandza** (*an egg*). The verb phrase **liyehlukana** is post-modified by an adverb of manner **ngetigaba** (*divisions*), realising a relation of attribute. This adverb of manner is further post-modified by a relative phrase **letinyenti** (*many*), realising a relation of attribute. The verb in the infinitive verb phrase **kwakheke** (*to form*) represents a behavioural process. The goal participant is the noun phrase **emasotja** (*cells*) which is post-modified by the associative predicate **lanesimo** (*a shape*), realising a relation of attribute. The associate predicate **lanesimo** (*it has a*

shape) is further post-modified by a possessive phrase **sebhola** (*of a ball*). The verb in the future tense relative clause **latawubese aba...** (*which will become...*) represents a relational process. The participant carrier is represented by the concord AgrS **la-** (*which*), referring to the noun phrase **emasotja** (*cells*). The participant attribute is the copulative noun **ngumbungu** (*the embryo*), realising the circumstance of emphasis.

Consider, as a further example of the ideational metafunction (i.e. logical and experiential metafunction), a segment in lines 31-32 of the above text.

Ngesikhatsi sekuhlangana, lomtoto kumele wome noma ucine kute utongena kahle emसानेनी. (*During mating, the penis must be erect so that it can enter the vagina*).

The sentence in line 31-32 exemplifies a variety of clause types and clause combinations that realise various relations and resources for representing the writer's experience in the world. The dominant clause is the subjunctive clause introduced by a deficient verb **kumele wome... emसानेनी** (*must be erect...in the vagina*), realising a relation of obligation to the condition of the penis during mating. The dominant clause consists of a clause of equal dependency **ucine...** (*to be erect*) introduced by a conjunction **noma** (*or*), creating a meaning relationship of alternative. This introduces another conjunction **kute** (*so that*), creating a relationship of purpose to the preceding phrase. The dependent situative clause is **ngesikhatsi sekuhlangana...** (*during mating...*), which realises the relation of time.

In terms of the experiential metafunction, the dominant clause displays a head noun in the demonstrative noun phrase **lomtoto** (*the penis*) which is post-modified by two relative predicates **wome** (*become erect*) and **ucine** (*it becomes strong*), realising a relation of attribute to the condition of the penis during mating. The verb in the verb phrase **utongena** (*so that it can enter*) represents abstract material process. The participant theme is represented by the AgrS **u-** (*it*), referring to the subject concord of the noun in the demonstrative noun **lompipi** (*the penis*). The other theme participant is the noun in the locative noun **emसानेनी** (*in the vagina*) which realises the circumstance of place to the process of mating. The possessive phrase **sekulalana** (*of mating*) in the dependent clause realises grammatical metaphor in that, it is a nominalization of the verb **lala** (*mate*).

Consider another example in lines 41-42, repeated here.

Umsila uchubela sidvodza embili (*The tail propels the sperm forward*).

The sentence in lines 41-42 exemplifies a single independent clause **uchubela...embili** (*it propels...forward*). With regards to the experiential metafunction, the verb in the present tense indicative mood **uchubela** (*it propels*) represents an abstract material process. The participant cause is represented by the AgrS **u-** (*it*), referring to the noun **umsila** (*tail*) while the participant goal is the noun **sidvodza** (*sperm*). The noun phrase **sidvodza** (*sperm*) takes a prepositional phrase **embili** (*to the front*), realising a circumstance of place.

Consider the following linguistic resources of clause types and clause combinations in relation to the ideational metafunction that are evident in the segment in lines 47-48.

Lesinye lesincane sesidvodza sikhicita lokumanti lokungukona kunotsisa sidvodza (*The seminal vesicles secrete fluids that are the main nutritional source of sperm.*)

In terms of the logical metafunction, the sentence in lines 47-48 displays two clauses of unequal dependency. The dominant clause is **lesinye... lokumanti...** (*the vesicles...fluids*). The dependent clause is **lokungukona... sidvodza** (*that which...the sperm*). In the dependent clause are two relative clauses, one which occurs with a copulative **lokungukona...** (*that which is the main...*) and **kunotsisa...** (*it fertilises...*).

With regard to the experiential metafunction, the head noun in the dominant clause is pre-modified by the demonstrative first position **le-** (*this*) and also post-modified by the adjectival predicate **lesincane** (*a small one*), realising a relation of attribute to the size of the vesicles. The noun phrase in the demonstrative noun **lesinye** (*the vesicles*) is further post-modified by a possessive phrase **sesidvodza** (*of the sperm*) realising a relation of attribute. The verb in the verb phrase **sikhicita** (*secretes*) represents a behavioural process, taking a cause participant represented by the AgrS **si-** referring to the pronominal meaning of the noun in the demonstrative noun phrase **lesinye**. The implicit impersonal goal participant is realised by the relative concords in the post-modifiers **lokumanti** (*that is fluid*) and **lokungukona** (*that is the main*). The latter occurs with a copulative morpheme **ngu-** (*it is*), realising a relation of emphasis to the fluid secreted. The theme participant is the noun phrase **sidvodza** (*the sperm*).

In the paragraphs below, another example of the logical and experiential linguistic resources will be analysed in a classifying report written in siSwati language as found in lines 65-68.

Umsasane wemukela umpipi ngesikhatsi sekuhlangana (kulalana) futsi uba yindlela yekutalwa kwemntfwana losesiswini (*The vagina receives the penis during mating and becomes the birth canal for the new born*).

In terms of the logical metafunction, the sentence in lines 65-68 exemplifies two clauses of equal dependency. The initiating clause is **wemukela...sekuhlangana...** (*it receives...of mating...*). The expanding clause **uba... losesiswini** (*it becomes... in the womb*) is joined by the conjunction **futsi** (*and*), realising a relation of addition to the preceding clause.

With regards to the experiential metafunction, the verb in the verb phrase **wemukela** (*it receives*) realises a behavioural process. The theme participant is represented by the subject concord AgrS **we-** (*it*) referring to the noun phrase **umsasane** (*the vagina*) and the other theme participant is **umpipi** (*the penis*). The prepositional phrase **ngesikhatsi** (*during*) realises the circumstance of time to the event of receiving realised in the verb phrase **wemukela**. The head noun of the noun in the prepositional phrase **ngesikhatsi** is post-modified by a possessive phrase **sekulalana** (*of mating*) occurring with an infinitive verb, realising an attribute of time.

In the equal dependency clause following the conjunction, **futsi**, the nominal predicate in **uba yindlela...** (*it becomes a canal...*) realises a behavioural process. The theme participant in this nominal predicate is realised by the AgrS **u-** (*it*) in **uba** bearing the reference of **umsasane**. The noun in the nominal predicate **uba yindlela** is post-modified by a possessive phrase containing a possessive infinitival passive verb **yekutalwa** (*of birth*) of which the actor participant is realised in the possessive phrase **kwemntfwana** (*of a child*). The possessive infinitival passive verb exemplifies grammatical metaphor in that, it is a nominalization of the verb **tala** (*give birth*). The head noun in the prepositional phrase **kwemntfwana** is post-modified by a relative clause containing a locative predicate **lotesiswini** (*who is in the womb*).

In conclusion, in terms of the logical metafunction, clause types evident in a classifying report in the siSwati language system are mainly equal and unequal clause types, including initiating and expanding clauses. As clauses are combined, various logical relations are created, i.e. emphasis, alternative, result, emphasis, purpose, alternative, time and addition. The conjunctions involved are the same as those in compositional reports. With regards to the experiential metafunction, processes are abstract, material and behavioural. Some participants involve grammatical metaphor and are realised in subjective marker (concord) AgrS and object marker (concord) AgrO while most are realised in relative phrases, i.e. **lesivundzile** (*that is fertilized*), and in possessive infinitival phrases, i.e. **sekuhlangana** (*of mating*). Common participants are actor, goal and cause. Circumstances are of manner, time and place, realized mostly in prepositional phrases. The next section contains the analysis of the textual metafunction.

4.2.2.2.2 Textual metafunction

The classifying report in 4.2, exhibits a variety of cohesive relations. Consider, first, a segment in lines 1-10. In this segment, anaphoric pronominal and relative concord reference is demonstrated in lines 2, 3, 4, 6 and 8, where the demonstrative pronoun **leto** (*those*), points back to the class 8 noun **tilwane** (*animals*). The relative concord in the relative phrase **letimcokwa** (*that are important*) also refers back to the class 8 noun **titfo** (*organs*). The subject pronoun in the verb phrase **akhicite** (*they produce*) points back to the class 6 noun **emasendze** (*testes*). The subject pronoun in the verb phrase **tikhicita** (*they produce*) refers back to the class 8 noun **tibilini** (*ovaries*) in the previous sentence. The emphatic pronoun **tona** (*themselves*) points back to the noun in the noun phrase **letibilini** (*the ovaries*). The subject concord in the verb phrase **lihlangana** (*is combined*) points back to the class 5 noun **licandza** (*the egg*).

Further, substitution is used where an item refers back to reference. In addition, in lines 9-10 the noun phrase **licandza lelivundzile** (*a fertilised egg*) is substituted for the noun in the copulative noun **ngumbungu** (*the embryo*). The segment also makes use of coordinating conjunctions. In lines 7 and 9, conjunctions of addition **ne- bese** (*and*) and a conjunction of alternative **noma** (*or*) are exemplified. In line 2, a subordinating conjunction of purpose **kuze/kute** (*in order to*) appears.

Lexical choices of communicative purposes are realised through the technique of repetition, in line 2 and 4 of the class 6 noun **emasendze** (*testes*), in lines 1 and 3 of the noun in the possessive noun phrase **yetilwane** (*of animals*), in lines 5 and 6 of the class 8 noun **tibilini** (*ovaries*) is repeated in the noun phrase **letibilini** (*the ovaries*). Further, the class 5 noun **licandza** (*egg*) is repeated in lines 6, 8 and 9. Inclusion occurs in line 7 in the information on hormones produced by ovaries:

ositorogini (*oestrogen*) and **porogesitoroni** (*progesterone*). Synonymy is displayed in lines 8 and 9 in **licandza lelivundzile** (*a fertilised egg*)/ **ngumbungu** (*embryo*) and in line 8 in **sekuhlangana** (*mating*)/ **kulalana** (*copulation*). Antonymy is also demonstrated in lines 2 and 5 in the nouns **emasendze** (*testes*): **tibilini** (*ovaries*), in lines 3 and 5 in the phrases **letindvuna** (*that are males*): **letinsikati** (*that are females*) and in lines 4 and 6 in **sidvodza** (*sperm*): **emacandza** (*ovum*).

Relations of collocation are presented in lines 4 and 6 in **emadlala alabadvuna** (*male hormones*) and **emaseli aletinsikati** (*female gametes*).

Consider another segment in lines 12-52 which exemplifies a variety of resources for cohesive purposes. Anaphoric reference occurs in line 17, where the pronominal subject concord in the verb phrases **sigcineka** (*it is stored*) refers back to the class 7 noun **sidvodza**. In line 20, the pronoun AgrS in the verb phrase **likhicita** (*it secretes*) refers back to the class 5 noun phrase **litfumbu**

lemchamo (*the urethra*). In line 46, the absolute pronoun **yona** (*it*) also points back to the class 9 noun phrase **inhlanyelo yentalo** (*semen*) in the previous sentence. Demonstrative anaphoric reference **loku** (*this*) appears in lines 26, 27 and 32 pointing to referents in previous sentences. In line 41, the AgrS **u-** (*it*) in the verb phrase **uchubela** (*it propels*) refers back to the class 3 noun **umsila** (*tail*). Cataphoric reference is displayed in line 43, in the use of AgrS **a-** (*they*), pointing forward to the class 6 noun phrase **emaseli esidvodza** (*sperm cells*).

Substitution is used in the text and realised in reference relations. Instances of coordinating and subordinating conjunctions are displayed in lines 17 **kuze** (*until*), 23 **ne** (*and*) and 37 **kanye** (*and*). Lexical choices are illustrated in the use of repetition, inclusion, synonymy, hyponymy, meronymy and collocation. Repetition is illustrated in the class 6 noun **emasendze** (*testes*) in lines 12, 15, 18, 25, 26 and 28. The class 7 noun **sidvodza** (*sperm*) appears in lines 17, 19, 20, 21, 37, 39, 41, 42, 43, 44, 46, 47, 48 and 50. In lines 13 and 20, the class 3 noun **umpipi** (*penis*) is repeated. Inclusion is displayed in the information on the male reproductive system which consists of **emasendze**, **umpipi**, **emadlala** (*male glands*) and **nembhobho wesidvodza** (*the vas deferens*). In lines 14, synonymy is displayed in **tenkunzi** (*a bull*) / **silwane lesidvuna** (*a bull*) and in line 24 in **umtoto** (*penis*) / **sitfo sekulalana** (*organ of copulation*). Meronymy is exemplified by the repeated nouns above as they are parts that fall under the whole **luhlelo lwetitfo tekulalana taletindvuna** (*the male reproductive system*). A further example of meronymy is indicated in figure 3.1 where the whole is **luhlelo lwesitfo sangasese senkhomati** (*the male reproductive system of a bull*) and the parts are labelled in the diagram. The whole text displays hyponymy, where the general is the topic **titfo tangasense** with two specific items **titfo tangasense taletindvuna** (*the male reproductive system*) and **titfo tangasense taletinsikati** (*the female reproductive system*). Collocation relations are demonstrated in lines 19 in **litfumbu lekwengcisa umchamo** (*the urethra*) line 45 **inhlanyelo yentalo** (*the semen*).

In terms of grammatical cohesion, the segment in lines 52-68, displays a variety of cohesive patterns. Endophoric anaphoric reference is illustrated in line 56, where the subject concord in the verb phrase **lubitwa** (*is called*) refers back to the class 11 noun **luhlangotsi** (*the part*). In line 62, the AgrS in the verb phrase **sinotsisa** (*it nutrifies*), points back to the class 7 noun **sibelelfo** (*the uterus*). In line 65, the pronoun **i-** (*it*) in the verb passive verb phrase **iniketwa** (*it is supplied*) refers back to the noun **endometiriyamu** (*endometrium*) and the AgrS **u-** (*it*) in the verb phrase **uhlangana** (*it connects*), in line 66, points back to the class 3 noun **umlomo wesibelelfo** (*the cervix*). Demonstrative anaphoric reference and ellipsis is realised in line 57 in the demonstrative pronoun first position **lapha** (*here*), pointing back to the previous sentence. In line 67, exophoric (outside) homophoric reference is displayed where the identification of the possessive infinitive

noun phrase **sekulalana** (*mating*) can be retrieved by reference to cultural knowledge. Further ways in which texture is achieved in this segment is through substitution, through the use of reference where substitute forms are used.

With regards to lexical cohesion, the segment illustrates the use of repetition, inclusion, synonymy, antonymy, meronymy and collocation. Repetition occurs in words, i.e. the noun **litfumbu** (*tube*) is repeated in lines 54, 55, 56, 57, 58 and 60. The noun **licandza** (*an egg*) is repeated in lines 53, 54, 55, and 59. The noun **sibeletofo** (*the uterus*) also appear in lines 53, 62, 63, 65, and 66. Further, the noun **umsasane** (*the vagina*), occurs twice in line 66. An instance of inclusion and meronymy is displayed in lines 52-53, in information on the constituents of the female reproductive system: **lwakhiwe ngetibilini temacandza lamabili** (*consists of a pair of ovaries*), **sibeletofo** (*the uterus*) and **nelitfumbu lekwengcisa licandza** (*and the fallopian tube*). Synonymy is demonstrated in lines 56-57 in **luhlangotsi lwangetulu lwelitfumbu lekwengcisa emacandza** (*the top part of the fallopian tube*)/**yi ampula** (*the ampulla*) and in lines 58-59 **tinwele letincane** (*tiny hairs*)/**siliya/tiboya/** (*cilia*). Antonymy is used in lines 59 and 66-67, in joined infinitival noun phrases **kuvaleka: nekuvuleka** (*closing: opening*) and in the nouns **umsasane** (*the vagina*): **umpipi** (*the penis*). Collocation occurs in line 52 in the words **luhlelo lwetitfo taletinsikati** (*the female reproductive system*).

In summary, the classifying report in text 4.2 displays a variety of grammatical and lexical patterns. Grammatical cohesion appeared frequently in the form of endophoric anaphoric reference, using personal pronouns and sometimes demonstrative pronouns which realises the use of substitution. Some instances of homophoric reference also occurred in the use of words whose meaning is derived from cultural knowledge. The occurrence of coordinating additive conjunctions was also frequent. Lexical cohesion was achieved in the use of the repetition of words, in inclusion, synonymy, antonymy and collocation.

With regards to theme rheme in classifying reports, the topic or sub-topic appears in theme position. In this case, the reader is well oriented towards the topic and detailed information that follows. Consider the following paragraph from text 4.2 that displays sentence themes.

Theme-rheme	Theme-rheme
<p>Inhlanyelo yentalo</p> <p>43] Ngesikhatsi anyakata emaseli esidvodza embhobheni wesidvodza asuke abhicene nalokumanti lokuphuma esinyeni lesincane 45] sesidvodza, edlaleni lelitungeletele intsamo yesinye nemadlala. Inhlanyelo yentalo sibhicongo sesidvodza nalokumanti. Yona isitaputapu lesilulata lesikhutsata kunyakata kwesidvodza. Lesinye lesincane sesidvodza sikhicita lokumanti lokungukona kunotsisa sidvodza. Etinkunzini, kutfundza kanye kukhipha inhlanyelo yentalo lesemkhatsini wemamililitha lamabili nalalishumi. 50] Imililitha yinye icuketse sidvodza lesinyenti lesingaba ngemamiliyoni langemakhulu lamabili.</p>	<p>Semen</p> <p><i>As sperm cells move along the vas deferens, they are mixed with fluids from the seminal vesicles, the prostate gland and Cowper's glands. Semen is a mixture of sperm and these fluids. It is a sticky, cream-coloured liquid that stimulates movement for the sperm. The seminal vesicles secrete fluids that are the main nutritional source of sperm. In bulls, each ejaculation releases between 2 ml and 10 ml of semen. Each millilitre contains as many as 2000 sperm.</i></p>

According to this extract, themes in classifying reports vary. In the above example the theme for the paragraph is **inhlanyelo yentalo** (*semen*). In the first sentence the writer chose a point of departure that consists of a dependent clause with a marked theme **Ngesikhatsi anyakata emaseli esidvodza embhobheni wesidvodza...** (*As sperm cells move along the vas deferens*) and the rest of the clause is the rheme which provides new information. The following theme shifts to an unmarked theme as it begins with the topical sentence theme **Inhlanyelo yentalo...** (*Semen...*). The next clause resumes reference of the noun *semen* by using the emphatic pronoun **Yona...** (*It...*) which substituted the noun **inhlanyelo yentalo**. The next clause shifts the topic slightly picking up on **Lesinye lesincane sesidvodza ...** (*The seminal vesicles...*). The following clause shifts to an unmarked theme realized in a prepositional phrase **Etinkunzini...** (*In bulls...*) while the next clause picks from information in the previous sentence **Imililitha yinye...** (*Each millilitre...*). Hence, classifying reports are characterized by instances of marked and unmarked themes in the form of topical themes, dependent clauses and prepositional phrases.

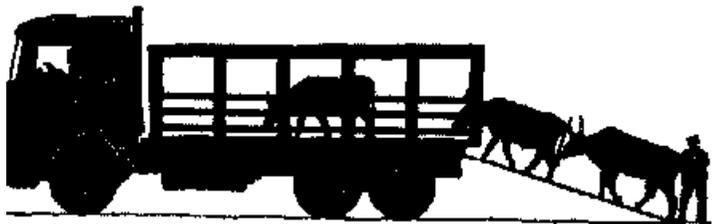
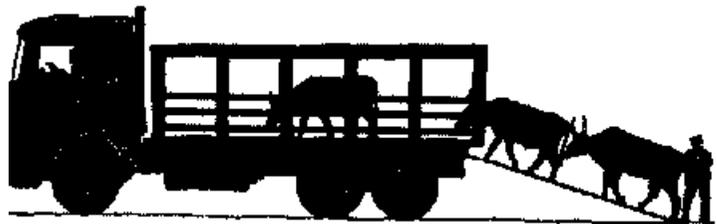
4.2.2.2.3 Interpersonal metafunction

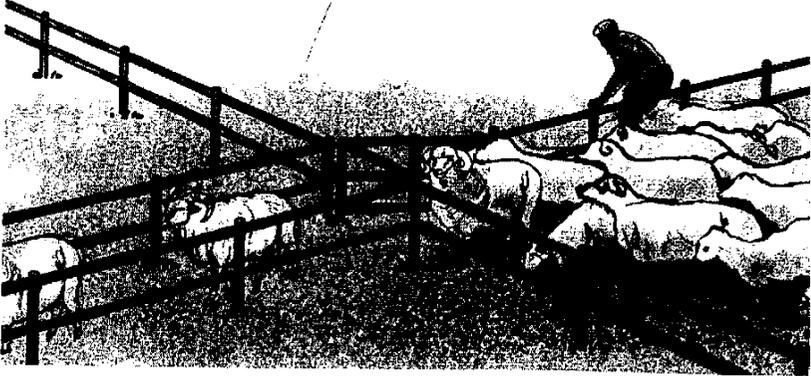
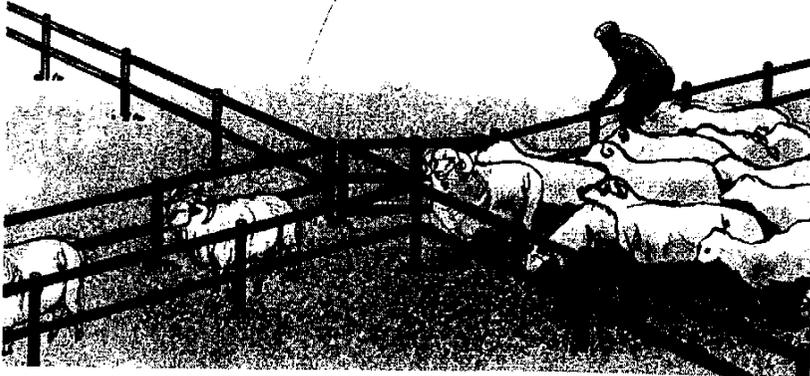
Similarly, the classifying report in text 4.2 does not demonstrate instances of evaluative language use because it is concerned with describing the male and female reproductive organs in a factual way.

In summary, the text on reproductive organs illustrates the design of a classifying report. The text exhibits ideational resources (logical and experiential), textual resources (cohesion and theme rheme) beyond the clause and at clause level. This scientific report does not include linguistic resources of evaluation. In the following section will be an analysis on consequential explanations, with reference to a model text.

Text 4.3

<p>1] Ekufuyeni kwalamuhla, kunakekelwa kwetilwane temfuyo kuluhlangotsi lolusebentako kuyo yonkhe imihlambi. Tilwane kufanele tinakwe ngendlela lefanele lengakhinyabeti luhlelo lwesikhatsi kuwo wonkhe umshikashika.</p> <p>5] Lwati ngetimilo taetilwane luniketa bafuyi kucondza lokujulile ekugadzeni tilwane tabo.</p>	<p>In modern farming, the handling of farm animals forms a vital part of the effective management of any herd. Handling of animals must be done in the most suitable way without wasting suitable time in the process. Knowledge of the behaviour of these animals provides farmers with more insight into the management of their animals.</p>
<p>Kunakekela</p> <p>Tilwane tingakudzinga kunakekelwa ngetizatfu letilandzelako: Ngesikhatsi seluhlelo lwetempilo yetilwane lapho kudzingeka kutsi tiniketwe imitsi, noma ngesikhatsi sekuhlola tifo noma kulimala</p>	<p>2.1 Handling</p> <p>Animals might need to be handled for the following reasons: During an animal health programme when medication needs to be administered, or when animals are inspected for disease or injury</p>
<p>10] Ngesikhatsi seluhlelo loluvamile lwekugadza tilwane njenge kujuba timphondvo, kuphakula nekujutjwa kwemisila yetilwane</p>	<p>During the normal management programme such as dehorning, marking, castration and docking of animals</p>
<p>Ekuhambeni kweluhlelo lwetekuvikela nekwelashwa kwetilokatana tangekhatsi, njenge makululu ngekusidibhisa lesilwane</p>	<p>such as ticks, by dipping the animal In the course of a programme of prevention and treatment of external parasites,</p>
<p>Nakuvikeliswa nakhatsi kwelashwa tilokatana tangehandle letifana 15] nemanoyoka lamadze</p>	<p>For the prevention and treatment of internal parasites like tapeworms</p>

<p>Nakukalwa budzala noma kuhlelwa tilwane ngemihlambi yato</p>	<p>Determination of an animal's age or the classification of the animals in a herd</p>
<p>Nakwakhiwa sigcinamlandvo ngenchubo yekukhula, sisindvo nekuhlola kutsi setilungele yini kuyotsengiswa.</p>	<p>Generation of data such as the growth rate, weight and inspection for market-readiness</p>
<p>Nakwentiwa sigcinamlandvo sesilwane sinye, njenge luhlolo 20] lwekwemitsa</p>	<p>Determination of special data from an animal, such as a pregnancy test</p>
<p>Ekwetfwalweni kwetilwane njengoba kutjengiswa esakhiweni 1.12 (natiya emakethe noma natijikeleta efamini)</p>  <p>Sakhiwo 4.5 Tinkhomo tilayishelwa elolini</p>	<p>Transportation of animals as shown in figure 1.12 (to the market or around the farm)</p>  <p>Figure 4.5 Cattle being loaded onto a truck</p>
<p>Tilwane letinjenge telubisi tidzinga kunakekelwa onkhe malanga kute tikhicite kahle</p>	<p>Animals like dairy cattle need to be handled on a daily bases for production purposes</p>
<p>Kufuywa kwesilwane kuya ngebukhulu baso, sibonelo, timvu tingeluswa</p>	<p>The size of the animal will determine how it is handled. For example,</p>

<p>ngumuntfu munye kantsi tinkhomo tingadzinga sibalo sebantfu.</p>	<p>sheep can be handled by a single person while cattle may need more people to handle them.</p>
<p>Tinkhomo futsi tingadzinga tinsita letibitako naleticinile. Tilwane letihlala 30] tinakekelwa tibabete inkinga ekunakekelweni.</p>	<p>Cattle will also require more sophisticated and stronger handling facilities. Animals that are handled frequently respond more easily to handling.</p>
<p>Indlela yekubiyela nekufakwa kwemagede kungaba lusito lolukhulu kakhulu kumfuyi wetilwane. Bukhona betibaya esigangeni semfuyo lenkhulu kungaba lusito kakhulu (buka Sakhiwo 1.13).</p>  <p>Sakhiwo 4.6 Tilwane tiholelwa esikhaleni lesincane kuze umfuyi akhone kutehlukanisa.</p>	<p>The layout of fences and the position of gates may assist the farmer in handling animals. Having pens in the veld on extensive farming areas can prove to be very helpful (see Figure 1.13).</p>  <p>Figure 4.6 Animals are guided into a narrow passage, or race, to enable the farmer to separate them.</p>

<p>Esikhatsini lesinyenti bafuyi bakhonile kusungula tintfo letingakavami letibasitako ekufuyeni tilwane ngaphandle kwesidzingo setisebenti.</p>	<p>In many cases, farmers have developed unique apparatus to assist them in handling animals with the least input of labour.</p>
<p>Tilwane tidzinga kuphatfwa kahle, futsi akukamele ticoshwe. Kubancono kutibeka ngeticumbi makumele titfutwe. Sizatfu saloku kutsi 40] tilwane tihamba ngemihlambi kantsi futsi tiyalunga tinakekeleke kalula natindzawonye.</p>	<p>Animals need to be handled calmly and should never be chased. It is best to group animals together when moving them. This is because they are herd animals and are calmer and easier to handle in a group.</p>
<p>Letinye tilwane ativani nekunakekelwa njenge ositiriji lencane, iyafa nekufa. Tilwane letemitsi naletigulako kumele tinakekelwe kahle nakudzingekile.</p>	<p>Some animals are very sensitive to handling. For example, young ostriches are easily stressed and might die. Pregnant or sick animals should be handled very carefully and when absolutely necessary.</p>
<p>45] Kunakekela tilwane kubita kucaphela ngoba tingayibanga ingoti kubelusi bato. Tilwane phela tingakhahlela, tilume phindze tente noma yini lengakabhekeki. Sizatfu lesibalulekile sekujutjwa kwetimphondvo tetilwane kuvikela kutsi tingalimatani, futsi tingamlimati umnakekeli wato. Nakutfutwa tilwane letifana netinkhomo, kumele kube nebuciko 50] kuze tingeci ngoba loko kungabanga tingoti. Loku kungabanga kulimala kwebhizinisi, ikakhulukati uma lilanga likhipha umkhovu etjeni.</p>	<p>Care should be taken when handling animals as they could injure their handlers or other animals. Animals can kick, bite and sometimes behave unpredictably. One of the main reasons that animals are dehorned is to prevent them from hurting one another and their handlers. When animals such as cattle are moved, great care should be taken to prevent a stampede, since this could cause serious injuries. This would lead to a loss of production, especially on a very hot day.</p>
<p>Tilwane letinganakwa naletiphethwe kabi tiyalimala. Loku kungasehlisa</p>	<p>Poorly or incorrectly handled animals could be injured.</p>

sisindvo semtimba emadzeleni ngenca yekulinyatwa, kuphuta **kwekucina kwenyama lemhlophe emva kwekubulawa kwesilwane** noma lizinga 55] lelibi lenyama.

This would lower the grading of their carcasses at the abattoir owing to bruising, delayed **rigor mortis** or poor meat quality.

Kumele kube nesiciniseko sekuvikeleka nakuchutjwa tilwane eceleni kwemgwaco nakhatsi teca umgwaco.

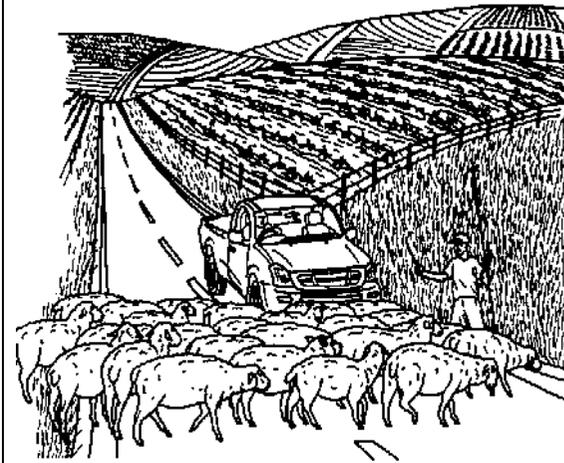
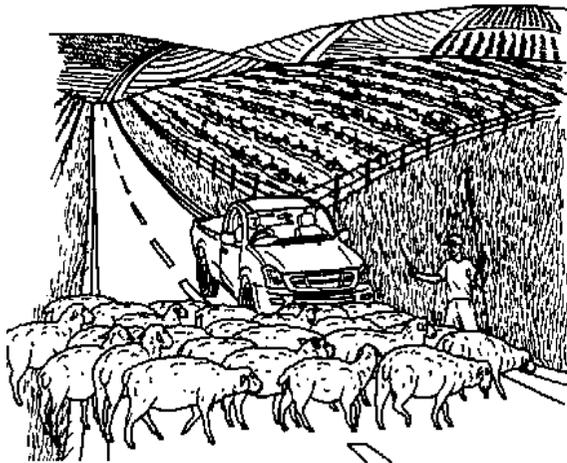
Special attention should be given to safety when animals are moved next to a road and when crossing a road.

Kuyadzingeka kutsi kwetfwalwe imijeka lebovu lecwayisa bashayeli. (buka 1.15

Red flags should be carried and shown to traffic on the road (see Figure 1.15).

60] Kushaya inkwele, kumemeta nekubhomisa siswebhu ngimisindvo lesetjentiswa nakuchutjwa tilwane.

Whistling, shouting and cracking of whips are sounds often associated with animals that are being moved.



Sakhiwo 4.7 Ngesikhatsi tilwane tichutjwa eceleni kwemgwaco, kusetjentiswa imijeka lebovu kwatisa bashayeli kutsi banciphise litubane.

Figure 4.7 When animals are being moved alongside a road, red flags are used to warn traffic to slow down.

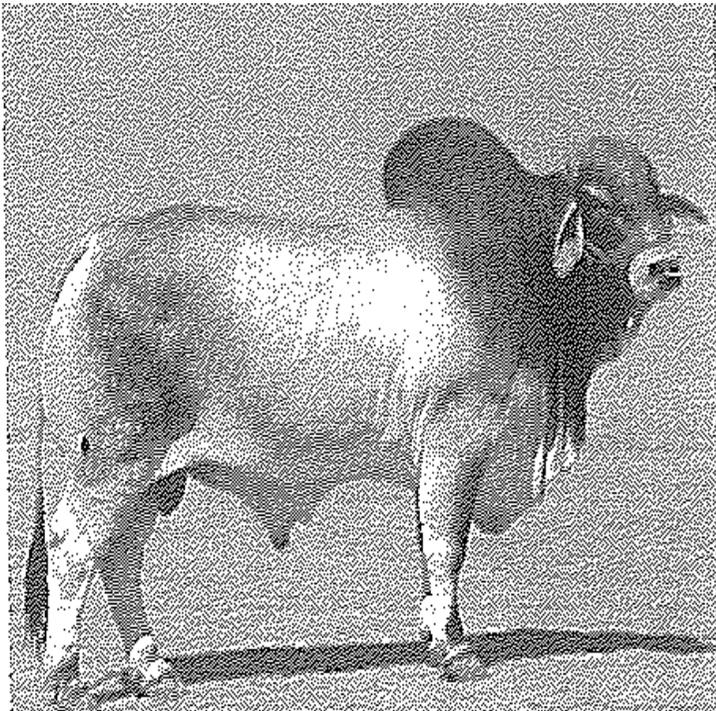
2.2 TIMILO

Liso lesilwane leliseceleni kwenhloko lisita kutsi sikhone kubona indzawo lebanti. Uma uhlanguana nesilwane kumcoka kusilandzela ngemuva futsi uhambe kancane.

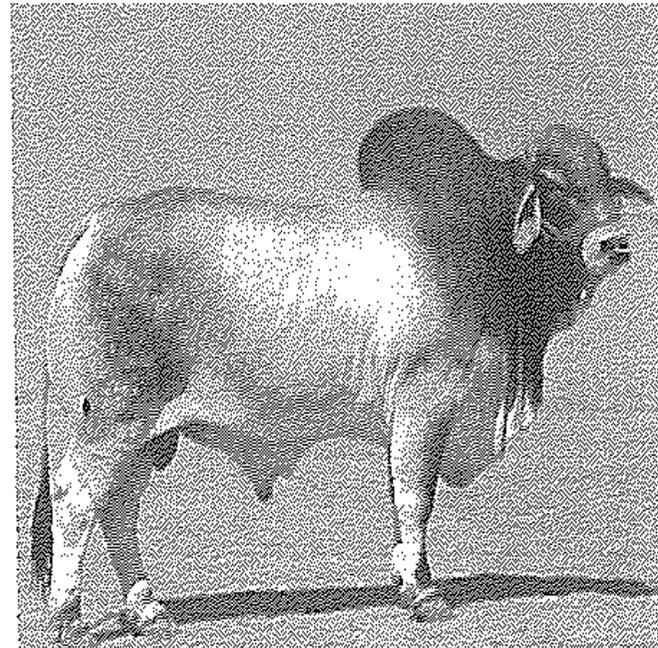
2.2 BEHAVIOUR

The position of an animal's eye on the side of its head gives it the special ability of a wide angle of sight. When approaching an animal, it is important to move from behind and very slowly.

65] Letinye tinhlobo tetilwane atisito tekufuywa atifundziseki tilunga esigangeni (buka Sakhiwo 1.16) kantsi letinye tiyafundziseka (buka Sakhiwo 1.17).



Some breeds of animals have a wilder temperament that makes them more difficult to handle (see Figure 1.16) while others are easier to handle because they have a tamer temperament (see Figure 1.17).



Sakhiwo 4.8 Libhulamane lisibonelo seluhlobo lwetinkhomo letiniketana bulukhuni ekutigaleleni.



Sakhiwo 4.9 ISareni isibonelo seluhlobo lwembuti lefundzisekako.

Figure 4.8 The Brahman is an example of a cattle breed that is difficult to control.

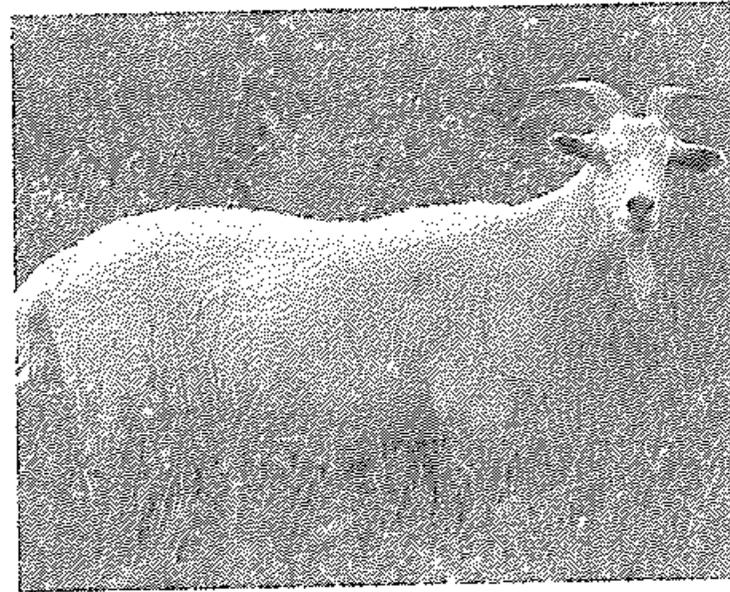
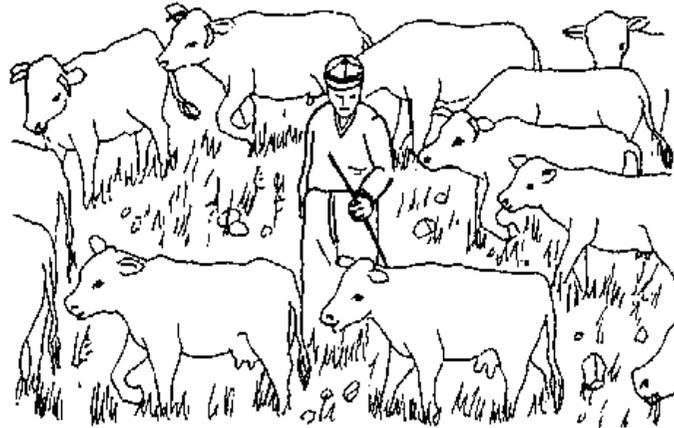


Figure 4.9 The Saanen is an example of a tame breed of goat.

Indlela lebema ngayo baholi ilawula indlela lekumele tiyilandzele tilwane. Ngakoke indlela yekuma kwemelusi kumele kube ngulekhomba lapho kuondvwe khona, njengoba kutjengisiwe ku Sakhiwo 1.18.

The position of the handlers will determine the direction in which animals will move. It is therefore important to position the handlers correctly and direct their movement in order to get animals moving in the desired direction, as illustrated in Figure 1.18.



Sakhiwo 1.18 Tinkhomo titungeletele umelusi lotjengisa umkhondvo lekumele tiwulandzele tilwane.

Timilo tetilwane tilawulwa simo sato ekufundzisweni, luhlobo, 70] umhlambi, budzala, simo semtimba nesimo semphilo. Lwati nebunaka bemelusi kanye nemahlandla ekunakekela takhiwo kanye nemathulusi lasetjentiswako nesimo kumcoka kakhulu.

Esikhatsini lesinyenti tilwane tiyakhululeka endzaweni lethulile nakhatsi tiphETFwe ngendlela letiyejwayele yemalanga onkhe.

75] Sibonelo, tinkhomo telubisi tivele ticala kukhipha lubisi nativa

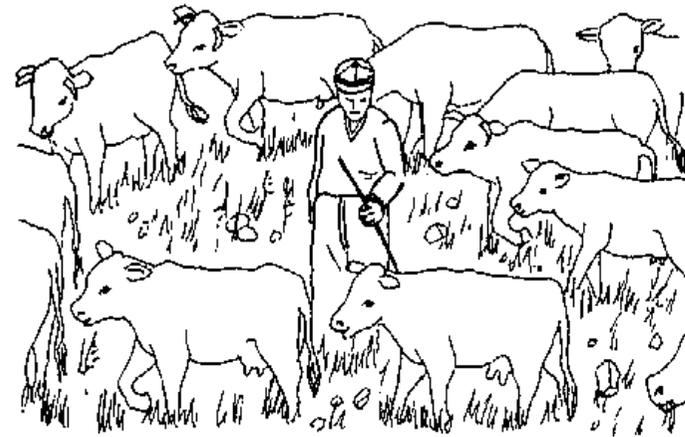


Figure 1.18 Cattle moving around a handler, showing the flow pattern of animals.

The behaviour of animals is determined by their tameness, type, breed, age, physiological state and health status.

The experience and calmness of the handler as well as the frequency of handling, the facilities and equipment used and the environment all play an important role

Generally, animals are more relaxed in a peaceful environment and when treated in a familiar way to which they are exposed on a regular basis. Dairy cattle will, for example, start releasing milk just from the

<p>kunuka nemsindvo walapho tisengelwa khona. Kuwashwa kwemibele kukhipha ihomoni I okisitosini, lesita kuphakatsa wemibele</p>	<p>smell and even the noise of the milking parlour. Washing of the udder stimulates the release of the hormone oxytocin, which assists in releasing milk from the udder.</p>
<p>Inkhomati ayihlaliseki nasekusondzele emalanga ekunyeleta, futsi 80] iyalivikela litfole layo. Ngemvamisa, tilwane ativani nemsindvo lofana newekukhonkotsa kwetinja noma kubhama kwesiswebhu. Ungacali ucoshe tilwane ngekutijikijela ngetintfo letitsite noma tinsimbi nalokuhlabako lokungasilimata silwane. Kuyaluka lokungakabhekeki nalokuphangisako kuyatikhinyabeta tilwane kangangokuba 85] tingaphindzisela kabi.</p>	<p>The sow will be very restless close to parturition and will be very protective toward her new-born young. In general, animals don't like loud noises like the barking of a dog or the cracking of a whip. Never throw objects at animals or use metal or sharp objects to chase them as this can harm the animal. Sudden fast movements make animals tense and likely to react unpredictably.</p>
<p>Sibalo seabantfu kumele sibe sincane ekunakekeleni tilwane. Loku kubaluleke kakhulu endzaweni lapho bangakesweleki khona. Tinja letifundzisiwe (buka sakhiwo 1.19) tingasetjentiswa ekugaleleni timvu kanye netinkhomo. Tinja tona tiba baholi labamangalisako ngoba tilalela 90] inkwele yemelusi. Ngakulokunye, emahhashi netidududu kungasetjentiswa ekweluseni tinkhomo naletinye tilwane. Sakhiwo setinsita talamuhla tibekwe ngendlela yekutsi akusadzingeki tisebenti letinyenti.</p>	<p>The number of people who handle animals should be limited. This is particularly important where limited labour is available. Specially trained dogs (see figure 1.19) can be used to help with the handling of sheep and even cattle. The dogs react to the handler's whistles and can therefore move these animals very effectively. Horses or motorcycles can also be used to move cattle and other farm animals. Modern facilities are built in such a way that less labour is needed to handle animals.</p>



Sakhiwo 1.19 Tinja tingasita kunakekela tilwane



Figure 1.19 Dogs can assist in handling some animals

4.2.3 Consequential explanation: **Kunakekela netimilo** (*Handling and behaviour*)

4.2.3.1 The generic structure of a consequential explanation

Explanations explain how or why things occur. Recall that there are four types of explanations postulated. A sequential explanation explains a phenomenon by formulating a sequence or order in which things occur, as in canning of sardines. A conditional explanation gives alternative causes and effects surrounding a phenomenon. A factorial/causal explanation explains a number of factors responsible for the phenomenon, involving several phases, i.e. factors responsible for earthquake. The fourth, a consequential explanation, explains the reasons for an outcome or the consequences of an outcome. All these genres were discussed in chapter two. The generic structure of the text above exemplifies a consequential explanation whose purpose is to explain multiple effects of handling animals and knowledge about their behaviour. In section 2.5.2, the schematic structure of a consequential explanation was given with two stages, namely the phenomenon of cause and the explanation of consequences. Next, we will consider the phenomenon stage.

The phenomenon stage

The phenomenon stage explains causes and results as demonstrated in lines 1-5, relating to the handling of farm animals together with background information on how animals should be handled and the benefits of having insight into the management of animals. A genre segment of protocol is illustrated in the warning concerning suitable handling of animals. This is followed by an explanation stage in the next paragraph.

The explanation stage

The explanation stage includes two phases, in that in lines 7-61 the explanation is on why animals need to be handled, while in lines 62-92, the explanation relates to the behaviour of animals. In the first phase of the explanation stage, multiple of reasons for the outcome of handling animals are explained starting from the most important in line 11 **Ngesikhatsi seluhlelo lwetempilo yetilwane lapho kudzingeka kutsi tiniketwe imitsi, noma ngesikhatsi sekuhlola tifo noma kulimala** (*During an animal health programme when medication needs to be administered, or when animals are inspected for disease or injury*) to the least important in lines 56-57 **Kumele kube nesiciniseko sekuvikeleka nakuchutjwa tilwane eceleni kwemgwaco nakhatsi teca umgwaco.** (*Special attention should be given to safety when animals are moved next to a road and when crossing a road*). Similarly, the explanation in the second phase is ordered from the most important in lines 62-63 **Liso lesilwane leliseceleni kwenhloko lisita kutsi sikhone kubona indzawo lebanti.** (*The*

position of an animal's eye on the side of its head gives it the special ability of a wide angle of sight) to the least important line 86 **Sibalo sebantfu kumele sibe sincane ekunakekeleni tilwane.** (*The number of people who handle animals should be limited*).

The explanation stage exemplifies various genre segments such as explanation which is exemplified in lines 6-14 and 16 where reasons for handling animals are explained, e.g. during health programmes, during a management programme, for prevention and treatment, for the determination of age, generation of data and for transportation purposes. In lines 23-35 a genre segment of a conditional explanation is demonstrated, referring to dairy cattle, handling facilities, response from animals, layout of fences, pens. A descriptive genre segment is also illustrated in lines 33-35, relating to tools used to handle animals such as a strong rope, a strong pen, a head clamp, nose pliers and apparatus that assist in handling animals.

In the explanation stage, lines 38-46 and 56-57 demonstrate a genre segment of protocol, concerning things that should not be done which include warnings, such as never to chase animals, move animals together, sensitivity of animals, careful handling of pregnant or sick animals, protection against injury and safety when moving animals. In lines 52-55, the genre segment of consequential explanation is evident in that the consequences of not handling animals well are explained, for example, loss of production, injury and lower grading of carcass. Lines 60-61 provides extra information related to animal handling such as sounds often associated with animals, i.e. whistling and shouting.

In lines 62-63 a factorial explanation is represented in a description stage in that factual information is given concerning the position of an animal's eye and breeds of animals with wilder temperament. A genre segment of description is displayed in lines 66-68 and 80-85, referring to the handler's position, behaviour of animals, an environment favoured by animals, parturition period, noise not favoured by animals and movements. In the description stage, a protocol genre is exemplified in lines 81-83, including warnings such as never to throw objects at animals and limit to the number of handlers. Lines 87-93 demonstrate background information concerning handlers such as trained dogs, horses or motorcycles and modern facilities.

A consequential explanation genre is organised into two stages: phenomenon cause and the explanation of consequences. The phenomenon stage identifies the phenomenon to be described by giving background information and outcomes. Different genre segments can be employed such as conditional explanation, description, protocol, consequential explanation, factorial explanation and

additional information. The following paragraph will examine the language components used in consequential explanations in the siSwati language system.

4.2.3.1.1 Language components used in consequential explanations

Text 4.3 exhibits language components used in explanations such as linking devices for sequencing which include dependent time clauses in line 49 **nakutfutfwa tilwane letifana netinkhomo...** (*when animals such as cattle are moved...*), a time phrase in line 10, **ngesikhatsi seluhlelo loluvamile...** (*during the normal management...*) and a verb phrase in line 79 **ayihlaliseki...** (*very restless...*).

Linking devices for showing cause and effect are also language components of consequential explanations. These include conjunctions in line 9 **noma** (*or*); also dependent clauses with the linking word “because”, in lines 49-50 **Nakutfutfwa tilwane letifana netinkhomo, kumele kube nebuciko kuze tingengci ngoba loko kubanga tingoti.** (*When animals such as cattle are moved, great care should be taken to prevent stampede, since this could cause serious injuries.*); clause phrases beginning with because, **sizatfu saloku kutsi tilwane tihamba...** (*this is because they are...*); cause verbs in line 26 **...kuhlola kutsi setilungele yini kuyotsengiswa.** (*...inspection for market readiness*) and change of state verbs, in lines 52-53 **...kungasehlisa sisindvo semtimba emadzeleni...** (*would lower the grading of carcasses...*)

Consequential explanations employ devices for pinpointing location such as phrases of place, in line 22 **...efamini** (*...around the farm*). In addition, devices for being accurate and technical are displayed in consequential explanations such as complex noun groups with qualifiers for accuracy, in line 86 **Sibalo sebantfu kumele sibe sincane ekunakekeleni tilwane.** (*The number of people who handle animals should be limited.*), technical verbs and packaging nouns for compressing meanings into one technical word such as **kuphakula** (*castration*), and in line 11 **tinkhomo telubisi** (*dairy cattle*) in line 48.

Explanations that deal with specific things such as particular events or concepts can be in the present, past or future tense, for example, in line 33 **lamathulusi lasetjentiswa ekunakekeleni tilwane...** (*the tools that are used to handle large animals*) is in the passive present tense, and in line 27 **kufuywa kwetilwane kuya ngebukhulu baso** (*the size of the animal will determine how it is handled*) is in the future tense.

In explanations, processes or verbs are used where one process or verb is linked to another process or verb so that a logical sequence is established, as in lines 45-49 **Kunakekela tilwane kubita**

kucaphela ngoba *tingayibanga* ingoti kubelusi bato. Tilwane phela *tingakhahlela*, tilume phindze *tente* noma yini *lengakabhekeki*. Sizatfu lesibalulekile *sekujutjwa* kwetimphondvo tetilwane *kuvikela* kutsi *tingalimatani*, futsi *tingamlimati* umnakekeli wato. (*Care should be taken when handling animals as they could injure their handlers or other animals. Animals can kick, bite and sometimes behave unpredictably. One of the main reasons that animals are dehorned is to prevent them from hurting one another and their handlers.*)

Language components of consequential explanations are demonstrated in text 4.3. In the next section, the organisation of information in consequential explanations is discussed.

4.2.3.1.2 The Organisation of Information within Consequential Explanations

Consequential explanations may explain the reasons of an outcome or the consequences of an occurrence. This text explains reasons for **kunakekelwa kwetilwane** (*animal handling*). In this case, the organisation of the text reflects the explanation of reasons for the outcome by ordering the reasons from the most important to the least important, hence, in text 4.3 information is ordered from the health aspect to the number of people that can handle animals. These factors are not organised according to a sequence of time but according to the writer's opinion of their importance.

The introduction generally has the function of classifying and describing the particular phenomenon to be explained. This is exemplified in lines 1-4 **Ekufuyeni kwalamuhla, kunakekelwa kwetilwane temfuyo** (classifying) **kuluhlangotsi lolusebentako kuyo yonkhe imihlambi. Tilwane kufanele tinakwe ngendlela lefanele lengakhinyabeti luhlelo lwesikhatsi kuwo wonkhe umshikashika.** (*In modern farming, the handling of farm animals forms a vital part of the effective management of any herd. Handling of animals must be done in the most suitable way without wasting suitable time in the process.*)

When an explanation moves to the explanatory sequence stage, the grammar changes significantly. In this text, the sequence consists of a series of action verbs, i.e. **tiniketwe** (*they are given*), **kujuba timphondvo** (*dehorning*), **kuphakula** (*castration*), and **kujutjwa kwemisila** (*docking*). These action verbs are joined in temporal, causal and additive connectives such as **ngesikhatsi** (*when*), **noma** (*or*), **njenge** (*such as*) and **ne-** (*and*).

Some of the information on animal handling is represented in diagrams as in figures 1.12, 1.13, 1.14, 1.15, 1.16, 1.17 and 1.18. At this point, the analysis shall turn to the study of language resources employed in consequential explanations.

4.2.3.2 Linguistic resources representing meaning and meaning relationships

Linguistic resources representing meaning and meaning relationships have been explained in the analyses on reports. The analyses below will follow the same organisation, starting with the ideational metafunction.

4.2.3.2.1 Ideational metafunction

The text in 4.3 exhibits various linguistic resources that realise a wide range of clause types and clause combinations. These clause types create a variety of ideational meanings and logical relations among clauses in the language siSwati, in a consequential explanation text. Consider, first, the segment in lines 7-9, repeated below.

Tilwane tingakudzinga kunakekelwa ngetizatfu letilandzelako: Ngesikhatsi seluhlelo lwetemphilo yetilwane lapho kudzingeka kutsi tiniketwe imitsi, noma ngesikhatsi sekuhlola tifo noma kulimala. (*Animals might need to be handled for the following reasons: During an animal health programme when medication needs to be administered, or when animals are inspected for disease or injury*).

In terms of the logical metafunction, the sentence in lines 7-9 illustrates a variety of clause types and clause combinations, expressing a range of logical relations between its clauses. In addition, the above sentence demonstrates various kinds of processes, participants and circumstances at clause level.

The sentence in line 7-9 consists of a sentential subject **tilwane... landzelako...** (*animals... reasons...*). The verb phrase in this sentence is complex containing the verb in the potential morpheme **tingakudzinga** (*might need*) with an infinitive complement **kunakekelwa** (*to be handled*). The deficient verb **tingakudzinga** realises an additive relation of emphasis to the process of caring for animals. The verb in the verb phrase **kunakekelwa** (*to be handled*) is post-modified by a prepositional phrase **ngetizatfu...** (*for these reasons...*), realising a circumstance of reason to the process of animal handling.

Two dependent clauses occur in **ngesikhatsi seluhlelo...imitsi** (*during the programme... medication*) and in **ngesikhatsi sekuhlola tifo...** (*during disease inspection...*), realising a meaning relationship of time to the preceding independent clause. The second dependent clause **ngesikhatsi sekuhlola tifo...** (*during disease inspection...*) is similar, realising the meaning relationship of time to the event of animal handling. The first dependent clause has a verb phrase with a deficient verb **kutsi** (*to be*), introduced by a deficient verb in an infinitive phrase **kudzingeka** (*it is necessary*),

realising a meaning relationship of emphasis in the following clause **kutsi tiniketwe...** (*to be administered...*). The deficient verb introduces a present tense subjunctive clause **tiniketwe...** (*to be given...*), which is joined with two conjunctions **noma** (*or*), realising the meaning relationship of alternative to an animal health programme. The second clause **ngesikhatsi sekuhlola tifo...** (*during disease inspection...*) also expands with a conjunction **noma** (*or*), realising the meaning relationship of alternative to the preceding phrase.

As regards the experiential metafunction, the verb in the passive clause **kunakekelwa** (*to be handled*) realises a material process, taking an impersonal actor participant. The passive clause realises grammatical metaphor in that it is a nominalization of the verb **nakekela** (*handle*). The goal participant is the head noun **tilwane** (*animals*). The prepositional noun phrase **ngetizatfu...** (*for the reasons...*) is post-modified by the relative predicate **letilandzelako** (*the following*), expressing a relation of attribute to reasons for animal care. In the first independent clause, the noun in the temporal prepositional noun phrase **ngesikhatsi** (*during*) is post-modified by a possessive phrase **seluhlelo** (*of programme*), realising a relation of attribute to time. The possessive phrase is further post-modified by a possessive phrase **lwetemphilo** (*of health*) which is also post-modified by a possessive phrase **yetilwane** (*of animals*), expressing a relation of attribute. The possessive phrase **seluhlelo** (*of programme*) exemplifies grammatical metaphor in that it is a nominalization of the verb **hlela** (*programme*). This is followed by a demonstrative second position **lapho** (*where?*), realising a circumstance of place to the process of administering medicine in the preceding clause. The demonstrative pronoun introduces two deficient verbs **kudzingeka** (*it is necessary*) and **kutsi** (*that*), realising a relation of purpose. The verb in the verb phrase **tiniketwe** (*be given*) is followed by the noun phrase **imitsi** (*medicine*). The verb in the verb phrase **tiniketwe** (*be given*) represents a material process and realises grammatical metaphor as it is nominalized from the verb **niketa** (*give*). It takes an implicit actor participant. The goal participant is realised by the concord AgrS **ti-** (*they*) referring to the pronominal meaning of the noun **tilwane** (*animals*). The second situational dependent clause **ngesikhatsi** (*during*) is post-modified by a possessive phrase **sekuhlola** (*of inspection*), realising a relation of attribute to the process of handling animals. The verb in the possessive phrase **sekuhlola** represents a material process and involves grammatical metaphor as it is a nominalization of the verb **hlola** (*inspect*). The verb takes an impersonal actor participant represented by the prefix **ku-** (*to*). The verb takes a goal participant represented by compound noun phrases **tifo** (*disease*) and **kulimala** (*injury*). The latter goal participant is nominalised and, hence, involves grammatical metaphor. The verb in the infinitive clause **kulimala** (*injury*) realises a material process and also exemplifies grammatical metaphor in that it is a normalization of the verb **limata** (*injure*). The participant experiencer is represented by the impersonal prefix **ku-** (*to*). The

noun phrases **tifo** (*disease*) and **kulimala** (*injury*) are post-modified by a possessive phrase **sekuhlola** (*of inspecting*), expressing an attribute to the time of animal inspection.

Consider, next, the following segment in lines 23-34, repeated here, in terms of the logical and experiential metafunction displayed by the siSwati language system.

Tilwane letinjenge telubisi tidzinga kunakekelwa onkhe malanga kute tikhicite kahle (*Animals like dairy cattle need to be handled on a daily bases for production purposes*).

In regard to the logical metafunction, the sentence in lines 23-24 demonstrates a dominating initiating clause that occurs with an infinitive containing an impersonal passive clause **tilwane... kunakekelwa...** (*animals... to be handled...*) which includes a complement. The complement displays a nominal group **onkhe malanga...kahle** (*everyday... very well*), realising a meaning relationship of time and a circumstance of extent (frequency) to the process of animal handling. In the complement, the noun phrase **malanga** (*days*) takes a conjunction **kute** (*so that*) that conjoins a present tense subjunctive clause **tikhicite...** (*to produce...*).

In terms of the experiential metafunction, the head noun **tilwane** (*animals*) is post-modified by a relative phrase **letinjenge** (*which are like*), containing a conjunction that realises a relation of exemplification to animals that need care. The post-modified head noun **tilwane** (*animals*) is further post-modified by a possessive phrase **telubisi** (*of milk*), realising a relation of attribute of a specific kind of animal. The verb in the verb phrase **tidzinga** (*they need*) represents a mental process taking a participant theme represented by the concord AgrS **ti-** (*they*), referring to the pronominal meaning of the noun **tilwane** (*animals*). The verb in the infinitive clause **kunakekelwa...** (*to be handled...*) containing a passive verb represents a material process, whose actor participant is implicit. The infinitive clause involves grammatical metaphor. The goal participant of the verb in the infinitive clause **kunakekelwa...** is represented by the infinitive prefix **ku-** (*to*), referring to the impersonal agent meaning to the noun **tilwane** (*animals*). This takes a nominal group **onkhe malanga** (*everyday*) which realises a circumstance of extent (frequency) to the process of handling dairy cattle. The noun phrase **malanga** (*day*) is pre-modified by the quantifier **onkhe** (*every*), realising a relation of attribute. The verb in the verb phrase **tikhicite** (*to produce...*) realises a material process. The actor participant is represented by the concord AgrS **ti-** (*they*), referring to the pronominal meaning of the noun **tilwane** (*animals*). The goal participant is in the possessive phrase **telubisi** (*of milk*). The verb phrase **tikhicite** (*to produce...*) is post-modified by an adverb of manner **kahle** (*well*), realising a relation of attribute to the process of milk production.

Consider another segment in lines 33-34, repeated here.

Lamathulusi lasetjentiswa ekunakekeleni tilwane letinkhulu letifana netinkhomo; yintsambo lecinile, sibaya lesicinile, lijoke, emanyeva, kwekuzintila (lokwakha gesi), siswebhu neloli lecinile. (*The tools that are used to handle large animals such as cattle are a strong rope, a strong pen, a head clamp, nose pliers, a prodder (electric stimulation), a whip and a strong truck*).

The sentence in lines 33-34 illustrates a variety of clause types and clause combinations realising the logical metafunction and various resources that realise the experiential metafunction. In terms of the logical metafunction, the sentence consists of a relative projecting clause **lasetjentiswa... tinkhomo...** (*which are used.... cattle...*), occurring with a locative infinitive clause **ekunakekeleni tilwane...** (*in handling animals...*). The projecting clause occurs with a conjunction **njenge** (*such as*), realising a relation of exemplification to big animals. The projected clause is **yintsambo...lecinile** (*a rope... strong*) consists of noun phrases which the latter is joined by a conjunction **ne-** (*and*) and **neloli** (*and a truck*), realising a relation of addition to tools used to handle large animals. The copulative noun phrase **yintsambo** realises a relation of emphasis to the type of rope.

In terms of the experiential metafunction, the head noun **lamathulusi** (*the tools*) is pre-modified by a demonstrative pronoun **la-** (*these*) of first position plural. The head noun in the locative noun phrase **lamathulusi** (*the tools*) is a participant instrument of the process in the relative predicate **lasetjentiswa** (*which are used*) that occurs as a post-modifier. The head noun is further post-modified by a locative infinitive clause **ekunakekeleni...** (*in handling...*). The verb in the relative predicate represents a material process, taking an implied actor participant and a theme participant represented by the concord **la-** (*which*), referring to the noun in the head noun **lamathulusi** (*the tools*). The verb in the locative infinitive clause **ekunakekeleni...** (*in handling...*) represents a material process. The participant benefactor is the noun phrase **tilwane** (*animals*) which is post-modified by an adjectival phrase **letinkhulu** (*large ones*), realising a relation of attribute. In the projected clause, the copulative noun **yintsambo** (*is a rope*) is post-modified by a relative predicate **lecinile** (*a strong one*), realising a relation of attribute to the type of rope. In the same way, the noun phrase **sibaya** (*a pen*) is post-modified by a relative predicate **lesicinile** (*a strong one*), realising a relation of attribute to the type of a pen. One of the noun phrases occurs in a possessive infinitive phrase **kwekuzintila** (*of shocking*), realising a relation of attribute to the purpose of a prodder. The possessive infinitive phrase **kwekuzintila** (*of shocking*) is further post-modified by a relative predicate **lokwakha gesi** (*electric stimulation*), realising a relation of attribute. The noun phrase with an associative conjunction **neloli** (*and a truck*) is post-modified by a relative predicate **lecinile** (*a strong one*), realising a relation of attribute to the noun **intsambo** (*rope*).

This segment involves grammatical metaphor in that the relative predicate **lasetjentiswa** (*which are used*) is used as a post-modifier and yet derived from an infinitive verb **kusebentisa** (*to use*) whose nominalization used the verb **sebentisa** (*use*). The possessive phrase **kwekuzintila** (*of shocking*) also realises grammatical metaphor in that it is derived from the verb **zintila** (*shock*).

In the paragraphs below, other examples will be considered of logical and experiential metafunctions in a consequential explanation, for example, line 38, repeated below,

Tilwane tidzinga kuphatfwa kahle, futsi akukamele ticoshwe. (*Animals need to be handled calmly and should never be chased*).

In terms of the logical metafunction, the sentence in line 38 exhibits two independent relationship clauses. The clause preceding the coordinating conjunction **futsi** (*and*) **tilwane...kahle** (*animals...calmly*) represents the initiating clause. The clause **akukamele... ticoshwe** (*should not... be chased*), following the conjunction represents the expanding clause. The conjunction **futsi** realises the meaning relation of expansion to the process expressed in the initiating clause.

With regard to the experiential metafunction, the clause **tilwane...kahle** (*animals...calmly*) displays a present tense complex verb clause of which the verb in the verb phrase **tidzinga** (*they need*), takes an infinitive complex clause **kuphatfwa** (*to be handled*). The clause demonstrates grammatical metaphor in that it is a nominalization of the verb **phatsa** (*handle*). The verb in the infinitive clause realises a material process of which the verb preceding the clause **tidzinga** denotes obligation. The subject noun phrase **tilwane** (*animals*), taking a complex verb phrase **tidzinga kuphatfwa** (*they need to be handled*) is the theme participant. The adverb **kahle** (*calmly*) realises a circumstance of manner. The independent clause following the conjunction **futsi** (*and*) also displays a complex verb clause **akukamele** (*they should not*). The negative deficient verb phrase **akukamele** takes a subjunctive verb clause **ticoshwe** (*be chased*). The negative deficient verb has an impersonal subject agreement (AgrS). The verb in the verb phrase **ticoshwe** represents the pronoun of class 8, referring to the subject noun **tilwane** in the preceding independent clause. The passive verb phrase **ticoshwe** realises grammatical metaphor in that it is a nominalization of the verb **cosha** (*chase*).

Consider, as a further example, of the ideational metafunction (i.e. experiential and logical metafunction in line 63-64 of the above text.

Uma uhlangana nesilwane kumcoka kusilandzela ngemuva futsi uhambe kancane (*When approaching an animal, it is important to move from behind and very slowly*).

In terms of the logical metafunction, the sentence in line 63-64 exhibits 2 independent clauses joined by conjunction **futsi** (*and*). The independent clause preceding the conjunction represents the initiating clause with the independent clause following the conjunction representing an expanding clause, realising a relation of condition to the process expressed in the initiating clause. The independent clause preceding **futsi** exemplifies the main clause **kumcoka... ngemuva** (*it is important... from behind*) and a dependent clause **uma... nesilwane** (*when... animal*) which realises a relationship of time to the process of meeting.

With regards to the experiential metafunction, the main clause **kumcoka... ngemuva** (*it is important... behind*) displays a complex verb clause **kumcoka kusilandzela** (*it is important to follow*) in which the verb in **kumcoka** takes an infinitival clause complement **kusilandzela** which exemplifies grammatical metaphor in that it is a nominalization of the verb **landzela** (*follow*). The verb in this infinitival complement realises a material process of which the verb of importance is expressed by the verb in the preceding clause **kumcoka** of which the AgrS expresses an impersonal pronoun. Thus, the action participant is implied. The verb in the verb phrase **uhlangana** (*you approach*) in the independent clause realises a material process. The reciprocal verb takes a reciprocal prepositional phrase complement **nesilwane** (*with an animal*). The AgrS in the clause **uhlangana** realises the pronoun of the second person singular **u-** (*you*), which is the active participant of the process of meeting expressed by **kuhlangana**. The noun in the head noun **nesilwane** represents a theme participant. The verb in the infinitival clause **kusilandzela** takes an adjunct complement **ngemuva**, realising a circumstance type of place. In the independent clause, following **futsi**, the verb in the verb phrase **uhamba** realizes a material process. The AgrS **u-** (*you*) in this phrase realizes the pronoun of second person singular. The verb in this verb phrase **uhambe** (*you move*), takes an adverb **kancane**, realizing a circumstance type of manner.

Consider, next, the linguistic resources of clause types and clause combinations in terms of the ideational metafunction that occur in the segment in lines 91-92.

Tinja tona tiba baholi labamangalisako ngoba tilalela inkwele yemelusi (*The dogs react to the handler's whistles and can therefore move these animals very effectively*).

With regard to the logical metafunction, the sentence in lines 91-92 displays clauses of unequal dependency where one is dominant and the other a dependent clause. The dominant present tense indicative clause is **tilalela... yemelusi** (*they react...of handler*) which is introduced by a conjunction **ngoba** (*because*) realising a relation of reason and condition to the event of becoming a

handler. The dependent clause is **Tiba baholi...labamangalisako...** (*they can be handlers...*). The dependent clause consists of a relative clause **labamangalisako...** (*that are amazing*).

In terms of the experiential metafunction the dominant indicative clause **tilalela...** (*they react...*) is post-modified by the noun phrase **inkwele yemelusi** (*the handler's whistles*) and consists of a verb that represents a mental process. The participant sensor is represented by the concord AgrS **ti-** (*they*), referring to the pronominal meaning of the noun **tinja** (*dogs*). The participant phenomenon (*the thing that is perceived*) is the noun **inkwele** (*a whistle*). The noun phrase **inkwele** (*a whistle*) is post-modified by a possessive phrase **yemelusi** (*of a handler*), realising a relation of attribute to the process of whistling and grammatical metaphor as it is a nominalization of the verb **elusa** (*handle*). In the dependent clause, the head noun **tinja** (*dogs*) is post-modified by an emphatic pronoun **tona** (*them*), realising a relation of emphasis to the idea of dogs being handlers. The verb in the deficient verb phrase **tiba** realises a relational (*being*) process whose participant carrier is represented by the concord AgrS **ti-** (*they*) referring to the pronominal meaning of the noun **tinja**. The participant attribute is the noun **baholi** (*handlers*). The verb in the noun phrase **baholi** realises a material process whose participant actor is represented by a subject concord AgrS **ba-** (*they*), referring to an impersonal noun **tinja** (*dogs*). The participant goal is implicit. The noun phrase **baholi** (*handlers*) is post-modified by the relative predicate **labamangalisako** (*that are amazing*), realising a relation of attribute to the type of handlers.

In summary, the consequential explanation text above manifests dependent clauses, subjunctive, infinitive, projecting, indicative and relative clauses. Clause relations involve reason, emphasis, time, alternative, attribute, purpose, exemplification, addition, obligation, accompaniment and condition. The clause relations are realised in conjunctions such as **noma** (*or*), **ne** (*and*), **ngoba** (*because*), **njenge** (*such as*), **uma** (*when*) **kutsi** (*to*), **ne** (*with*) and **ngesikhatsi** (*during*), including the prefix **nga-**, attributes, i.e. **letilandzelako** (*the following*) and the copulative prefixes.

Participants are often realized by subject concords AgrS in the form of infinitive prefixes and the object marker (or concord) AgrO which are realised by noun prefixes of each class. Circumstances are more varied, i.e. those of place **lapho** (*where*), extent **onkhe malanga** (*everyday*) and of manner **kancane** (*slowly*). Grammatical metaphor is common and realised in infinitival passive verb phrases, i.e. **kunakekelwa** (*the handling*), passive verbs, i.e. **ticoshwe** (*they be chased*), possessive noun phrases, i.e. **yemelusi** (*of handler*) possessive infinitival phrases, i.e. **sekuhlola** (*of inspecting*), and in infinitive verbs, i.e. **kulimala** (*injury*).

In the next paragraphs are textual resources illustrated in the classifying report in text 4.3.

4.2.3.2.2 Textual metafunction

The consequential explanation in text 4.3, exhibits a variety of grammatical and lexical cohesive patterns. Consider, first, the segment in lines 1-35, displaying the use of grammatical and lexical cohesion.

Grammatical cohesion is exemplified in patterns of reference, substitution and conjunction. Anaphoric reference is illustrated in lines 2-3, where the AgrS concord of class 8 in the passive verb **tinakwe** (*they be handled*) refers back to the noun **tilwane** (*animals*) and in line 16 where the possessive pronoun **yato** (*their*) which refers back to the same noun. Cataphoric reference is also demonstrated in line 2, where the locative demonstrative pronoun **kuyo** (*to those*) points forward to the noun phrase **yonkhe imihlambi** (*all herds*). Substitution is realised in the use of reference.

Conjunctive relations are employed to conjoin dependent and independent units. In line 9, the conjunction **noma** (*or*) is displayed, realising a meaning relationship of alternative between the dependent clause of time **ngesikhatsi sekuhlola tifo** (*when animals are inspected for disease*) and the nominal **kulimala** (*injury*). In line 10, the conjunction **njenge** (*such as*) realises a meaning of comparison. Additive conjunctions are employed in lines 12 **ne**, 29 **futsi** (*and*), giving more information. In line 23, a conjunction of reason **kute** (*so that*) is used. Further, in line 27, the conjunction **sibonelo** (*for example*) realises the meaning relationship of exemplification.

In terms of lexical cohesion, the segment exhibits patterns of repetition, synonymy, hyponymy and collocation. Repetition is exemplified in lines 1 and 23, in the repetition of the passive verb **kunakekelwa** (*the handling*). Synonymy is displayed in lines 10 and 27 in the possessive infinitive **lwekugadza** (*of management*)/ **tingeluswa** (*can be handled*). In lines 10-11, hyponymy is realised where the relationship of lexical items is one of general description as in **ngesikhatsi seluhlelo loluvamile lwekugadza tilwane** (*during the normal management programme*), with members: **kujuba timphondvo** (*dehorning*), **kubekisa** (*marking*) **kuphakula** (*castration*), and **kujutjwa kwemisila yetilwane** (*docking of animals*). Collocation is exemplified in lines 17 in **sigcinamlandvo** (*generation of data*), line 23 **onkhe malanga** (*daily bases*) and line 27 in **kufuywa kwetilwane** (*handling of animals*). Consider, next, another segment in lines 36-61.

The segment in lines 36-61 demonstrates instances of grammatical and lexical cohesion. With regards to grammatical cohesion, reference, substitution and conjunction are employed. In line 36, anaphoric reference is displayed in the AgrS concord for class 2 the predicate **bakhonile** (*they have been able*), referring back to the noun **bafuyi** (*farmers*). In line 42, the subject concord in **ativani**

(*they are very sensitive*) points back to the noun **tilwane** (*animals*). In line 46, the possessive phrase **bato** (*their*) refers back to the noun in the locative noun **kubelusi** (*for handlers*).

Homophoric reference is illustrated in line 51 where the identity of the item **lilanga likhipha umkhovu etjeni** (*on a very hot day*) whose identity can be retrieved by reference to cultural knowledge rather than the specific context of the text. Substitution is displayed in the use of reference and in negation as in lines 38 **akukamele** (*they should never*) and 48 **tingalimatani** (*they should not hurt each other*).

A further way in which language contributes to the texture of this segment is through conjunction. In lines 38, 48 and 52, conjunctions of addition **futsi** and **na-** (*and*) conjoin clauses. A conjunction of exemplification **njenge** (*for example*) is illustrated in line 42. In line 45, a conjunction of reason **ngoba** (*because*) is demonstrated, giving reasons why care should be given when handling animals. In line 51, a temporal conjunction of time **uma** (*when*), referring to a very hot day.

In terms of lexical cohesion, the segment exhibits relations of repetition, antonymy, and collocation. Repetition is indicated in lines 38, 40, 42, 43, 44, 45 and 46 with the noun **tilwane** (*animals*). In lines 39, 40 and 41 are words with similar meaning **ngeticumbi** (*in groups*)/ **ngemihlambi** (*in a herd*) and **natindzawonye** (*in a group*). An instance of antonymy is indicated in lines 40 **tiyalunga** (*they are calmer*) and 42 **ativani** (*they are very sensitive*) which have opposite meanings.

Collocation is exemplified in line 58, in the use of the modified noun phrase **imijeka lebovu** (*red flags*) of which the noun **imijeka** realises homophoric reference. Consider a further segment in lines 62- 72.

The segment in lines 62-72 exhibits resources of grammatical and lexical cohesion. In terms of grammatical cohesion, the segment demonstrates patterns of reference, substitution and conjunction. Anaphoric reference is illustrated in line 69 where the AgrS concord of class 8 in the passive verb **tilawulwa** (*they are determined*) and the possessive pronoun **sato** (*their*) both refer back to the noun with a possessive noun phrase **timilo tetilwane** (*the behaviour of animals*). Cataphoric reference is displayed in line 65 where **letinnye** (*some*) points forward to the noun **tinhlobo** (*breeds*). Demonstrative reference is realised in line 68, in the use of the demonstrative pronoun second position **lapho** (*where*), pointing outside the text and hence realising exophoric reference. Substitution is indicated in line 65, with the use of negative **atifundziseki** (*cannot be trained*).

Conjunction is another device employed in this segment, such as additive conjunctions in lines 65 and 70, **futsi**, **ne**, and **kanye** (*and*). In line 67, a conjunction of consequence is realised in **ngako-ke**

(*as a result*) and a conjunction of exemplification in line 75 **sibonelo** (*for example*). A temporal conjunction is exemplified in line 63, in the conjunction **uma** (*when*).

With regards to lexical cohesion, the segment illustrates patterns of repetition, synonymy, antonymy and collocation. The noun **silwane** (*animal*) is repeated in lines 62, in the possessive phrase **lesilwane** (*of an animal*), in line 63, in the associate noun **nesilwane** (*with an animal*). Synonymy is illustrated in lines 66 and 67 in nouns with similar meaning, the noun **baholi** (*handlers*) and the noun in the possessive phrase **kwemelusi** (*of handlers*). Antonymy is indicated in line 63, in the verb phrase **uhlangana** (*you approach*): the infinitive verb **kusilandzela** (*to move from behind*). Collocation is exemplified in lines 74 in **yemalanga onkhe** (*regular basis*) and line 75 **tinkhomo telubisi** (*dairy cattle*).

Consider the last segment from text 4.3, in lines 79-93, displaying patterns of cohesion. This segment displays grammatical and lexical cohesive devices. In terms of grammatical resources, the segment demonstrates patterns of reference, substitution and conjunction. In line 81-82, anaphoric reference is displayed where the AgrS concord in the verbal **ucoshe** (*you chase*) refers back to the second person pronoun in **ungacali** (*you should never*). In line 86, the demonstrative reference first position **loku** (*this*) points back to the previous sentence.

Substitution is exemplified through the use of reference and negation as in line 83 in **lokungakabhekeki** (*unpredictably*). Bridging reference is displayed in line 89 by the emphatic pronoun **tona** (*themselves*), referring back to the noun **tinja** (*dogs*). Conjunction is a further way that contributes to the texture, which in this segment are additive conjunctions in lines 79, 81 and 84 **futsi, na-** (*and*), **noma** (*or*) and one conjunction of cause **ngoba** (*because*) in line 89.

With regards to lexical cohesion, the segment displays patterns of repetition, synonymy, antonymy, hyponymy and collocation. The noun **tilwane** (*animals*) is repeated in lines 80, 84 and 86. In lines 88 and 90, synonymy is illustrated in the locative phrase **ekugaleleni** (*in handling*) and the possessive phrase **yemelusi** (*of the handler*). Antonymy is indicated in lines 80 and 86 in the noun **tilwane** and the noun in the possessive phrase **sebantfu** (*of people*). Hyponymy is indicated by the general class **baholi** (*handlers*) in line 89, whose members are **bantfu** (*people*), **tinja** (*dogs*), **emahhashi** (*horses*), and **tidududu** (*motorcycles*), in lines 86, 87, 90. Further, meronymy is displayed where the general class **tilwane** is sub-divided into three types of animals already listed, including **timvu** (*sheep*) and **tinkhomo** (*cattle*). Collocation occurs in line 81 in **newekukhonhotsa kwetinja** (*the barking of dogs*) and **kubhama kwesiswebhu** (*the cracking of a whip*).

The text in has demonstrated both grammatical and lexical cohesive devices. Grammatical cohesion is frequently realised in anaphoric reference, some cases of cataphoric reference, homophoric reference, comparative reference and demonstrative reference. Substitution is also part of grammatical cohesion, which is illustrated in the use of anaphoric reference and the use of pronouns. Lexical cohesion is commonly displayed in the repetition of nouns and verbs; in synonymy with words of similar or related meanings; in antonymy- with words of opposite meanings and some cases of hyponymy and meronymy. Collocation is realised with words that normally go together, including idioms. In the following section, the analysis will be on theme-rheme which involves given and new information.

Theme-rheme

The relation between theme-rheme contributes to the texture of a text and to the focus and flow of information in a text. It has been explained that theme is the starting point of a clause (what the clause is about), the remainder of the clause is the rheme. Consider, theme-rheme relations used to organise reasons in a consequential explanation, displayed below from lines 8-12.

<ul style="list-style-type: none"> • Ngesikhatsi seluhlelo lwetempilo yetilwane lapho kudzingeka kutsi tiniketwe imitsi, noma ngesikhatsi sekuhlola tifo noma kulimala. • Ngesikhatsi seluhlelo loluvamile lwekugadza tilwane njenge kujuba timphondvo, kuphakula nekujutjwa kwemisila yetilwane 	<p><i>During an animal health programme when medication needs to be administered, or when animals are inspected for disease or injury.</i></p> <ul style="list-style-type: none"> • <i>During the normal management programme such as dehorning, marking, castration and docking of animals</i>
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In the examples above, the point of departure is concerned with the most important reason which in line 8 is **Ngesikhatsi seluhlelo lwetempilo yetilwane...** (*when medication needs to be administered...*) and the rest of the sentence is the rheme. Similarly, line 10 continues this pattern **Ngesikhatsi seluhlelo loluvamile lwekugadza tilwane...** (*During the normal management programme...*). These themes are referred to as marked themes of time. This marks a point of departure that places a dependent clause in theme position. Learners need such skilful use of theme position. However, the thematic development is such that each point brings new information. Consider, another segment, displaying theme-rheme in consequential explanations, repeated from lines 45-50.

<p>Kunakekela tilwane kubita kucaphela ngoba tingayibanga ingoti kubelusi bato. Tilwane phela tingakhahlela, tilume phindze tente noma yini lengakabhekeki. Sizatfu lesibalulekile sekujutjwa kwetimphondvo tetilwane kuvikela kutsi tingalimatani, futsi tingamlimati umnakekeli wato. Nakutfutfwa tilwane letifana netinkhomo, kumele kube nebuciko kuze tingeci ngoba loko kungabanga tingoti.</p>	<p><i>Care should be taken when handling animals as they could injure their handlers or other animals. Animals can kick, bite and sometimes behave unpredictably. One of the main reasons that animals are dehorned is to prevent them from hurting one another and their handlers. When animals such as cattle are moved, great care should be taken to prevent a stampede, since this could cause serious injuries.</i></p>
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In the above segment, themes vary, starting with two unmarked themes in lines 45 and 46. In lines 47 and 49, themes displayed are marked in which the latter is of time. The last part of each sentence constitutes the rheme with new information. The themes represent given information.

Themes in consequential explanations are frequently unmarked and express time while there are few unmarked themes. The next paragraph gives an analysis of the language of evaluation in consequential explanations.

4.2.3.2.3 The interpersonal metafunction

It has been explained that the appraisal theory divides attitude into three main categories: affect, judgement and appreciation. The consequential explanation in text 4.3 employs graduation which is the strength of feelings, opinions and judgements that can be raised or lowered. In line 43-44, an adverb is used as a resource of graduation ... **Tilwane letemitsi naletigulako kumele tinakekelwe kahle kakhulu nakunesidzingo lesikhulu.** (*Pregnant or sick animals should be handled very carefully and when absolutely necessary*) or by a graded lexical item in line 50 ... **loko kungabanga tingoti letesabekako** (...*this could cause serious injuries.*) A meaning can also be made more forceful by quantifying, in line 80 **Ngemvamisa, tilwane ativani nemsindvo lomkhulu...** (*In general, animals don't like loud noises...*).

The text also displays varied use of graduation resources in line 36 **Esikhatsini lesinyenti, bafuyi bakhonile kusungula tintfo letingakavami...** (*In many cases, farmers have developed unique apparatus...*).

The consequential explanation text has manifested resources of the ideational metafunction (language for representing our experience and the relationships between aspects of experience); the textual metafunction (language for the forming of coherent and cohesive texts); and the

interpersonal metafunction (language for interaction with others). The following section analyses a procedural recount.

4.2.4 Procedural recount: Kulungiselela luhlelo lwebhizinisi (*Preparing a business plan*)

Text 4.4

<p>1] Uma ngabe Jani uncome kuchubeka nebhizinisi, utawujinge adzinge kucabangisisa ngebhizinisi yakhe aphindze ahlele kutsi itawusebenta njani.</p> <p>5] Onkhe emabhizinisi ayakudzinga kuhlelwa, noma ngabe ungumlimi lodzinga kubolekwa imali noma ngemalunga emmango lafuna kwenta sivumelwano sekupha imali yekusita.</p> <p>Uma ngabe lebhizinisi noma lenhlangano inesifiso 10] sekweboleka imali, kumele loluhlelo lubhalwe phansi.</p>	<p>If Jan decided to go ahead with his business, he would still need to think more carefully about the business and plan how it would operate. All businesses need a business plan, whether you are a farmer wanting to get a loan or a community group wanting to access a grant.</p> <p>If the business or organisation wishes to borrow money, then the plan must be written down.</p>
<p>Yini luhlelo lwebhizinisi?</p> <p>Luhlelo lwebhizinisi ngumningwane lochaza luhlobo lwebhizinisi lolufunekako phindze lubeke ngalokusobala imigomo yayo.</p> <p>15] Luhlelo lwebhizinisi luyachaza kutsi imali itawakhekha njani kanye nemali ledzingekeke yekucala lebhizinisi. Luhlelo lolukahle lwebhizinisi luyatjengisa kutsi itawuhamba kanjani ibhizinisi nekutsi utawenta njani kuze</p> <p>20] kutsi ichubeke sikhatsi lesidze.</p>	<p>What is a business plan?</p> <p>A business plan is a document that describes the business you want to start and says what your goals and objectives are.</p> <p>The business plan also explains how you will make money and what the costs of starting the business will be. A good business plan will show how the business will be run and how you plan to make it sustainable for the future.</p>
<p>Emabhizinisi lamanyenti lalandzela imitsetfo anetakhiwo letifaka ekhatsi lolokulandzelako:</p> <p>Luhlolo jikelele lwebhizinisi.</p> <p>Luhlobo luni lwebhizinisi? Itawuba kuphi? Itawentani lebhizinisi? Yini lekungeke kwentiwe 25] yibhizinisi?</p>	<p>Most formal business plans contain the following information:</p> <p>A general overview of the business.</p> <p>What type of business is it? Where will it be located? What will the business do? What will it not do?</p>
<p>Umniningwane ngetekutsengisa.</p> <p>Ngubani lotawubhadala lomkhicito noma umsebenti? Utawutsengisa ngamalini umkhicito? Ucuzelane ngani? Bantfu balungele kubhadala malini? 30]</p> <p>Utatabisa njani bantfu ngalokutsengisako? Utawudzinga tishi tinsita netisebenti letinjani? Ngalamanye emagama, Ufuna kusebenta kanjani? Utawentanjani kute ibhizinisi ibe sezingeni lelifanele? Utawentanjani kuze umkhicito uhlale 35]</p>	<p>Market information.</p> <p>Who will buy the product or service? How much can you sell? What is the competition? How much will people be prepared to pay? How will you promote your product? What equipment, material and labour will you need? In other words, what is your operating plan? How will you ensure that quality is maintained? How will you produce enough of the product? How will you control stock and numbers?</p>

<p>wenele? Utawulandzelela njani umkhicitio losesitolo nase sigcinatimpahla? Kukhona yini tinsita letitsite lotidzingako? Yini lekufanele ukugcine emabhukwini? Utawubhadalisa njani umsebenti lowentiwe? Utalugcina njani luhla lwetintfo letitsengiwe?</p>	<p>Do you need special facilities? What records do you need to keep? How will you charge for services? How will you invoice?</p>
<p>Lokudzingekako mayelana netisebenti. 40] Utawucasha tisebenti letingakhi? Titawuchamuka kuphi? Kumele tibe naliphi lizinga lemfundvo kanye nemakhono? Titawubika kubani? Utabaholela malini? Yini lekumele bayente lesemtsetfweni?</p>	<p>Details of staff. How many people will you employ? Where will they come from? What qualifications or skills do they need? To whom will they report? How much will you pay them? What legal requirements do they need to take care of?</p>
<p>45] Lokuhambelana netimali. Utawakha malini emnyakeni wekucala? Itawuba ngumalini imali letawuphuma emva kwekutsengisa? Itawuba ngumalini inzuzo? Ngutiphi tindleko letingetulu? Ngumalini lodzingeka ekucaleni ibhizinisi? 50] Ngumalini lovamisa kungena? Utawudzinga kuboleka malini? Utawukhona yini kwakha imali leyenele kutsi ubhadale sikweleti? Kutakutsatsa sikhatsi lesinganani kutsi utfole imali loyicitsile noma kutsi wakhe intalo ebhizinisini.</p>	<p>Financial details. How much will you make in the first year? What will the cost of sales be? What will the gross profit be? What are the overheads? What net profit will you make? What start-up costs are involved? What is the cash flow situation? How much will you need to borrow? Will you make enough to pay back your loan? How long will it take you to break even or make a profit?</p>
<p>55] Hulumende wase KwaZulu-Natali uniketa letinyatselo letilandzelako kutsi tilandzelwe nguloneliphupho lekucala ibhizinisi:</p>	<p>The government of KwaZulu-Natal offers the following step-by-step guide to entrepreneurs to help them draw up a business plan:</p>
<p>Bhala phansi lolofuna kukwenta, ngalamanye emagama, ufuna luphi luhlobo lwebhizinisi.</p>	<p>Write out what you want to do, in other words, what type of business is it to be.</p>
<p>60] Bhala inhloso yekucala lebhizinisi.</p>	<p>Write your purpose in starting this business.</p>
<p>Bhala umbono webhizinisi wesikhatsi lesincane (iminyaka lemitsatfu yekucala), sikhatsi lesisemkhatsini (iminyaka lemitsatfu kuya 65] kulesihlanu) nesikhatsi lesidze (iminyaka lengetulu kwalesihlanu).</p>	<p>Write out your short-term (the first three years), medium-term (three to five years) and long-term (more than five years) vision for the business.</p>
<p>Bhala luhla lwetintfo lotatidzinga kuze ucale ibhizinisi: sibonelo, lihhovisi, kuboleka imali ebhange, ikhumbi, nalokunye.</p>	<p>Write down a list of what resources you know you need to start your business: for example, an office, a bank loan, a kombi, and so on.</p>
<p>Beka ngalokusobala tintfo lote liciniso ngato, 70] sibonelo, ungahle ungabi</p>	<p>Clearly state any uncertainties you may have, for example, you may be uncertain about the type of</p>

neliciniso neluhlobo lwesakhiwo sebhizinisi lotasakha- inkapane noma inhlango.	business structure to create – a company or a close corporation.
Tfola kahle kutsi kungaba bobani batsengi bakho.	Identify who your market might be.
Tfola kahle kutsi bobani lotawucudzelana nabo 75] bese wetama kubati kancono, sibonelo, luhla lwenkhokhelo, luhlobo lwetintfo letentiwako, lokushodako noma lokungentiwa kantsi kuyadzingeka.	Identify who your competitors may be and try to find out as much about them as possible, for example, tariffs, types of service offered possible gaps or weaknesses in their service.
80] Yetama kutfola emabhizinisi lowungasebentisana nawo. Sibonelo, labasebenta ngetekuhamba bangakhona kusebentisana kabanti nalabanake tekuhamba nekuvakasha; bemahhotela noma bematekisi.	Try to identify those businesses with whom you may be able to co-operate. For example, a travel agent would be able to cooperate extensively with tour operators or hotels or taxi services.
85] Faka linani lemali kuleyo naleyontfo lesesinyatselweni sesine bese wakha linani lemali lolilungisile nentsengo yekucala.	Attach a cost to each item in point 4 above and develop your fixed and start-up costs.
Bala kutsi kutawutsatsa tinyanga letingakhi kutsi ibhizinisi yakho ichubeke ingakefiki ezingeni 90] lekutsi imali lengenako ilingane nalephumako.	Work out how many months your business may have to survive before its income equals the expenditure.
Cabangisisa kutsi utayikhangisa njani ibhizinisi yakho (utasatisa njani sive ngemkhicito noma lokwentako) bese uyabala kutsi kutakubita malini 95] lokukhangisa.	Give careful thought on how you will make your business known (how you will market your products or services) and calculate the costs associated with this marketing.
Ungakalahlekelwa yimali lenyenti ngekucwaninga luhlobo lwebhizinisi loluhlosile, kumele utibute kutsi lebhizinisi ingulesebentako yini. Bese uyancuma kutsi lomcondvo wekwenta lebhizinisi 100] ungunwungawulandzelela masinyane yini, noma kufanele uwugucule, noma uwubeke eceleni kwanyalo.	Before you spend too much money exploring the business concept you have, you must draw a conclusion as to whether it is likely to make a viable business. Then you can try to reach a decision about whether your business idea is worth pursuing immediately, or whether it should be changed, or whether it should be shelved for a later time.

4.2.4.1 The generic structure of a procedural recount

Typically, there are two proposed types of procedures, namely an instructing procedure which aims at showing how something is done such as recipes and a procedural recount that records a procedure. For the purpose of this paper, the latter shall be analysed. The procedural recount above, aims at recording a procedure followed in **kulungiselela luhlelo lwebhizinisi** (*preparing a business plan*). Recall that the overall design of procedural recounts has been given, stating that a procedural

recount may display three or four stages. These stages are manifested in the model text above. The first stage depicts the purpose of the procedure.

Purpose/Aim

The aim of the procedural recount is displayed in the heading, **Kulungiselela luhlelo lwebhizinisi** (*Preparing a business plan*) An explanation segment is illustrated in the segment in lines 1-10, concerning things to be considered in starting a business such a planning for a loan or grant and the mode of the plan. This text includes a background stage.

Background stage

In this stage, background information is presented in lines 12-54, relating to what a business is, a general review of a business, market information, detail of staff and financial details. The next stage considers record of events or method.

Record of events

The record of events is exemplified in lines 55-95, listing the actions that happened in the past. These actions are displayed and put in order, starting with writing out what you want to do until how to market your products or services. The next stage is supposed to be on results. However, the writer of this text did not include results. The following stage is the conclusion.

Conclusion

In the segment in lines 95-102, it is concluded that a business person must first be sure if a business is viable before spending too much money. A protocol genre is demonstrated in lines 96-98 in telling what not to do, i.e. spending too much money exploring the business. In lines 98-102, it is stated that a decision has to be made whether a business is worth pursuing or not. This stage is very crucial, that it should be there even if there were no findings. Procedural recounts consist of four stages. Sometimes procedural recounts may include a background stage.

In the next paragraph, language components of procedural recounts will be explored.

4.2.4.1.1 Language components in a procedural recount

Text 4.4 displays language components of procedural recounts and procedures in the siSwati language system. Note that tense changes from one stage to the other. In the purpose/ aim stage, a procedural recount includes a general noun, which in this text is in line 2 in the associate noun

phrase **nebhizinisi** (*a business*). In the same line, a thinking verb in the infinitive present tense, intensive verb phrase **kucabangisisa** (*to think*) is also used in the purpose stage. Past tense action verbs also characterise this stage as displayed in **uncome** (*he decided*).

In the background stage in lines 23-25, questioning has been the dominating device used to provide the reader with options in following the instructions, so that the writer appears reasonable rather than bullying, i.e. **Luhlobo luni lwebhizinisi? Itawuba kuphi? Itawentani lebhizinisi? Yini lekungeke kwentiwe yibhizinisi?** (*What type of business is it? Where will it be located? What will the business do? What will it not do?*) The verbs are in the future tense because this stage is concerned with a future plan.

In the method stage, a procedural recount employs specific noun groups such as in lines 61-62 **webhizinisi weminyaka lemitsatfu yekucala** (*of business for the first three years*). Even at this stage, action verbs are in the present tense and in the form of imperatives such as in lines 69 and 73 **bhala** (*write*) and **tfola** (*identify*). Action verbs are used to represent the processes involved in completing a task. Normally, action verbs come at the beginning of the sentence as demonstrated in line 73 **Tfola kahle kutsi kungaba bobani batsengi bakho.** (*Identify who your market might be.*) They are also stated as imperatives. Sometimes the sentence begins with a time marker which tells us the order of the steps such as in line 96 **Ungakalahlekelwa yimali lenyenti...** (*Before you spend too much money...*). Sometimes the sentence begins with a word, phrase or clause which tells us when to do something as in lines 85-87 **Faka linani lemali kuleyo naleyontfo lesesinyatselweni sesine bese wakha linani lemali lolilungisile nentsengo yekucala.** (*Attach a cost to each item in point 4 above and develop your fixed and start-up costs*). Sometimes the sentence begins with a word, phrase or clause which tells us how to do the step as in lines 66-68 **Bhala luhla lwetintfo lotatidzinga kuze ucale ibhizinisi: sibonelo, lihhovisi, kuboleka imali ebhange, ikhumbi nalokunye.** (*Write down a list of what resources you know you need to start your business: for example, an office, a bank loan, a kombi, and so on*).

The conclusion stage has specific noun groups such as in line 96 **yimali lenyenti** (*too much money*) and action verbs in the passive present tense **ungalahlekelwa** (*before you spend*). In addition, general nouns are used such as in the locative noun in line 99 **lebhizinisi** (*the business*), thinking verbs in the present tense indicative mood **uyancuma** (*you can try to reach a decision*) and an action verb in the past present tense **uwugucule** (*be changed*).

In procedural recounts the present tense is used when it is thought that things are true for all universes. Hence, it is called the universal present tense. Here are more examples, in line 11-13

Luhlelo lwebhizinisi ngumniningwane lochaza luhlobo lwebhizinisi lolufunekako phindze lubeke ngalokusobala imigomo yayo. (*A business plan is a document that describes the business you want to start and says what are your goals and objectives are*).

In procedures, there are dependent clauses which tell us how long we should do an action such as in lines 66-68 **Bhala umbono webhizinisi wesikhatsi lesincane (iminyaka lemitsatfu yekucala), sikhatsi lesisemkhatsini (iminyaka lemitsatfu kuya kulesihlanu) nesikhatsi lesidze (iminyaka lengetulu kwalesihlanu).** (*Write out your short-term (the first three years), medium-term (three to five years) and long-term (more than five years) vision for the business*). Conditional connectives are used to provide a premise upon which a command or statement is based; for example, in lines 1-4 **Uma ngabe Jani uncome kuchubeka nebhizinisi, utawujinge adzinge kucabangisisa ngebhizinisi yakhe aphindze ahlele kutsi itawusebenta njani.** (*If Jan decided to go ahead with his business, he would still need to think more carefully about the business and plan how it would operate*.) Adverbs are often used to qualify verbs and to provide extra information about how a task should be completed; for example, in lines 69-72 **beka ngalokusobala...** (*clearly state...*). Packaging nouns are used in procedural recounts as in line 9 **lenhlangano** (*organisation*) and 26 **umkhicito** (*product*).

Furthermore, the notion of address is a key feature of instructing. The addressee may be referred to either directly or indirectly; for example, in the above example, in line 1 **Jani** (*Jan*) is addressed directly while indirect address is exemplified in line 60 **Bhala inhloso yekucala lebhizinisi.** (*Write your purpose in starting the business*). Modality is used in procedures to lessen or lighten the degree of obligation in completing a task as illustrated in lines 98-102 **Bese uyancuma kutsi lomcondvo wekwenta lebhizinisi ungowungawulandzelela masinyane yini, noma kufanele uwugucule and noma kufanele uwubeke eceleni kwanyalo.** (*Then you can try to reach a decision about whether your business idea is worth pursuing immediately, or whether it should be changed, or whether it should be shelved for a later time*). These are language components displayed in the procedural recount in text 4.3.

The following paragraph shall deal with the organisation of information in procedural recounts.

4.2.4.1.2 The organisation of a procedural recount

Like other genres, procedural recounts follow a particular style of organisation. The organisation of information in text 4.4 illustrates a procedural recount. In a procedural recount, the aim states clearly the purpose of the scientific experiment as seen in the heading of the text. The aim also includes advice about materials or equipment to be used or what to do as demonstrated in lines 1-4

Uma ngabe Jani uncome kuchubeka nebhizinisi, utawujinge adzinge kucabangisisa ngebhizinisi yakhe aphindze ahlele kutsi itawusebenta njani. (*If Jan decided to go ahead with his business, he would still need to think more carefully about the business and plan how it would operate.*) This is written as a sentence with three clauses: Clause 1 is the main clause with the present tense non action verb is **uncome** (*has decided*), a time phrase ... **Uma ngabe Jani uncome kuchubeka**... (*If Jan decided to go ahead...*, Clause 2 demonstrates a thinking verb: ...**kucabangisisa**... (*... to think*). Sometimes procedural recounts include background information which provides any information the reader needs in order to follow the actions properly. This is how a procedural recount is organised.

The record of events reveals what was done in an orderly way using the language components discussed above. It is crucial for results to be stated before the conclusion which reveals what was established.

In the following section, linguistic resources representing meaning and meaning relationships in procedural recounts are discussed.

4.2.4.2 Linguistic resources representing meaning and meaning relationships

In a procedural recount, linguistic resources, representing meaning and meaning relationships are analysed, beginning with the ideational metafunction.

4.2.4.2.1 Ideational metafunction

In terms of the logical metafunction, the procedural recount genre above exhibits a wide range of linguistic resources that realise various clause types and clause combinations, that create particular ideational meanings and logical relations realised by the linguistic resources of siSwati. Consider the following segment in lines 11-13, repeated here.

Luhlelo lwebhizinisi ngumniningwane lochaza luhlobo lwebhizinisi lolufunekako phindze lubeke ngalokusobala imigomo nenhloso yayo. (*A business plan is a document that describes the business you want to start and says what your goals and objectives are*).

With regards to the logical metafunction, the segment in lines 11-13 exhibits clauses of equal dependency. The dominant clause **luhlelo... lolufunekako** (*a plan...that is wanted*) represents the initiating clause. The subjunctive clause **lubeke...yayo** (*it states...are*), introduced by the conjunction **phindze** (*and*), represents the expanding clause and realises the meaning relationship of addition to the process of describing a business that is wanted. The initiating clause contains two

dependent present tense relative clauses **lochaza...** (*that describes...*) and **lolufunekako...** (*that is wanted*). The subjunctive clause **lubeke** contains two noun phrases joined by the conjunction **ne** (*and*), creating the meaning relationship of addition to the process of stating.

In terms of the experiential metafunction, it is worth noting that a participant in a procedure text is the one addressed or the one reading the instructions, hence, is the second person. In the initiating clause, the head noun **luhlelo** is post-modified by a possessive phrase **lwebhizinisi** (*of a business*), creating a relation of attribute to the process of planning for a business. The copulative morpheme **ngu-** (*is*) in the copulative nominal predicate **ngumniningwane...** (*it is a document...*), represents a relational process, creating a relation of emphasis to the noun phrase **luhlelo lwebhizinisi**. The theme participant is realised in the noun phrase **luhlelo** (*plan*), which also realises grammatical metaphor in that, it is a nominalization of the verb **hlela** (*plan*). The copulative noun phrase **ngumniningwane** is post modified by the relative phrase **lochaza** (*that describes...*), which is further post-modified by the noun phrase **luhlobo** (*type*), realising a relation of attribute to the process of describing, expressed in the preceding phrase. The noun phrase **luhlobo** is post-modified by a possessive phrase **lwebhizinisi**, creating a relation of attribute to the type of business and further post-modified by a relative phrase **lolufunekako** (*that which is wanted*), realising grammatical metaphor in a nominalization of the verbs **bhizinisa** (*sell*) and **funa** (*want*). The verb in the relative phrase **lolufunekako** represents a material process. The actor participant is implicit and the goal participant is realized by the subject concord **lu-** (*it*), referring to the pronominal meaning of the noun phrase **luhlobo**.

In the expanding clause, the verb in the subjunctive verb phrase **lubeke** (*it states*) is post-modified by a prepositional relative phrase in the adjunct **ngalokusobala** (*in a clear way*), creating a circumstance of manner to the process of stating. The verb in the verb phrase **lubeke** represents a verbal (meaning) process which takes a theme participant represented by the AgrS **lu-** (*it*) of class 11 singular, realising the pronominal meaning of the noun phrase **luhlelo** (*a plan*). The noun phrase exemplifies grammatical metaphor in that, it is a nominalization of the verb **hlela** (*plan*). The goal participant of the verb in the verb phrase **lubeke** (*it states*) is realised in two compound noun phrases **imigomo** (*goals*) and **inhloso** (*objectives*), further post-modified by the possessive phrase **yayo** (*its*), expressing a relation of attribute to the process of stating. The subjunctive verb phrase **lubeke** realises grammatical metaphor with the nominalization of the verb **beka** (*state*). Similarly,, the compound noun phrases **imigomo** and **inhloso** realise grammatical metaphor in the nominalization of the verbs **goma** (*object*) and **hloso** (*object*) which are synonyms in the Siswati language system.

Consider, next, the segment in lines 50-55, repeated here, in terms of the logical and experiential metafunction displayed by the siSwati language system.

Utawucasha tisebenti letingakhi? Titawuchamuka kuphi? Kumele tibe naliphi lizinga lemfundvo noma emakhono? Titawubika kubani? Utabaholela malini? Yini lekumele bayente lesemtsetfweni? (*How many people will you employ? Where will they come from? What qualifications or skills do they need? To whom will they report? How much will you pay them? What legal requirements do they need to take care of?*)

The segment in lines 50-55 consists of interrogative sentences with single clauses. In this stage of a procedural recount, question words are part of the generic form and language components. These are mostly sentences with an independent or main clause. In terms of tense, the use of the future tense is striking at this stage as it is part of the process of planning. In regard to the logical function, the interrogative sentence in line 51 displays an independent clause **utawucasha tisebenti letingakhi?** (*You will employ how many workers...*).

In terms of the experiential metafunction, the verb in the verb phrase **utawucasha** (*you will employ*) contains a verb in the future tense. The future tense verb denotes a material process. The same verb has an actor participant represented by the AgrS **u-** (*you*), referring to the implicit business owner reading the instructions. The verbal phrase **utawucasha** also has a goal participant represented by the noun phrase **tisebenti** (*workers*) which is post-modified by the relative phrase **letingakhi?** (*how many?*), relating to the number (numerals) of workers.

The interrogative sentence in line 52 illustrates a single independent future tense verb clause **titawuchamuka kuphi?** (*they will come from where...*). In terms of the experiential metafunction, the verb in the future tense verb phrase **titawuchamuka** (*they will come*) realises the material process with an actor participant realised by the AgrS **ti-** (*they*), referring to the pronominal meaning of the noun **tisebenti** (*worker*). The sentence realises the circumstance type of place, expressed in the question word **kuphi?** (*where?*).

The interrogative sentence in lines 52-53 exemplifies an independent clause introduced by a deficient verb **kumele...** (*it should...*), representing a verbal (communicative) process of obligation. The prefix **ku-** (*it*) represents an impersonal AgrS, referring to the pronominal meaning related to the noun **tisebenti** (*workers*). The subjunctive independent clause **tibe...** (*they have...*) takes two joined noun phrases **lizinga** (*qualification*) and **emakhono** (*skills*). The conjunction **noma** (*or*) realises the logical meaning relationship of alternative to the preceding phrase.

With regards to the experiential metafunction, the noun phrase **lizinga** (*qualification*) is pre-modified by an interrogative word **naliphi** (*with which*), occurring with an associate predicate **na-** (*with*), expressing a relation of accompaniment to workers. This is post-modified by a possessive phrase **lemfundvo** (*of education*), expressing a relation of attribute to the quality of workers and realising grammatical metaphor in that it is a nominalization of the verb **fundza** (*learn*). The deficient subjunctive verb phrase **tibe** (*they have*), realises a relational (having) process. The participant possessor is expressed by the concord AgrS **ti-** (*they*), referring to the pronominal meaning of the noun **tisebenti** (*workers*). The possessed participants are realised in the noun phrases **lizinga lemfundvo** (*quality of education*) and **emakhono** (*skills*).

In terms of the logical metafunction, the interrogative sentence in line 53-54 consists of an independent clause **titawubika kubani?** (*they will report to whom?*). The verb in the future tense verb phrase **titawubika** (*they will report*) realises a verbal (communicative) process and exemplifies grammatical metaphor it is nominalized from the verb **bika** (*report*). The participant sayer of the verb **bika** (*report*) is represented by the AgrS **ti-** (*they*) representing the pronominal meaning of the noun **tisebenti** (*workers*). The participant addressee is realised by the AgrS **ku-** (*to*) in the question word **kubani?** (*to whom?*). The locative phrase **kubani?** (*to whom*) realises the circumstance of place to the process of reporting expressed in the preceding clause.

The interrogative sentence in lines 53-54 consists of a single independent clause **utatiholela malini?** (*you will pay them how much?*). In terms of the experiential metafunction, the verb in the verb phrase **utatiholela** (*you will pay them*) realises the material process. The actor participant is realised by the AgrS **u-** (*you*), representing the pronominal meaning referring to the second person pronoun **wena** (*you*). The recipient participant is represented by the AgrO **ti-** (*them*), referring to the pronominal meaning of the noun **tisebenti** (*worker*). The independent clause **utatiholela...** (*you will pay them...*) is post-modified by the interrogative noun phrase **malini** (*how much*).

The interrogative sentence in line 49-50 displays an independent dominant clause **Yini lekumele tiyente lesemtsetfweni?** (*What should they do that is legal?*), which is introduced by a deficient verb **lekumele** (*that should*), realising the meaning relationship to the independent clause **lekumele tinyente...** (*that they should do?*), contains a verb with an obligation to the process of doing something legal.

In terms of the experiential metafunction phrase **tinyente** (*they do*). The verb realises the material process, taking a participant actor represented by the concord AgrS **ti-** (*they*), referring to the pronominal meaning of the noun **tisebenti** (*workers*). The goal participant is represented by the

question word **yini?** (*what?*), and is post-modified by a locative noun phrase **lesemtsetfweni** (*that which is legal*), realising a circumstance of place, relating to the process of doing something legal.

In the following paragraphs, other segments from the procedural recount will be considered in relation to the logical and experiential metafunctions. The following segment is taken from the stage of instructions. It is important to recall that sentences here are not mainly interrogatives, but in the form of commands or imperatives. There is also a shift in terms of tense, from future to present tense because in procedural recounts the present tense is used when things are thought to be always true for everyone.

Consider, as a further example, of the ideational metafunction (i.e. logical and experiential metafunction) of the segment in lines 66-68 of the above text.

Bhala luhla lwetintfo lotatidzinga kuze ucale ibhizinisi: sibonelo, lihhovisi, kuboleka imali ebhange, ikhumbi, nalokunye. (*Write down a list of what resources you know you need to start your business: for example, an office, a bank loan, a kombi, and so on*).

The segment in lines 66-68 displays an unequal dependency relationship among its clauses. The dominant initiating clause is realised by the imperative present tense verb **bhala...ibhizinisi...** (*write... business...*). This dominant clause, representing the initiating clause contains a subjunctive clause **ucale...** (*you start...*), introduced by the conjunction **kuze** (*in order to*), realising the meaning relationship of purpose to the process of starting a business. The expanding clause is introduced by a conjunction **sibonelo** (*for example*), realising the meaning relationship of exemplification to the process of writing. This conjunction introduces three noun phrases: **lihhovisi** (*an office*), **imali lebolekwe ebhange** (*money borrowed from the bank*) and **ikhumbi** (*a kombi*), in which the conjunction **na** (*and*) conjoins an additional word **lokunye** (*other things*), realising the meaning relationship of comparison to the list of resources.

With regards to the experiential metafunction, the verb in the present tense imperative mood **bhala** (*write*) represents a material process and is post-modified by a locative phrase **phansi** (*down*), realising a relation of attribute and a circumstance of place to the process of writing. The actor participant of the verb **bhala** (*write*) is the second person, while the goal participant is realised in the noun phrase **luhla** (*a list*) which is post-modified by a possessive phrase **lwetintfo** (*of things*). The noun in this possessive phrase is post-modified by a relative predicate **lotatidzinga** (*which you will need*), both expressing a relation of attribute to things needed. The verb in the verb phrase **ucale** (*you start*) represents the material process whose actor participant is realised by the AgrS **u-** (*you*), representing the pronominal meaning, referring to the second person **wena** (*you*). This verb

takes a goal participant **ibhizinisi** (*the business*). The prepositional phrase **ebhange** (*at the bank*) realises the circumstance of place and is also pre-modified by the relative **lebolekwe** (*which is borrowed*), expressing a relation of attribute to the noun phrase **imali** (*money*). The verb in the verb phrase **lebolekwe** (*which is borrowed*), realises the material process and takes an implicit actor participant. The goal participant is represented by the concord **le** (*which?*), referring to the noun phrase **imali** (*money*).

Consider next, the linguistic resources of clause types and clause combinations in terms of the ideational metafunction that occurs in the segment in lines 74-78, repeated here.

Tfola kahle kutsi bobani lotawucudzelana nabo bese wetama kubati kancono, sibonelo, luhla lwenkhokhelo, luhlobo lwetintfo letentiwako, lokushodako noma lokungentiwa kepha kudzingeka. (*Identify who your competitors may be and try to find out as much about them as possible, for example, tariffs, types of service offered possible gaps or weaknesses in their service*).

In terms of the logical metafunction, the segment in line 74-78 exhibits a complex sentence which displays different clauses and realises a wide range of clause combinations. For example, the sentence displays an initiating dominant clause in the present tense imperative mood **tfola...nabo...** (*identify ... with...*). The clause contains a deficient verb **kutsi** (*as to*), realising a meaning relationship of purpose to the process of identifying. The dominant clause consists of a consecutive clause **wetama...** (*you try...*) conjoined by the conjunction **bese** (*and then*), realising the meaning relationship of addition to the process of identifying competitors. The expanding clause is introduced by a conjunction **sibonelo** (*for example*), realising the meaning relationship of exemplification to the process of trying to find out about competitors expressed in the preceding phrase. The conjunction introduces two modified noun phrases **luhla** (*list*) joined by the conjunction **sibonelo** (*for example*) and **luhlobo** (*type*). The expanding clause also includes a relative phrase **lokushodako** (*things that are missing*) followed by a conjunction **noma** (*or*), introducing a negative relative predicate **lokungentiwa** (*which is not done*), expressing a relation of alternative to the process of identifying gaps. The expanding clause further incorporates another conjunction **kepha** (*although*) which joins an infinitive predicate **kudzingeka** (*which is necessary*), denoting a logical meaning relationship of concession to things that are not done.

In terms of the experiential metafunction of linguistic resources in a siSwati procedural recount, the verb in the imperative mood **tfola** (*identify*) represents a material process. It is post-modified by an adverb of manner **kahle** (*very well*), expressing a relation of attribute to the process of identifying. The participant actor is the second person while the participant goal is realised by the question word

bobani (*who*), post-modified by a relative predicate **lotawucudzelana** (*those you will compete with*), expressing a relation of attribute. The participant actor is further post-modified by an associate predicate **nabo** (*with*), expressing a relation of accompaniment between a business person and other business owners. The verbs in the consecutive of actions **wetama** (*you try*) with an infinitive **kubati** (*to know*) represent the mental process. The first verb takes an actor participant represented by the concord **we-** (*you*) and a goal participant in the relative predicate **lotawucudzelana**. The goal participant contains a future tense verb which realises the material process. The verb takes two actor participants, which one of them is represented by the concord **lo-** (*whom*), referring to competitors. The second verb is in the infinitive **kubati** (*to know them*) and the verb in this infinitive realises a material process. The verb in the infinitive **kubati** is post-modified by an adverb **kancono** (*in a better way*), expressing a relation of attribute to the process of knowing. The noun phrase **luhla** (*a list*) is post-modified by the possessive noun phrase **lwenkhokhelo** (*of payments*), expressing a relation of attribute. The noun phrase **luhlobo** (*type*) is also post-modified by a possessive noun phrase **lwetintfo** (*of things*) and further post-modified by three relatives **letentiwako** (*those which are done*), **lokushodako** (*those which are missing*) and **lokungentiwa** (*that which is not done*), all expressing the relationship of attribute to the process of identifying. These post-modified noun phrases and relative predicates are followed by a clause in the infinitive predicate **kudzingeka** (*it is necessary*). The verb in this infinitive predicate represents a mental process, taking an implicit participant actor and a goal participant represented by the infinitive prefix **ku-** (*it*), referring to things that are not done. This realises a circumstance of matter.

Consider, next, the segment in lines 87-89 repeated below.

Bala kutsi kutawutsatsa tinyanga letingakhi kutsi ibhizinisi yakho ichubeke ingakefiki ezingeni lekutsi imali lengenako ilingane nalephumako. (*Work out how many months your business may have to survive before its income equals the expenditure*).

In terms of the logical metafunction, the sentence in lines 87-89 demonstrates unequal dependency among its clauses. The dominant clause, which is the initiating clause, is represented by the verb in the imperative mood **bala...letingakhi** (*calculate...how many months*). The dependent clause consists of other clauses. The first one is an infinitive clause in the verb phrase **kutawutsatsa** (*it will take*) which is introduced by a deficient verb **kutsi...** (*as to...*), realising a relation of result to the process of calculating. The initiating clause also contains a verb in the subjunctive mood **ichubeke...** (*it continues...*), which is also introduced by a deficient verb **kutsi...** (*as to...*), realising the meaning relationship of result to the process of continuation. The negative situative deficient verb **ingakefiki** (*before it reaches*) introduces the dependent expanding clause, realising a

meaning relationship of emphasis to the process of getting money. The conjunction in the deficient verb **ingakefiki** realises a meaning relationship of time. The head noun **imali** (*money*) is post-modified by two relative clauses **lengenako** (*income...*) and **nalephumako...** (*expenditure...*), realising relations of attribute to the noun **imali** (*money*). The verbs in the relative clauses **lengenako** and **nalengenako** represent an abstract material process. These relative clauses are combined by the conjunction **na-** (*and*), realising the meaning relationship of addition to the preceding phrase.

In regard to the experiential metafunction, the verb in the imperative mood **bala** (*calculate*) represents a material process. The verb takes a second person participant actor and a goal participant is the noun phrase **tinyanga** (*months*), post-modified by the relative **letingakhi** (*how many*), expressing a relation of attribute to the process of calculating. The verb in the future tense infinitive predicate **kutawutsatsa...** (*it will take...*) realises a material process, taking a theme participant realised by the impersonal infinitive prefix **ku-** (*it*). This is followed by a noun phrase **tinyanga** (*months*), which is post-modified by the interrogative **letingakhi** (*how many*). The noun phrase **ibhizinisi** (*the business*) introduced by the second deficient verb **kutsi...** (*as to...*) is post-modified by a possessive phrase **yakho** (*yours*), realising the circumstance of place to the business process. The verb in the verb phrase **ichubeke** (*it continues*) represents an existential process with a theme participant represented by the AgrS **i-** (*it*), referring to the pronominal meaning of the head noun **ibhizinisi** (*the business*). The verb in the negative situative verb phrase **ingakefiki** (*before it reaches*) realises a material process. The theme participant is represented by the AgrS **i-** (*it*), referring to the pronominal meaning of the head noun **ibhizinisi** (*the business*). The other noun phrase **imali** (*money*) introduced by the third deficient verb is post-modified by two relative predicates **lengenako** (*income*) and **lephumako** (*expenditure*), expressing the relation of attribute to money involved in the business.

The following segment in lines 94-96 repeated here, illustrates a range of properties in terms of the logical and experiential metafunction of the siSwati linguistic resources.

Ungakalahlekelwa yimali lenyenti ngekucwaninga luhlobo lwebhizinisi loluhlosile, kumele utibute kutsi lebhizinisi ingulesebentako yini. (*Before you spend too much money exploring the business concept you have, you must draw a conclusion as to whether it is likely to make a viable business*).

In terms of the logical metafunction, the sentence in lines 94-96 displays various clause types and clause combinations of dependent and independent clauses, including resources of representing

experience. The independent clause consists of a deficient complex clause introduced by a deficient verb **kumele utibute...yini** (*you must ask yourself...what*). It takes a complement clause **lebhizinisi...** (*the business...*) introduced by a conjunction **kutsi** (*if*), realising a logical relationship of condition to the process of asking in the preceding clause. The complement clause contains a nominal predicate with a relative clause **lebhizinisi ingulesebentako yini** (*is the business viable*). The question word **yini** (*is*) is a sentential conjunction giving a meaning of not spending too much money in business exploration. The independent clause is preceded by a dependent clause **ungakalahlekelwa...loluhlosile...** (*before you spend... the one you aim at...*), realising the meaning relationship of time. This independent clause contains a further independent clause **ngekucwaninga...** (*in exploring...*), including an infinitive verb phrase.

As regard to the experiential metafunction, the independent clause **kumele utibute...** (*you must ask yourself...*) realises an obligation process. The actor participant is represented by AgrS **u-** (*you*), referring to the subject concord of second person singular. The complement clause **kutsi lebhizinisi...** (*if the business...*) contains a verb phrase with a nominal predicate and a relative clause. The theme participant is **lebhizinisi...** (*the business...*) which is pre- modified by a demonstrative first position **le-** (*the*). In the dependent clause the verb in the negative passive situative clause **ungakalahlekelwa...** (*before you spend...*) represents a material process and exemplifies grammatical metaphor in that, it is a nominalization of the verb **lahleka** (*get lost*). The participant actor is represented by the AgrS **u-** (*you*) second person singular. The goal participant is in the copulative noun **yimali** (*money*), expressing the relation of emphasis to the act of losing. This copulative noun phrase is post-modified by a possessive phrase, realising a relation of attribute. The verb in the verb phrase **ungakalahlekelwa** (*before you waste*) takes a further infinitive clause **ngekucwaninga...** (*in exploring...*) with a preposition **nge-** (*by*), realising a relation of aboutness to the event of not losing money. The verb in the verb phrase **ngekucwaninga...** (*in exploring...*) realises a verbal (communication) process. The prepositional phrase realises a circumstance of aboutness/ manner. The goal participant of the verb in the verb phrase **ngekucwaninga...** (*in exploring...*) is **luhlobo** (*type*). The prepositional verb phrase realises grammatical metaphor in that, it is a nominalization of the verb **cwaninga** (*explore*). The goal participant is in the possessive phrase **lwebhizinisi** (*of the business*). The noun phrase **luhlobo** is post-modified by a possessive phrase **lwebhizinisi** (*of the business*) and a relative phrase **loluhlosile** (*which you want*), expressing a relation of attribute to the business on target.

The verb in the verb phrase **loluhlosile** (*which you want*) realises a material process and the actor participant of the verb is realised by the relative AgrS **lo-** (*which*) of the second person singular. In the dominant clause, the verb in the subjunctive mood **utibute** (*you ask yourself*) represents a verbal

process. The actor participant is represented by the AgrS **u-** (*you*), referring to the subject agreement of second person singular. The participant addressee is represented by the AgrS **ti-** (*yourself*), referring to the reflex pronoun of second person singular. The deficient verb **kutsi** (*if*), realises the circumstance of result, followed by a locative noun **lebhizinisi** (*the business*), post-modified by the copulative relative verb phrase **ingulesebentako** (*it is one that works*). This takes an interrogative question **yini** (*does it*). The verb in the copulative verb phrase **ingulesebentako**, containing a relative phrase realises an abstract material process. The theme participant is realised in the subject concord **i-** (*it*), referring to the pronominal meaning of the noun phrase in the locative noun phrase **lebhizinisi**.

In summary, in terms of the logical relationships between events, the procedural recount displays clauses of unequal and equal dependency, i.e. subjunctive, consecutive and infinitive clauses. A single clause consists of an independent clause. In the planning stage, clauses are in the form of interrogatives. In clause combinations, the procedural recount has manifested a wide variety of meaning relationships: of addition **phindze** (*and also*); condition, accompaniment, comparison, purpose **kuze** (*in order to*), obligation **kumele** (*you must*), exemplification **sibonelo** (*for example*), and alternative **noma** (*or*), concession **kepha** (*although*), result **kutsi** (*as to*), time **ungakalahlekelwa** (*before you spend*) and emphasis **ingakefiki** (*before it reaches*). In regard to the experiential metafunction, the text uses mainly material processes in the form of imperatives, for example: **utatiholela** (*you will pay them*) and a relational process (of being) **ngumniningwane** (*is a document*); a verbal process **titawubika** (*they will report*); of obligation **kumele** (*you must*) and an existential process **ichubeke** (*it continues*). The processes are in the present and future tense. The participants involved are actor, theme and goal. Most actor participants are represented by the AgrS **u-** (*you*), referring to the second person or the reader. Circumstances are typically of place **kuphi?** (*where?*) and manner **ngalokusobala** (*clearly*), and are realized in prepositional phrases and adverbs. Most noun phrases are post-modified by possessive phrases, i.e. **luhlelo lwebhizinisi...** (*a business plan*). The textual metafunction of a procedural recount is presented in the next section.

Grammatical metaphor is commonly realised in noun phrases, i.e. **luhlelo** (*a plan*), relative phrases, i.e. **lolufunekako** (*that is wanted*), possessive phrases, i.e. **lwebhizinisi** (*of business*), subjunctive clauses, i.e. **lubeke** (*it states*), future tense verb phrases, i.e. **titawubika** (*they will report*), negative passive situative clause **ungakalahlekelwa** (*before you spend*), and in prepositional verb phrases, i.e. **ngekucwaninga** (*in exploring*).

4.2.4.2.2 Textual metafunction

The procedural recount in 5.4 displays a variety of textual resources concerned with the organisation of the surface structure of a text. Consider, first, a segment in lines 1-5, where cohesion is achieved through anaphoric pronominal reference, in the use of **u-** (*he*) and the subject concord **a-** (*he*), refer back to the noun phrase **Jani** (*Jan*). In line 4, **i-** (*it*) in the future tense verb phrase **itawusebenta** (*it would operate*) points back to the noun in the associative noun phrase **nebhizinisi** (*with the business*). Cataphoric reference is exemplified in line 5, where the enumerative pronoun **onkhe** (*all*), points forward to the noun phrase **emabhizinisi** (*businesses*).

The segment also illustrates an example of substitution, where reference is used. In line 2, a verbal substitution is displayed in the use of the past tense mental process in the verb phrase **uncome** (*he decided*). In line 5, the future tense verb phrase **utawujinge** (*he will still*), the present tense indicative verb phrase **ayakudzinga** (*they need*) and the use of the modal verb of obligation **kumele** (*must*), in line 10. The segment also makes use of the coordinating conjunction **noma** (*or*) in lines 7 and 8.

With regards to lexical choices for communicative purposes, examples illustrated here include repetition, synonymy, antonymy and collocation. Repetition occurs with the noun **ibhizinisi** (*business*) in lines 2, 3, 5 and 9, in the associate noun **nebhizinisi** (*with business*), the prepositional phrase **ngebhizinisi** (*about business*), the plural noun phrase **emabhizinisi** (*businesses*) and in the noun phrase **lebhizinisi** (*the business*). The verb in the verb phrase **ahlele** (*he plans*) and in the infinitive verb phrase **kuhlelwa** (*to be planned*). Synonymy is displayed in lines 7 and 9, in the use of **ngemalunga emmango** (*community group*) / **lenhlangano** (*organisation*). Antonymy is illustrated in lines 6 and 8, in the use of **kubolekwa imali** (*to get a loan*): **sekupha imali** (*to access a grant*). Lexical collocation occurs in 10, in **sekwebolekwa imali** (*to borrow money*) and **lubhalwe phansi** (*be written down*).

Another segment in lines 11-50, displays grammatical resources and lexical relationships employed in the text. This segment constitute the planning stage with the dominating use of imperatives and exophoric reference, pointing outside the text through the subject concord pronoun **u-** (*you*), referring to the second person or the reader, i.e. in line 40 **Utawucasha tisebenti letingakhi?** (*How many people will you employ?*) The segment also exemplifies anaphoric reference, realised in pronouns and in subject concords in lines 15, 17 and 28 where the pronoun **i-** (*it*), in the verb phrase **itawakheka** (*it will be made*), refers back to the noun phrase **imali** (*money*). The relative concord in the relative phrase **lolukahle** (*that is good*), refers back to the noun phrase **luhlelo** (*a plan*) and the

subject concord in in verb phrase **balungele** (*be prepared*), points back to the noun phrase **bantfu** (*people*).

The same segment demonstrates substitution in all instances of reference, as seen above. Instances of ellipsis occur in the use of the subject concord **u-** (*you*), referring to the addressed second person. This indicates an indirect way of addressing a person/people, the real name being omitted. Another example is in line 23-24, with the interrogative sentence **Itawuba kuphi?** (*Where will it be located?*). The noun phrase **ibhizinisi** (*the business*) is omitted. The segment displays coordinating conjunctions of extension in lines 12, 16, and 19, which are **phindze, kanye, ne-** (*and*) and of alternative in line 26 **noma** (*or*). Further, a subordinating conjunction of purpose **kuze** (*to*) is also used.

Lexical choices for communication purposes are illustrated in the segment, for example, repetition of the noun phrase **ibhizinisi** (*business*), in line 15 in the possessive phrase **lwebhizinisi** (*of business*) and in **lebhizinisi** (*the business*). The copulative interrogative noun **ngumalini?** (*How much is it?*) is repeated in lines 48, 49 and 50. Synonymy is displayed in line 26 in **lomkhicito** (*product*)/**umsebenti** (*service*). Inclusion relations are exemplified by information on formal business plans in lines 23, 26, 40, and 45: **luhlelo jikelele lwebhizinisi** (*a general overview of the business*), **umniningwane ngetekuysengisa** (*market information.*), **lokudzingekako mayelana netisebenti** (*details of staff*), and **lokuhambelana nemali** (*financial details*). In lines 66-68, hyponymy relations are also displayed, where there is a general item **luhla lwetintfo lotatidzinga kuze ucale ibhizinisi yakho** (*a list of what resources you need to start your business*) and the specific items **lihhovisi** (*an office*), **kuboleka imali ebhange** (*a bank loan*) and **ikhumbi** (*a kombi*). Further, collocation occurs in lines 20, 35, 45 and 68, in the use of **sikhatsi lesidze** (*long time*), **sigcinatimphahla** (*stock control*), **emnyakeni wekucala** (*the first year*) and **kuboleka imali ebhange** (*a bank loan*).

Consider a further segment from the procedural recount in text 4.4. The segment in lines 55-90, also displays a variety of cohesive devices used to weave the surface structure of the text. Anaphoric and cataphoric reference is illustrated in lines 55, 56 and 88, where the subject concord pronoun **u-** (*it*) in the verb-phrase **uniketa** (*it offers*), points back to the noun phrases **Hulumende wase KwaZulu Natali**. The subject pronoun in the verb phrase **tilandzelwe** (*they are followed*) refers back to the class 8 noun **tinyatselo** (*steps*). The relative concord in the relative phrase **letingakhi** (*how many*) refers back to the class 8 noun **tinyanga** (*months*).

Text 4.4 contains instances of substitution, realised in the use of reference and verbal substitution in lines 58, 56, 70, 89, 92 and 82, where the verb in the imperative mood **bhala** (*write*), the verb in the subjunctive mood **tilandzelwe** (*tilandzelwe*), the verb in the negative form **ungabi** (*uncertain*), the negative verb of time **ingakefiki** (*before*), the intensive verb **cabangisisa** (*think carefully*) and the verb of possibility **bangakhona** (*would be able*) are used. Ellipsis relations occur in line 74, in the sentence **Tfola kahle kutsi bobani lotawucudzelana nabo...** (*Identify who your competitors may be ...*). The noun phrase **bosomabhizinisi** (*business people*) is omitted after the associative preposition **nabo** (*with*).

Another device is that of coordinating and subordinating conjunctions. In lines 35, 75, 76, 86 and 87, the coordinating conjunctions addition **bese**, **ne**, and **na** (*and*) are displayed. The conjunction of exemplification **sibonelo** (*for example*) is also realised in lines 75 and 81. Coordinating conjunctions of alternative **noma** (*or*), also appear in lines 71, 84, 93 and 101.

Lexical cohesion is represented in the use of repetition, inclusion, synonymy, antonymy and collocation. Repetition is illustrated in the noun **ibhizinisi** (*business*) in lines 57, 59, 62, 67, 71, 80, 89, 92, 98 and 99. The interrogative word **yini?** (*what?*) is repeated in lines 35 and 36. The interrogative word **njani** (*how*) is also repeated in lines 29, 34, 38, 39 and 92. Also, the noun **imali** (*money*) appear in lines 85, 86, 90, 94 and 96. Inclusion relations are exemplified in lines 66-68 with the information on resources needed to start a business: **lihhovisi** (*office*), **kuboleka imali ebhange** (*a bank loan*) and **ikhumbi** (*a kombi*). Synonymy is displayed in lines 66 and 69, in the imperative verbs **bhala** (*write*)/**beka** (*state*). Antonymy occurs in lines 90-91 in the use of the relative clauses **lengenako** (*income*): **nalephumako** (*expenditure*), in line 74 **lotawucudzelana nabo** (*competitors*): **lowungasebentisana nabo** (*those you may co-operate with*) and line 61 **wesikhatsi lesincane** (*short-time*): **nesikhatsi lesidze** (*long-time*). Relations of collocation are indicated in lines 58, 62, 63, 80 and 55, in **bhalaphansi** (*write out*), **iminyaka lemitsatfu yekucala** (*the first three years*), **sikhatsi lesisemkhatsini** (*medium term*), **linani lemali** (*linani lemali*) and **hulumende wase KwaZulu-Natali** (*the government of KwaZulu-Natali*).

In summary, the procedural recount in text 4.4 has demonstrated a variety of resources for constructing the surface structure of a text. Cohesive devices include reference, which is mostly realised in anaphoric pronominal and concord references. Substitution is indicated by the use of reference. Instances of ellipsis relations are rare. Commonly used conjunctions are those of coordination, although subordinating conjunctions do appear. In terms of lexical choices for communicative purposes, the text makes use of repetition of the topic noun, inclusion, synonymy, antonymy and collocation. In the next paragraph, theme-rheme is analysed in procedural recounts.

Theme-rheme

In procedural recounts, the point of departure (theme) varies throughout the text. In line 1, a marked theme of condition is displayed *Uma ngabe Jani uncome kuchubeka nebhizinisi, utawujinge adzinge kucabangisisa ngebhizinisi yakhe aphindze ahlele kutsi itawusebenta njani.* (*If Jan decided to go ahead with his business, he would still need to think more carefully about the business and plan how it would operate.*)

In lines 15-17, an unmarked topical theme is demonstrated, *Luhlelo lwebhizinisi luyachaza kutsi imali itawakhekha njani kanye nemali ledzinge kako yekucala lebhizinisi.* (*The business plan also explains how you will make money and what the costs of starting the business will be.*) In addition, procedural recounts exhibit unmarked interrogative themes, as in lines 30-35:

<p>Utawudzinga tiphi tinsita netisebenti letinjani? Ngalamanye emagama, Ufuna kusebenta kanjani? Utawentanjani kute ibhizinisi ibe sezingeni lelifanele? Utawentanjani kuze umkhicito uhlale wenele? Utawulandzelela njani umkhicito losesitolo nase sigcinatimpahla?</p>	<p><i>What equipment, material and labour will you need? In other words, what is your operating plan? How will you ensure that quality is maintained? How will you produce enough of the product? How will you control stock and numbers?</i></p>
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In the siSwati translation, interrogative themes frequently occur in the initial position of a sentence and at the end of the sentence. Further, procedural recounts display themes in imperative sentences. Consider the segment in lines 66-72.

<p>Bhala luhla lwetintfo lotatidzinga kuze ucale ibhizinisi: sibonelo, lihhovisi, kuboleka imali ebhange, ikhumbi, nalokunye.</p> <p>Beka ngalokusobala tintfo lote liciniso ngato, sibonelo, ungahle ungabi neliciniso neluhlobo lwesakhiwo sebhizinisi lotasakha- inkapane noma inhlango.</p>	<p><i>Write down a list of what resources you know you need to start your business: for example, an office, a bank loan, a kombi, and so on.</i></p> <p><i>Clearly state any uncertainties you may have, for example, you may be uncertain about the type of business structure to create – a company or a close corporation.</i></p>
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Themes demonstrate given information while rhemes display new information.

4.2.4.2.3 Interpersonal metafunction

Like the consequential explanation in text 4.3 the procedural recount displays resources of graduation realised in an intensifying adverb in lines 69 **Beka ngalokusobala tintfo lote liciniso**

ngato... (*Clearly state any uncertainties you may have...*) and 81-82 **Sibonelo, labasebenta ngetekuhamba bangakhona kusebentisana kabanti nalabanake tekuhamba nekuvakasha...** (*For example, a travel agent would be able to cooperate extensively with tour operators...*) or by emphasizing extent, in lines 61-65 **Bhala umbono webhizinisi wesikhatsi lesincane (iminyaka lemitsatfu yekucala), sikhatsi lesisemkhatsini (iminyaka lemitsatfu kuya kulesihlanu) nesikhatsi lesidze (iminyaka lengetulu kwalesihlanu).** (*Write out your short-term (the first three years), medium-term (three to five years) and long-term (more than five years) vision for the business.* Another graduation resource is illustrated in line 21 **Emabhizinisi lamanyenti lalandzela imitsetfo...** (*Most formal business plans...*)

In summary, the procedural recount has displayed resources of the ideational metafunction, textual metafunction and some resources of the interpersonal metafunction, especially graduation. The text used the second person and third person approach. The next chapter will follow the same pattern of analysis in two argument texts in the field of science.

4.5 CONCLUSION

This concludes chapter four on linguistic resources in informing genres in agricultural science. It has been revealed that the meanings of science differ from those of other disciplines, i.e. English and geography. Science is concerned with the study of natural phenomena which may involve observing, recording, experimenting with, describing or explaining such. It was also noted that reports rarely involve the language of evaluation. The next chapter will focus on two argumentative genres. The procedural recount varies most in the realisation of grammatical metaphor.

CHAPTER FIVE

CONTEXTUAL GENRE-BASED ANALYSIS ON ARGUMENTS IN AGRICULTURAL SCIENCE TEXTS IN SISWATI

5.1. INTRODUCTION

In the previous chapter, the analyses focused on the genre analysis of reports, explanations and procedures while the present chapter will examine the structure and arguments, specifically, discussion and exposition genres. These include genres of evaluating agricultural science texts. Learners, especially those in adolescence, need them to argue about sensitive ethical issues in science. The analyses will follow the same organisation used in chapter four. Each genre will be analysed according to its generic structure, including language components, the organisation of information and linguistic resources that represent meaning, i.e. ideational metafunction, textual metafunction and the interpersonal metafunction.

5.2. GENRE TYPES AND LINGUISTIC RESOURCES IN ARGUMENTATIVE TEXTS IN AGRICULTURAL SCIENCES

In the second chapter it was stated that argumentative texts aim at persuading, and that all persuasive texts incorporate arguments, hence there are three types of arguments. One of them is an exposition whose purpose is to argue for a particular point of view. The second is a discussion which aims at discussing both sides of an argument and the latter is a challenge that challenges another person's point of view. This paper will target on only two genre types, of which the first one is a discussion. A discussion genre in agricultural science involves identifying an issue, and then developing arguments for and against, normally reviewing evidence before offering a conclusion or a recommendation. Evidence is to be offered with respect to each argument and any opinion should be given in light of the evidence. Consider the model text of a discussion in 5.1 below.

5.2.1. Discussion: Kuguculwa kwetakhiwo tetilwane

(Genetic modification of farm animals)

Text 5.1

<p>Inhloso yekugucula takhiwo tetilwane</p> <p>1] Inhloso yekugucula takhiwo temfuyo kutfolala tilwane leti:</p> <ul style="list-style-type: none"> • Khula ngekusheshisa naletiniketa lubisi lolunyenti • 5] Nelubisi lolunemphilo (takhiwo tetinkhomo tiguculwa ngelufuto lwebantfu khona titokhicita lubisi lolunelakitoferini, sicinisa matsambo lesine puroteyini leyakha umtimba, 10] lebalulekile ekukhuleni kwemtfwana. • Nemandla ekukhicita titfo letikhishwa kubantfu. 	<p>Aim of genetic modification of animals</p> <p>The aim of genetic modification of livestock is to produce animals with:</p> <ul style="list-style-type: none"> • Improved growth rates and milk yields • Therapeutic proteins in milk (cows are genetically modified with human genes so that they produce milk that contains lactoferrin, iron- containing protein that is necessary for infant growth) • Potential production of organs for human transplants.
<p>Emasu lasetjentiswa ekuguculeni takhiwo tetilwane</p> <p>Bunjiniyela bekugucula takhiwo tetilwane 15] buvamise kufaka ekhatsi kujova licandza leselivundzile ngemjovo lomncane lohambelana nesakhiwo lesihlosiwe. Lesibhicongo semibungu sibese sitfutselwa esibeletfweni salomake lotasigcina site sibe 20] nekuhlanyeleka kanye nentfuntfuko.</p>	<p>Techniques used to genetically modify animals</p> <p>Most genetic engineering of animals involves microinjection of the desired genes into a fertilised egg or early- stage embryo. The recombinant embryos are then transferred into the uterus of a foster mother to complete their growth and development.</p>
<p>5.3 Buhle nengoti yekugucula takhiwo</p> <p>Kunekuphambana nenkhulumo mphikiswano kubantfu emhlabeni wonkhe jikelele mayelana nekuguculwa kwetakhiwo. Incenye yebantfu ikholelwa ekutseni kuguculwa 25] kwetakhiwo talokuphilako kuyintfo lengasiyo indalo futsi kungaba yingoti ngetindlela letimangalisako. Labanye bakholelwa ekutseni kuguculwa kwetakhiwo kukuchuba indlela lendzala lebeyisetjentiswa 30] yetihlahla lapho khona kukhetsa nekutalisa bekusolo kusebenta kusukela kwacala tekulima. Kuloluhlangotsi, sitawubuka buhle nengoti ye kugucula takhiwo.</p>	<p>5.3 Benefits and Risks of GMOs</p> <p>GMOs cause a lot of controversy and debate between people all around the world. Some people believe that it is unnatural to modify the genes of organisms and that GMOs could be harmful in ways we cannot imagine. Other people believe that genetic modification is just an extension of the traditional plant improvement methods of selection and breeding that we have been using since the beginning of agriculture. In this section, we will look at both the potential benefits and the potential risks of GM crops.</p>

<p>Buhle lobungaletfwa tilimo letinesakhiwo lesiguculiwe</p> <p>35] Tilimo letiguculwe sakhiwo tinentalo phindze tikhucita ngelinani lelisetulu. Tingasisita kukhucita kudla lokunyenti lokungondla sibalo sebantfu lesikhula ngekushesha.</p>	<p>Potential benefits of GM crops</p> <p>GM crops are more productive and have higher yields.</p> <p>They could help us to produce more food to feed the world's rapidly growing population.</p>
<p>40] Tilimo letiguculwe sakhiwo letingahlaselwa lubhubhane netifo tinciphisa sidzingo setifutfo temakhemikhali. Loku kuyinzuzo kumlimi nasesimeni sendzawo.</p>	<p>GM crops that are resistant to pests and diseases reduce the need for chemical sprays. This benefits farmers and the environment.</p>
<p>Tilimo letiguculwe sakhiwo, letingahlangani 45] nemutsi wemacembe tingafutwa ngemutsi wekubulala lukhula ngaphandle kwekukhinyabeteke kwesilimo. Loku kungasinciphisa nesibalo setisebenti letidzingekele.</p>	<p>GM crops that are resistant to herbicides can be sprayed with weed killers without damaging the crop. This could reduce the amount of labour needed.</p>
<p>50] Tilimo letinesakhiwo lesiguculiwe letikhonako kumelana nekubandza, emanti laneluswayi nashukela noma somiso tivumela kutsi tilimo tihlanyelwe etindzaweni lapho betingalungi khona.</p>	<p>GM crops that are tolerant to conditions such as cold, salinity or drought allow crops to be grown in regions where previously they could not survive.</p>
<p>55] Tilimo tesakhiwo lesiguculiwe tiphila sikhatsi lesidze futsi tinetimphawu letikhomba kusebenta kahle emkhicitweni wekudla.</p>	<p>GM crops could have a longer shelf life and better properties for food processing.</p>
<p>Tilimo letiguculwe sakhiwo kumele tibe 60] mmandzi emlonyeni, ngembala, ngekuphatseka nangekuba nemphilo.</p>	<p>GM crops should result in a better flavour, colour, texture and nutritional value.</p>
<p>Tilimo letiguculwe sakhiwo kumele tiletse kudla lokushiphile futsi lokwanele ngenca yebuhle lobubonwa balimi nalabakhucita 65] kudla.</p>	<p>GM crops should result in cheaper and more plentiful food as a result of the advantages to farmers and food processors.</p>
<p>Ingoti lengavetwa tilimo letinesakhiwo lesiguculiwe</p> <p>Bubi betilimo letinesakhiwo lesiguculiwe behlukaniswe ngetigaba letintsatfu, letibitwa ngekutsi; kuvikeleka kwekudla, ingucuko leletfwa simo salokuphatselele</p> <p>70] netenhlalakahle kanye nemnotfo.</p> <ul style="list-style-type: none"> • Kuvikeleka kwekudla. <p>Bantfu bancenekile ngemiphumela yaphoyizini, tintfo letala nemphilo, tingoti tekushintja luhlobo lwekudla</p> <p>75] nemiphumela yesikhatsi lesidze lengavetwa tilimo letinesimo lesiguculiwe. Tilimo letiguculwe sakhiwo kumele tihlolwe</p>	<p>Potential risks of GM crops</p> <p>The disadvantages of GM crops fall into three categories, namely food safety, environmental impact and socio- economic concerns.</p> <ul style="list-style-type: none"> • Food safety. <p>People are concerned about the effects of toxins, allergies, dangers of nutritional changes and unexpected long-term effects of foods made from GM crops.</p> <p>GM crops are subjected to many toxicological tests. Only when they pass all</p>

<p>bophoyizini labanyenti. Uma tiphumelela 80] kuloluhlulo setingatsengiswa emakethe. Ekucatsaniseni, kudla lokungakaphatselani nekuguculwa kwesakhiwo akudzingi kuhlolwa 85] ngaphambi kwekungena emakethe.</p>	<p>these tests are they declared safe and can they be introduced into the market. Non-GM foods, by comparison, do not have to pass any safety tests before they are introduced.</p>
<ul style="list-style-type: none"> • Kugucuka kwesimo. <p>Kunekunceneka lokutsite ngekwandza kwelufuto lolusetilimeni letiguculwe sakhiwo luye kuletinye titjalo. Sibonelo, lufuto 90] lwekungasebentelani nemutsi wetilimo letinemacembe ungasuka etilimeni letiguculwe simo luye kuletinye titjalo, ikakhulu lukhula. Loku kungakha lukhula lolukhulu lolungabulaleki ngemutsi. Lufuto 95] lungahambiseka ngesikhatsi sekuvuvuteleka kwetilimo letehlukene. Kodvwa-ke kuvuvutela lokudibene kwenteka etilimeni letihlobene kuphela. Ngenhlanhla lenhle, tilimo letimcoka njengembila tite 100] lukhula loluhlobene nato. Kepha-ke, tilimo letiguculwe sakhiwo kumele tikanekiswe ngasinye ngasinye. Futsi bantfu batsintsekile ngetilokatane letilusito letingafa uma tidla tilimo letiguculwe sakhiwo 105] naletingahambelani nesilokatane. Solo sidzinga umniningwane wesikhatsi lesidze kuze kuhlolisiswe letinkinga. Emhlabeni wonkhe jikelele kunekuhlolisiswa kwengucuko yesimo kuto tonkhe tilimo 110] letiguculwe sakhiwo. Ngetulu kwaloko, eveni lonkhe, njenga seNingizimu neAfrika, eEurope naseNhla neAmerika tilimo letiguculwe simo tiyalandzelelwa ngemfundvo yesikhatsi lesidze.</p>	<ul style="list-style-type: none"> • Environmental impact. <p>There is considerable concern about the possible spread of genes from GM crops into other wild plants. For example, genes for herbicide-resistance could spread from GM crops to other plants, especially weeds. This could lead to the creation of herbicide-resistance ‘super weeds’ that could not be controlled. Gene transfer could occur during cross-pollination. However, cross-pollination only occurs between closely related plants. Fortunately, major food crops like maize do not have weedy relatives. However, GM crops must be evaluated individually. People are also concerned that beneficial insects as well as pests could be killed when they feed on GM crops that are insect resistant. We still need long-term field data to test the concerns. Environmental impact assessments are carried out on all GM crops worldwide. Furthermore, GM crops are being monitored in long-term studies in places all over the world, including South Africa, Europe and North America.</p>
<ul style="list-style-type: none"> • Kutsintseka eluhlangotsini lwetenhlahlakahle nemnotfo. <p>115] Kunekutsintseka ngekutsi emave latfutuka kancane emhlabeni wonkhe lebekangazusa etilimeni letiguculwe sakhiwo akakhoni kuba nato. Lamave lawa akakhoni kuba netilimo 120] letiguculwe sakhiwo. Ngako-ke kumele akhiphe inkhokhelo yebuciko kute kuvaleke inkhokhelo yekutfutuka kwesilimo lesiguculwe sakhiwo. Futsi kunekwesaba kutsi 125] tinkapani letinkhulu letidibanise emave titawugcina setilawula kukhicitwa kwekudla emaveni lasatfutuka. Loku</p>	<ul style="list-style-type: none"> • Socio- economic concerns. <p>There is a concern that poorer developing countries of the world that could benefit most from GM crops cannot afford them. These countries cannot afford to develop their own GM crops and so have to pay a technology fee to cover the costs of the development of the GM crop. There are also fears that the large multinational companies that develop GM crops will end up controlling food production in developing countries. This is because of the use of so-called ‘terminator’ gene technology, which causes seeds from GM crops to be sterile. This</p>

<p>kubangelwa kusetjentiswa kwebuciko bekucedza 130] lufuto lolubulala imphilo etilimeni letinesakhiwo lesiguculiwe. Loku kusho kutsi balimi baphocelelekile kutsenga inhlanganyelo lensha njalo ngemnyaka, kantsi ngabe 135] bagcina inhlanganyelo yesikhatsi lesitako sekulima. Lokunye, kunekutsintseka ngemihambo yebhizinisi yaletinye tinkapani letinkhulu letikhicita tiphindze 140] titsengise tilimo letinesakhiwo lesiguculiwe. Sibonelo, bantfu labanyenti abajabuli ngesilimo lesesikhona lesingahambelani nemutsi wemacembe lesitsengiswa yinkapani 145] lephindze ikhicite lomutsi wekubulala lukhula. Simo lesinjena, siletsa kusola kutsi lemkapani yenhlanganyelo nguyona letfolo inzuzo esikhundleni semlimi nemtsengi. 150] Kwekugina, bantfu labanyenti abahambisani nekutsi bunjiniyela bekugucula takhiwo tetilimo kubuciko. Beva ngazutsi akukumukeleki kugucula lokudaliwe 155] kutsi kufanane nalokunye. Sibonelo, kusetjentiswa kwelufuto lwetilwane etilimeni kusho lokutsite kulabakholwako nalabadla tibhidvo netitselo kuphela (emavejeteriyeni). 160] Kwamukelekile yini kutsi umuntfu longayidli inyama adle sitjalo lesinelufuto lwenhlanti? Lenzaba lena idzinga kudzingidvwa, 164] kucocwa nekufakwa liso.</p>	<p>means that farmers are forced to buy fresh seed from the supplier each year, instead of keeping some for planting the next season's crop.</p> <p>There are also concerns about the business ethics of some of the large companies that are producing and marketing GM crops.</p> <p>For example, many people are unhappy about a herbicide-resistant crop being developed and marketed by a company.</p> <p>That also manufactures the herbicide. In this case, it raises the suspicion that the seed company, rather than the farmer or consumer, will benefit. Finally, many people are opposed to genetic engineering as a technology. They do not feel that it is acceptable to transfer genes from one species to another.</p> <p>For example, the use of animal genes in plants has implication for religious groups and vegetarians.</p> <p>Is it acceptable for a vegetarian to eat a plant that has a fish gene?</p> <p>These sorts of issue need lots of debate, discussion and careful consideration.</p>
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5.2.1.1. The generic structure of a discussion text

The schematic/generic structure of a discussion was discussed in section 2.4.2.3, where it was mentioned that the purpose of a discussion is to discuss two or more points of view, for example, in the text in 5.1 the discussion is on two sides; people for and people against the genetic modification of animals. Discussion genres are organised in four stages: issue, sides, thesis and resolution. In chapter two, it was mentioned that arguments include background information to help the reader follow up the discussion. Consider how these stages are manifested in the text on 'Genetic Modification of animals', starting with background and the information stage.

Background stage

The background stage is displayed in lines 1-12, in that information is given on aims of genetic modification of animals such as improved growth rates, proteins in milk and potential production of

organs for human transplants. In addition, information is given on techniques used to genetically modify animals such as microinjection of desired genes. In this stage, a segment of exposition is exemplified where the writer reveals that cows are genetically modified with human genes. In the next paragraph is the issue stage.

Issue stage

The issue stage is demonstrated in lines 21-34, stating that there is a controversy and debate between people all over the world, concerning genetic modification of animals. Some people believe that it is unnatural to modify genes of organisms while others believe that it is a traditional method of improving plants. The issue stage is followed by arguments.

Argument stage

Arguments shall be given, starting with one side and then the other side.

Arguments for one side

One side of the argument is based on potential benefits of GM crops, displayed in lines 35-65, concerning **intalo nekukhicita ngelinani lelisetulu** (*higher yields*), resistance to pests, **kuncipha kwetisebenti** (*labour reduction*), and **timelana nebulukhuni** (*tolerance to harsh conditions*), **tiphila sikhatsi lesidze** (*longer shelf life*), **timnandzi emlonyeni** (*better flavour*) and **tishiphile** (*lower costs*). In this argument, a genre segment of explanation is depicted in that all the benefits are explained.

Arguments for the other side

The argument for the other side is exemplified in lines 66-149 where potential risks of GM crops are stated, i.e. **kuvikeleka kwekudla** (*food safety*), **kugucuka kwesimo** (*environmental impact*), and **kutsintseka eluhlangotsini lwetenhlalakahle nemnotfo** (*socio-economic concerns*). On this side of the argument, genre segments of explanation and description are illustrated relating to food safety, environment impact and socio-economic concerns. In dealing with environmental impact in lines 110-114, evidence is given on countries that are monitoring GM crops such as South Africa, Europe and North America. An exposition genre segment is demonstrated in lines 128-131 in that gene technology causes seeds from GM crops to be sterile and the herbicide-resistant crop developed and marketed by a company which also produces and markets herbicides. In this exposition, description is exemplified. Following, is the thesis stage.

Thesis stage

In lines 150-159 the thesis stage is demonstrated in that the writer takes a final decision on the issue, expressing that many people are opposed to genetic engineering as a technology. An explanation genre is exemplified in line 56, referring to the acceptability of gene transfer from one species to another. The last stage of a discussion is the resolution.

Resolution stage

In lines 160-164, the resolution stage is displayed and given as a conclusion, where the writer evaluates the issue and arguments and then gives a recommendation.

So, the generic structure of arguments in the language system of siSwati displays background stage, issue stage, arguments for one side, arguments for the other side, thesis stage and the resolution stage. Moreover, arguments can involve genre segments of explanation, description, exposition and evidence.

The next paragraphs will focus on language components that characterise discussion genres.

5.2.1.1.1 Language components of discussion genres

Recall that discussions are written to persuade, here are examples of the language of persuasion depicted in text 5.1. In discussions, arguments and viewpoints are introduced and sequenced using linking devices such as in line 98, **kodwa-ke...** (*however...*), in 101 **futsi...** (*...also...*) and in 110 **ngetulu kwaloko...** (*furthermore...*). Discussions focus on the topic and organise arguments with topic sentences which here is in line 1 is **kuguculwa kwetakhiwo tetilwane** (*the genetic modification of animals*). These words occur in the topic sentences and frequently occur at the beginning of sentences. In discussions, evidence is explained and described to make the arguments more factual and more powerful, for example, in lines 132-134 **Loku kusho kutsi...** (*this means...*) is an explanation ... **lobubulala imphilo etilimeni letinesakhiwo lesiguculiwe** (*...which causes seed from GM crops to be sterile.*) a description, evidence in lines 141-146 ... **bantfu labanyenti abajabuli ngesilimo lesesikhona lesingahambelani nemutsi wemacembe lesitsengiswa yinkapane lephindze ikhichte lomutsi wekubulala lukhula** (*...many people are unhappy about a herbicide-resistant crop being developed and marketed by a company that also manufactures the herbicide.*)

Technical terms and abstract packaging nouns are explained, i.e. in line 158-159 **nalabadla tibhidvo netitselo** (*vegetarians*) and in 57 **lufuto** (*genes*). These add to the factual quality of the

arguments. The language of cause and effect is shown with words like in line 63 ...**ngenca...** (...as a result...). The language of persuasive writing also judges and evaluates, in lines 124-128...**tinkapani letinkhulu letidibanise emave titawugcina setilawula kukhicitwa kwekudla emaveni lasatfufuka.**(...the large multinational companies that develop GM crops will end up controlling food production in developing countries.) Uses language that assesses degrees of what is probable or usual, in lines 62-65 **tilimo letiguculwe sakhiwo kumele tiletse kudla lokushiphile futsi...** (GM crops should result in cheaper and...).

In discussions, language attributes assessments to expert sources as in lines 136-139

kunekutsintseka ngemihambo yebhizinisi yaletinye tinkapani letinkhulu letikhicita tiphindze titsengise tilimo letinesakhiwo lesiguculiwe. (There are also concerns about the business ethics of some *large companies* that are producing and marketing GM crops.) There is language that appeals to the reader in line 105-107 **solo sidzinga umniningwane wesikhatsi lesidze kuze kuhloliswe letinkinga.** (We still need long-term field data to test the concerns). The personal voice is used to indicate a subjective opinion. Objective language is also exemplified through opinions as in lines 132-136 **loku kusho kutsi balimi baphocelelekile kutsenga inhlangano njalo...** (This means that farmers are forced to buy fresh seed each...).

Text 5.1 above does manifest language components used in discussion genres. In the next section, the analysis will be on how information is organised in discussion genres.

5.2.1.1.2 The organisation of information within discussions

In this paragraph, it shall be explained as to how a writer organises information in discussion genres, with reference to text 5.1. The first paragraph for arguments pursues the matters referred to in the issue, offering a statement in one clause, in lines 21-23 **Kunekuphambana nenkhulumo mphikiswano kubantfu emhlabeni wonkhe jikelele mayelana nekuguculwa kwetakhiwo.** (GMOs cause a lot of controversy and debate between people all around the world), whose meaning is then developed in a clause complex that involves causal clause.

The arguments differ depending on the scientist the writer use, who also detaches himself from the issues by attributing the authority to others while displaying capacity for engagement with others' point of view in lines 23-27 **Incenye yebantfu ikholelwa ekutseni kuguculwa kwetakhiwo talokuphilako kuyintfo lengasiyo indalo futsi kungaba yingoti ngendlela lemangalisako.** (Some people believe that it is unnatural to modify the genes of organisms and that GMOs could be harmful in ways we cannot imagine.) or by alluding to discoveries of others, not identified in lines 27-32 **Labanye bakholelwa ekutseni kuguculwa kwetakhiwo kukuchuba indlela lenzala...**

(Other people believe that genetic modification is just an extension of the traditional plant improvement methods...).

The writer then gives a text preview for the following paragraphs as stated in lines 33-34

Kululuhlangotsi, sitawubuka buhle nengoti ye kugucula takhiwo. *(In this section we will look at both the potential benefits and the potential risks of GM crops.),* this is developed in a series of **buhle lobungaletfwa tilimo letinesakhiwo lesiguculiwe** *(Potential benefits of GM crops)* and then **Ingoti lengavetwa tilimo letinesakhiwo lesiguculiwe** *(Potential risks of GM crops)* which initiates with a section preview in lines 66-70 **bubi betilimo letinesakhiwo lesiguculiwe behlukaniswe ngetigaba letintsatfu, letibitwa ngekutsi kuvikeleka kwekudla, ingucuko leletfwa simo salokuphatselene netenhlalakahle kanye nemnotfo.** *(The disadvantages of GM crops fall into three categories, namely food safety, environmental impact and socio-economic concerns.)*

In the subsequent element outlining arguments against the proposition, the writer starts to personalise the discussion, though giving some authority to his claims by referring to: **futsi bantfu batsintsekile ngetilokatane letilusito...** *(People are also concerned that beneficial insects in lines 102-105 and personalises in lines 105-107 by stating solo sidzinga umningwane wesikhatsi lesidze...* *(we still need long-term field data...)*

This is further elaborated, with some appreciation of the potential risks of GM crops in lines 132-136 **Loku kusho kutsi balimi baphocelelekile kutsenga inhlanyelo lensha njalo ngemnyaka...** *(This means that farmers are forced to buy fresh seed from the supplier each year...).* The grammar gets more intricate as the writer introduces one subjunctive clause and one infinitive clause to develop his case, now suggesting some judgement about the value of more debate in lines 153-155 **Beva ngazutsi akukemukeleki kugucula lokudaliwe kutsi kufanane nalokunye.** *(They do not feel that it is acceptable to transfer genes from one species to another),* clause of reason in lines 156-159 **Sibonelo, kusetjentiswa kwelufuto lwetilwane etilimeni kusho lokutsite kulabakholwako nalabadla tibhidvo netitselo kuphela (emavegeteriyeni).** *(For example, the use of animal genes in plants has an implication for religious groups and vegetarians)* clause of condition.

The writer poses a rhetorical question before the conclusion in lines 160-162 **Kwamukelekile yini kutsi umuntfu longayidli inyama adle sitjalo lesinelufuto lwenhlanti.** *(Is it acceptable for a vegetarian to eat a plant that has a fish gene)?* The conclusion in lines 163-164 states that **Lenzaba lena idzinga kudzingidvwa, kucocwa nekufakwa liso.** *(These sorts of issue need lots*

of debate, discussion and careful consideration). This is the organisation of the discussion genre in 5.1. Following which, are language resources that represents meaning in discussion genres.

5.2.1.2. Linguistic resources representing meaning and meaning relationships in discussion genres

In this section, an analysis of logical and experiential language resources will be discussed, focusing on discussion genres. Even in this chapter, the sentence analysis of the linguistic resources of the siSwati linguistic system will be done in terms of the logical metafunction (i.e. clause types and clause combinations) and the experiential metafunction (i.e. processes, participants and circumstances). Recall that it has been mentioned in the second chapter that the language of discussions is persuasive.

5.2.1.2.1. Ideational metafunction

The above text exhibits a variety of linguistic resources, i.e. choices from the language system which create certain ideational meanings that realise the experience of the author/ writer in terms of the subject content, concerning processes, participants and circumstances. Ideational resources shall be analysed in the following paragraph.

Consider, first, the segment in lines 18-20 repeated here:

Lesibhicongo semibungu sibese sitfutselwa esibeletfweni salomake lotasigcina kute sibe nekuhlanyeleka kanye nentfutfuko.

(The recombinant embryos are then transferred into the uterus of a foster mother to complete their growth and development.)

In terms of the logical metafunction, the sentence in lines 23-27 exhibits a single complex clause, containing other clauses. The dominant clause **lesibhicongo... lotawugcina...** (*the combination...who will keep it...*), represents the initiating clause. . In this dominant clause, the possessive phrase **sembungu** (*of embryo*) and a passive infinitive clause **sitfunyelwa** (*is transferred*) are conjoint by a sequential marker in **sibese** (*it is then*), joining a sequence of actions and, realising a relation of addition to the procedure of genetic modification. In addition, the dominant clause exemplifies a locative phrase **esibeletfweni** (*into the uterus*), realising a circumstance of place where the embryo is transferred. This clause also includes a relative clause **lotasigcina...** (*that will keep it...*), realising a relation of attribute to the noun in a possessive phrase **salomake** (*a foster mother*).The dominant clause expands with a prepositional phrase **umile...**

umbungu (*it is grown...the embryo*) which is conjoint by a coordinating conjunction **kute** (*to*), realising a relation of purpose to the event of embryo transfer. The prepositional phrase contains a deficient verb in the verb phrase **ibe** (*they become*), introducing two associate infinitive noun phrases **nekuhlanyekeka** (*their growth*) and **nentfutfuko** (*and development*), conjoint by a coordinating conjunction **kanye** (*and*), realising a relation of addition to the purpose of transferring.

With regard to the experiential metafunction the, head noun in the dominant clause **lesibhicongo...** (*the combination*) is preceded by an article **le-** (*the*) and post-modified by a possessive phrase **semibungu** (*of embryos*), which represents the theme participants. The possessive phrase **semibungu** (*of embryos*) realises a relation of attribute to the noun in the demonstrative noun phrase **lesibhicongo** (*a combination*) and grammatical metaphor in that, it is a nominalisation of the verb **bhica** (*combine*). The verb in the impersonal passive verb phrase **sitfutselwa** (*is moved*) realises a material process, taking an implicit actor participant. The verb phrase also exemplifies grammatical metaphor as its nominalization originates from the verb **tfutsa** (*move*). The theme participant is represented by the AgrS **si-** (*it*) class 7, referring to the subject concord of the noun **sibhicongo** followed by a locative phrase **esibeletfweni** (*into the uterus*), realising a circumstance of place in relation to the event of transferring mentioned in the preceding clause. The noun in the locative phrase **esibeletfweni** (*into the uterus*) is post-modified by a possessive phrase **salomake** (*of the mother*) and further post-modified by a relative clause **lotasigcina** (*who will keep it*), both creating a relation of attribute to the uterus. Further, the locative phrase **esibeletfweni** realises grammatical metaphor in the nominalization of the verb **beleka** (*give birth*). The future tense verb in the relative clause **lotayigcina** (*who will keep it*) realises an existential process with an actor participant represented by the concord **lo-** (*who*), referring to the concord of the noun in the possessive phrase **salomake** (*of the mother*). The goal participant is represented by the AgrO **yi-** (*them*), referring to the pronominal meaning of the noun **imibungu** (*embryo*). The nouns in the compound associative infinitive **nekuhlanyekeka** (*growth*) and the associative noun phrase **nentfutfuko** (*development*) are examples of grammatical metaphor in that, they are the nominalization of the verbs **hlanyela** (*grow*) and **tfutfuka** (*develop*). The deficient verb in the verb phrase **ibe** (*they become*) realises an existential process.

Consider another segment in lines 24-28 repeated here:

Incenye yebantfu ikholelwa ekutseni kugukulwa kwetakhiwo talokuphilako kuyintfo lengasiyo indalo futsi kugukulwa kwetakhiwo kungaba yingoti ngetindlela letimangalisako.

(Some people believe that it is unnatural to modify the genes of organisms and that GMOs could be harmful in ways we cannot imagine.)

In terms of the logical metafunction of the siSwati linguistic resources, the sentence in line 24-28 exemplifies the occurrence of two independent clauses joined by a coordinating conjunction **futsi... (and)**. The independent clause **incenye... indalo** (*some... organisms*) exhibits a dependant clause introduced by the conjunction **ekutseni... indalo** (*that... organisms*). The independent clause **incenye... indalo** realises an initiating clause. The independent clause **kuguculwa... letimangalisako** (*GMOs... cannot imagine*) following the conjunction **futsi** consists of a single main clause. This clause represents a logical relation of addition to the process realised in the initiating clause.

In terms of the experiential metafunction, the verb in the verb phrase **ikholelwa ... (they believe)** realises a mental process. This verb phrase has a subject **incenye yebantfu** (*some people*), realising the theme participant of the process of believing. The verb in the verb phrase **ikholelwa**, furthermore takes a sentential object clause **ekutseni ... indalo** (*that... organisms*), which realises the theme participant of the verb in the verb phrase **ikholelwa**. The dependant clause introduced by the conjunction **ekutseni (that)** contains a nominal predicate **kuyintfo... (it is something...)**, realising a relational process to the subject phrase of this nominal predicate **kuguculwa kwetakhiwo talokuphilako** (*to modify the genes of organisms*). The head in the subject phrase **incenye ...** is post-modified by a possessive phrase **yebantfu** denoting an attribute to this head noun. The subject of this nominal phrase **kuguculwa kwetakhiwo talokuphilako** exhibits a grammatical metaphor, with the infinitive **kuguculwa**. The verb in this infinitival passive exemplifies grammatical metaphor **kuguculwa** represents a material process. The verb in the infinitive noun involving grammatical metaphor is post-modified by a possessive phrase **kwetakhiwo ...**, realising the theme participant of the verb in **kuguculwa**, which exemplifies grammatical metaphor in that, it is a nominalization of the verb **gucula (modify)**. The head noun in the possessive phrase **kwetakhiwo** is post-modified by a possessive phrase containing an infinitival relative clause **talokuphilako**. The head noun in the nominal predicate **kuyintfo** is post-modified by a relative clause **lengasiyo ... (that is not...)**, displaying a negative nominal predicate. The independent clause following the conjunction **futsi (and)** also consists of a nominal predicate **kungaba yingoti** (*could be harmful*), with a copulative potential verb **nga-** (*could*) in the verb phrase **kungaba**. The nominal predicate **kungaba yingoti** realises a relational process of identification of the noun in **yingoti** to the subject **kuguculwa kwetakhiwo** which is the theme participant. The noun in the copulative predicate **kungaba yingoti** is post-modified by a prepositional phrase **ngetindlela... (in ways...)**, realising a circumstance type of manner. This head

noun in this prepositional phrase **ngetindlela...** is post-modified by a relative clause **letimangalisako** (*that are amazing*)

Consider next, the following segment in lines 37-39, repeated here, in terms of the logical and experiential metafunction demonstrated by the siSwati language system.

Tingasisita kukhicita kudla lokunyenti lokungondla sibalo sebantfu lesikhula ngekushesha.

(They could help us to produce more food to feed the world's rapidly growing population.)

In terms of the logical metafunction, the sentence in lines 37-39, illustrates a single independent clause where the head noun is absent and represented by the AgrS **ti-** (*they*), referring to the pronominal meaning of class 8 **tilimo**. This independent clause consists of an infinitive clause **kukhicita kudla** (*to produce food*), two relative clauses **lokunyenti** (*that is enough*) and **lokungondla... lebantfu** (*that can feed...of people*) and another relative clause **lesikhula** (*that is growing*).

With regards to the experiential metafunction, the present tense verb in the potential mood **tingasisita** (*they could help us*), expresses an attribute of potentiality realising the benefits associated with genetic modification. The verb in the potential verb phrase **tingasisita** represents an abstract material process, taking a theme participant represented by the subject concord AgrS **ti-** (*they*) of class 8, referring to a noun **tilimo** (*crops*). The participant benefactive is represented by the AgrO **si-** (*us*), referring to the pronominal meaning of an absolute pronoun first person plural. The verb in the infinitive clause **kukhicita...** (*to produce...*) represents an abstract material process. The verb takes an implicit participant actor and a goal participant **kudla** (*food*). The noun phrase **kudla** is post-modified by an adjective **lokunyenti** (*which is more*), realising a relation of attribute to food in terms of quantity and is further post-modified by another relative predicate **lokungondla...** (*which can feed...*), realising an attribute of potentiality to the multiplication of food. The verb in the relative clause **lokungondla** realises an abstract material process. The theme participant is represented by the concord **loku-** (*that*), referring to the relative concord of a noun **kudla** (*food*) and the participant benefactor is in the possessive phrase **sebantfu** (*of people*) that post-modifies the noun phrase **sibalo** (*population*), realising a relation of attribute to the number of people. Furthermore, the noun phrase **sibalo** is post-modified by a relative clause **lesikhula...** (*that is growing...*), realising a relation of attribute to population growth, and involves grammatical metaphor. The verb in the relative clause **lesikhula...** represents a behavioural process. The theme participant is represented by the relative concord **lesi** (*that is*), representing a noun of class 7 **sibalo**.

The relative clause **lesikhula...** (*that is growing*) introduces a prepositional phrase **ngekushesha** (*in a fast way*), realising a circumstance of manner to the process of growing.

Consider as a further example of the ideational metafunction i.e. logical and experiential metafunction), the segment in lines 62-65 of the above text.

Tilimo letiguculwe sakhiwo kumele tiletse kudla lokushiphile futsi lokwanele ngenca yebuhle lobubonwa balimi nalabakhicita kudla.

(*GM crops should result in cheaper and more plentiful food as a result of the advantages to farmers and food processors*).

In terms of the logical metafunction of the siSwati language system, the sentence in lines 62-65 consists of one independent clause (main clause) **tilimo...lokwanele** (*crops...that are enough*), including other clauses that appear as post-modifiers of the participants. With regards to the experiential metafunction, in the subject phrase **tilimo... sakhiwo** (*crops...genes*); the head noun **tilimo** (*crops*) is post-modified by a relative passive verb clause **letiguculwe sakhiwo** (*genetically modified*). The verb in this relative passive clause denotes an abstract material process. This verb in the relative passive verb phrase takes an object noun phrase **sakhiwo** (*genes*), which is the theme participant. The main verb in the verb phrase **kumele tiletse** takes an object noun phrase **kudla lokwanele** (*enough food*) of which the head noun **kudla** is post-modified by two coordinate possessive infinitive phrases **lokushiphile** (*cheap*) and **lokwanele** (*enough*). These are conjoint by the coordinate conjunction **futsi** (*also*), realising a relation of addition to benefits expected from GM crops. The verb phrase **kumele** (*should*) denotes obligation to the process represented by the complex verb phrase **tiletse** (*bring*). The noun phrase in the subject position of the verb in the verb phrase **kumele tiletse** (*should result*) is a theme participant and is represented by the pronoun AgrS **ti-** (*they*) of class 8. This complex verb phrase **tiletse** contains a compound object phrase **kudla lokushiphile futsi lokwanele...** (*cheaper and enough food...*), realising a relation of attribute to the noun **kudla** which also occurs as a theme participant of the process must result, realised in the main clause/ independent clause.

The dependent clause is introduced by a subordinating conjunction **ngenca** (*because/as a result*), realising a relation of cause to the use of genetically modified crops. The noun in the possessive phrase **yebuhle** (*of advantages*) is post-modified by a relative clause **lobubonwa** (*that is seen*), realising a relation of attribute to advantages expressed in the preceding clause. The verb in the relative clause **lobubonwa** realises a mental process, taking a participant sensor (one who does mental action) which is the noun **balimi** (*farmers*). The participant phenomenon is represented by

the AgrO **bu-** (*it*) of class 14, referring to the pronominal meaning of the noun **buhle**. The noun **balimi** is post-modified by a relative clause **labakhicita kudla** (*who process food*), realising a relation of attribute to farmers. The verb in the relative clause **labakhicita** represents a material process, taking an actor participant represented by the relative concord **laba-**, referring to the class 2 noun **balimi**. The goal participant is the object noun phrase **kudla**. The independent clause contains two relative clauses **lobubonwa...** (*that is seen...*) and one, occurring with an associate predicate **nalabakhicita...** (*and those who produce*) which are conjoint by a coordinating conjunction **na-** (*and*), realising a relation of addition to those who should benefit from genetically modified crops.

Consider next the linguistic resources of clause types and clause combinations in terms of the ideational metafunction that occur in the segment in lines 71-81.

Uma tiphumelela kuloluhlolo setingatsengiswa emakethe.

(Only when they pass all these tests are they declared safe and can they be introduced into the market.)

With regard to the logical metafunction of the sentence in lines 71-81, in terms of the siSwati language system, the sentence displays two clauses of unequal dependency. The dominant clause is **...setingatsengiswa emakethe** (*...they can then be sold in the market*). The copulative morpheme **nga** (*can*) realises a relation of possibility to the event of selling. The dependent temporal clause **uma tiphumelela kuloluhlolo...** (*when they pass these tests...*) represents a projecting clause. The subordinating conjunction **uma** (*when*) realises a relation of time to the event of selling.

In terms of the experiential metafunction, the verb in the immediate present tense passive verb in the potential mood **setingatsengiswa** (*they can then be sold*), in the dominant clause represents a material process. The actor participant is implicit while the goal participant is represented by the AgrO **ti-** (*they*), referring to the class 8 noun **tilimo** (*crops*). The dominant clause includes a locative phrase **emakethe** (*into the market*), realising a circumstance of place to the event of selling. In the dependent clause, the verb in the present tense verb in the temporal mood **tiphumelela** (*they pass*) represents a mental process and takes a theme participant represented by the subject concord **ti-** (*they*), referring to the pronominal meaning of the noun **tilimo**. The verb phrase in the temporal mood **tiphumelela** demonstrates grammatical metaphor in that, it is a nominalization of the verb **phumelela** (*pass*). The participant phenomenon is in the locative prepositional phrase **kuloluhlolo** (*in these tests*) which realises a circumstance of place for the process of testing and grammatical metaphor through the verb **hlola** (*test*). The noun in this locative prepositional phrase is pre-

modified by a demonstrative pronoun first position **lo-** (this). In siSwati, the noun **luhlolo** takes the same form both in singular and in plural.

Consider next the segment in lines 98-103 below.

Ngenhlanhla lenhle, tilimo letimcoka njengembila tite lukhula loluhlobene nato. Kepha-ke, tilimo letiguculwe sakhiwo kumele tikanekiswe ngasinye ngasinye.

(Fortunately, major food crops like maize do not have weedy relatives. However, GM crops must be evaluated individually).

The segment in lines 98-103 illustrates two sentences which the first one commences with an evaluative adjunct **ngenhlanhla lenhle...** (fortunately...), identifying a positive idea and linking an independent clause **tilimo... nato...** (*crops...with them*). The independent clause contains a relative clause **letimcoka** (that are important), that is linked to a noun phrase **ummbhila** (maize) with a coordinating conjunction **njenge** (like), realising a relation of comparison to crops that do not suffer weeds.

In terms of the experiential metafunction, in the first sentence, the head noun **tilimo** (*crops*) is post-modified by a relative clause **letimcoka** (*that are important*), realising a relation of attribute to the head noun. The noun phrase following the conjunction, introduces a complex verb phrase **tite lukhula** (*they do not have weeds*) which contains a present tense negative verb that denotes a behavioural (physiological) process. This verb phrase takes a theme participant, represented by the AgrS **ti-** (*they*) class 8, referring to the pronominal meaning of the subject noun **tilimo**. The head noun is also post-modified by a noun phrase **njengembila** (*like maize*), denoting an attribute of comparison. The noun in the associate predicate **tite lukhula** is post-modified by a relative clause **loluhlobene nato** (*that is related to them*) of which the verb followed by the prepositional phrase includes a prepositional phrase **nato** (*to them*), realising a relation of association.

Similarly, the second sentence displays one independent clause **tilimo...ngasinye** (*crops...one by one*) and also begins with a sentential adjunct **kepha- ke** (*however*, realising contrast to the information given in the preceding clause).

With regards to the experiential metafunction of the siSwati linguistic system, the head noun **tilimo** (*crops*) is post-modified by a relative clause **tilimo letiguculwe sakhiwo...** (*crops that are genetically modified...*), realising a relation of attribute. The verb in the relative clause **letiguculwe** realises a behavioural (physiological) process, taking a theme participant represented the AgrS **ti-** (*they*) of class 8, representing the noun phrase **tilimo**. The noun phrase **sakhiwo** (*genes*) also occurs

as a theme participant of the passive verb in the relative clause **letiguculwe**. The verb phrase **kumele tikanakiswe** (*they must be evaluated*) realises a material process, taking an implicit actor participant and a theme participant represented by AgrS **ti-** (*they*) of class 8. The deficient verb **kumele** realises an obligation to the process of evaluation. The verb in the verb phrase **tikanekiswe** is post-modified by a reduplicated prepositional phrase **ngasinye ngasinye** (*one by one*), realising a circumstance type of manner to the process of evaluating.

In summary, the logical resources in the above discussion demonstrate single complex clauses, clauses of equal and unequal dependency and projecting clauses. Initiating and expanding clauses often appear. Commonly used verbs are in the present tense, in the subjunctive, infinitive, potential, temporal and relative moods, used in clauses. The combinations of clauses create various clause relations such as addition, cause, time, purpose, attribute, emphasis, obligation, possibility, association, comparison and contrast, representing subordinating and coordinating conjunctions. In terms of the experiential metafunction, processes in siSwati scientific discussion genres are mainly material (abstract), verbal, mental, existential and behavioural. Participants are sometimes non-specific and are often represented by an AgrS or an AgrO while others are implicit and indicated by passive phrases. Common types of participants are carrier, theme, sensor, phenomenon, actor and goal. Circumstances are mainly of place and are realised in prepositional phrases or locative phrases of which some are reduplicated, though other types are found, including manner, matter and time. In the next section, the analysis shall switch over to textual metafunctions.

In discussions, grammatical metaphor is realised in demonstrative noun phrases, i.e. **lesibhicongo** (*the recombinant*), passive verb phrases, i.e. **sifutselwa** (*is transferred*), locative noun phrases, i.e. **esibeletfweni** (*in the uterus*), compound infinitival phrases, i.e. **nekuhlanyeleka** (*and growth*) and **nentfutuko** (*and development*), infinitival passive verb phrases, i.e. **kuguculwa** (*the modification*), verb phrases, i.e. **tiphumelela** (*they pass*), and locative demonstrative phrases, i.e. **kululuhlolo** (*in these tests*).

5.2.1.2.2. Textual metafunction

In chapter four, it has been stated that textual metafunction considers the internal organisation and communicative nature of a text, in consideration of a distant audience. This is achieved through grammatical complexity, coordination (how clauses are conjoined) and the use of nominal groups. The study of communicative distance focuses on text cohesion which refers to the chronological sequencing of information and events in text. Information is sequenced by relationships between sentences and clausal units or the ways in which the surface components of a text hang together in

the siSwati linguistic system, in terms of grammatical choices i.e. reference, substitution, ellipsis and conjunction) and lexical choices of communicative purposes (repetition, inclusion, synonymy, antonymy, hyponymy, meronymy and collocation).

In text 5.1 grammatical and lexical language choices are displayed. The segment in lines 1-20, exhibits a variety of grammatical choices as well as lexical choices for communicative purposes. In line 4, the segment contains instances of pronominal reference realised in the use of anaphoric reference represented by the relative concord **lolu-** (*that is*), pointing backwards to the class 11 noun **lubisi** (*milk*); in line 7, in the subject concord realised in the future tense verb phrase **titokhicita** (*they will produce*) of a noun in class 8, points back to the noun phrase **takhiwo tetinkhomo** (*genes of cows*). In line 16, the relative concord in the relative clause **lomncane** (*that is small*) points back to the noun in the associative noun phrase **ngemjovo** (*with an injection*) where the noun **umjovo** realises grammatical metaphor. In line 19, the AgrO in the future tense relative predicate **lotasigcina** (*who will keep it*) and in the verb phrase **sikhule** (*it grows*), refer back to the class 7 noun in the demonstrative noun phrase **lesibhicongo** (*the recombinant*). This noun also realises grammatical metaphor, in that the noun **sibhicongo** is derived from the verb **bhica** (*combine*). Anaphoric reference indicates given information.

In line 1 the segment makes use of homophoric reference where the item **kuguculwa kwetakhiwo** (*genetic modification*) can be retrieved by reference to the specific context of the text not only by reference to cultural knowledge, indicating new information. Ellipsis is exemplified in lines 1-13, where the infinitive verb-phrase **kutfola tilwane leti:** (*to produce animals with* :) is omitted in the three listed points: **khula...** (*grow...*), **nelubisi...** (*have milk...*) and **nemandla...** (*and potential...*). The use of conjunctions is indicated in lines 20 and 3 in the use of coordinating conjunctions realised in the associative conjunction **ne-** (*with*), of addition **na-** (*and*). Subordinating conjunction is also evident in line 7, in **khona** (*so that*), realising a relation of purpose. Substitution is indicated where referential items are used instead of grammatical items.

In addition, the segment in text 5.1 illustrates lexical choices for communicative purposes, represented through repetition, inclusion, synonymy/ antonymy and collocation. In lines 4, 5 and 7, in the repetition of the noun **lubisi** (*milk*) in the associate noun phrase **nelubisi** (*with milk*) and the repetition of the noun phrase **bantfu** (*human*) in lines 7, in the possessive phrase **lwebantfu** (*of human*) and in the prepositional phrase **kubantfu** (*from human*). The verb **gucula** (*modify*) is repeated in lines 1 and 14, in the infinitive noun phrase **kugucula** (*modification*), and in the prepositional phrase **bekugucula** (*of modifying*). Further, the noun phrase **takhiwo** (*genes*) is repeated in line 17 in the associate noun phrase **nesakhiwo** (*with genes*). Inclusion relations are

indicated in the forms ...**titokhicita lubisi lolunelakitoferini, sicinisa matsambo lesine purofeyini leyakha umtimba, lebalulekile ekukhuleni kwemntfwana.** (...*they will produce milk containing lactoferrin, iron-containing protein that is necessary for infant growth*)

Synonymy is expressed in the use of words or phrases with similar or related meanings as in the possessive noun phrase in lines 1-2 **temfuyo** (*of farming*)/ **tilwane** (*animals*). In line 5, the phrase **nelubisi lolunemphilo** (*therapeutic proteins*) has related meaning with the explanation in (**takhiwo...**) (*genes...*). Further, in lines 15-16 the noun phrase **licandza leselivundzile** (*a fertilised egg*)/ **lesibhicongo semibungu** (*the recombinant of embryos*) have the same meaning. In lines 1 and 13, antonymy is expressed in the noun phrases **temfuyo/tilwane** (*animals*): **kubantfu** (*from human*) that have contrasting meanings. In lines 1, 3, 5, 5-6 and 12-13, collocation relations are indicated in **kugucula takhiwo temfuyo** (*genetic modification of livestock*), **khula ngekusheshisa** (*improved growth rate*), **lubisi lolunemphilo** (*therapeutic proteins*), **lufuto lwebantfu** (*human genes*) and **letikhishwa kubantfu** (*human transplants*), all these words can be used in this combination.

Consider, next, a segment in lines 21-39 of text 5.1 which exhibits grammatical and lexical resources used in the siSwati language system. This segment contains instances of anaphoric demonstrative and comparative references, as well as a variety of lexical choices. A demonstrative connection is displayed in line 30 with **yetihlahla lapho khona** (*of plants where*), where **lapho** (*there*) refers back to **kuchuba indlela lendzala** (*the use of a traditional way*) and the demonstrative first position in the prepositional phrase in line 32, **kuloluhlangotsi** (*in this section*) which does not point backwards but exemplifies endophoric reference (inside the text). Further, in line 29, the infinitive prefix in the infinitive predicate **kuchuba** (*to follow*) points back to the noun phrase **kuguculwa kwetakhiwo** (*genetic modification*). In line 22, the comparative relation **wonkhe** (*all*) points back to the locative noun phrase **emhlabeni** (*in the world*). Cataphoric (pointing forward) reference occurs in line 23, in the use of comparative cohesion indicated by **incenye** (*some*), pointing forward to the class 2 noun in the possessive noun phrase **yebantfu** (*of people*). In line 27, **labanye** (*other*) points forward to a class 2 noun represented by the AgrS **ba-** (*they*). In line 28, pronominal reference is exemplified in the verb phrase **bakholelwa** (*they believe*) which *some* points forward to the noun phrase in the possessive phrase **yebantfu**. In line 33, the subject concord in the future tense verb phrase **sitawubuka** (*we will look*), still indicates pronominal reference, realising an endophoric reference. Homophoric reference is indicated in line 29, in the use of **kuchuba indlela lendzala** (*the use of a traditional method*) as the identity of these words can be retrieved by reference to cultural knowledge.

Another cohesive device displayed is that of substitution which occurs in the use of the subject concord **ba-** (*they*) instead of the noun phrase **bantfu** (*people*). Substitution is further indicated in the use of comparatives, demonstratives and subject concords. This segment specialises on coordinating conjunctive reference realised in lines 24 and 33 **ne** and **futsi** (*and*), expressing addition and the associative conjunction **ne-** (*with*) in line 23, expressing association.

Lexical collocation also occurs in this segment in four forms: repetition, synonymy, antonymy and collocation relations. Forms of repetition are indicated by the infinitive noun phrase **kuguculwa kwetakhiwo** (*genetic modification*) in lines 23, 24-25 and 28 and in 33-34 and the noun phrase **bantfu** (*people*) in line 22, in the prepositional noun phrase **kubantfu** (*between*) and in line 24, in the possessive phrase **yebantfu** (*of people*). In line 29 and 31-32, synonymy is indicated in two noun phrases with related meanings, **indlela lendzala** (*a traditional way*) / **kusukela kwacala tekulima** (*since the beginning of agriculture*) and in the use of comparative pronouns **incenye** (*some*) / **labanye** (*others*) in lines 23 and 27. Further, in line 21, synonymy is indicated in the conjoint noun phrases **kunekuphambana/ nenkhulumo mphikiswano** (*there is a lot of controversy / debate*). Antonymy also occurs in the use of the comparative pronoun **wonkhe** (*all*) and the two other comparatives **incenye and labanye** (*some*). In addition, in line 33, the noun phrase **buhle** (*benefits*) and the noun phrase in the associative noun phrase **nengoti** (*risks*) have contrasting meanings. Collocation is extensive throughout this segment, realised in lines 29 and 33 in **indlela lendzala** (*traditional way*) and in **buhle nengoti** (*advantages and disadvantages*).

Consider a further segment in lines 35-65 that illustrates a variety of cohesive devices and lexical choices of communicative purposes in the siSwati linguistic system. In terms of grammatical choices, the segment displays examples of anaphoric reference, occurring in line 50, in the use of the relative concord in the relative clause **letinesakhiwo** (*that have genes*), referring back to the noun phrase **tilimo** (*crops*), in the whole segment. Similarly, in line 37 the subject concord **ti-** (*they*), points back to the phrase **tilimo tesakhiwo lesiguculiwe** (*GM crops*) in the entire segment. Demonstrative reference is indicated in the first position demonstrative pronoun **loku** (*this*) in line 42, realising endophoric reference and the second person demonstrative **lapho** (*there*) in line 53, pointing outside the text (exophoric reference). In line 52 homophoric reference occurs where the noun phrase **somiso** (*drought*) can be retrieved by reference to cultural knowledge.

Another cohesive device employed is substitution which is illustrated in the use of reference relations discussed above. Instances of conjunctions are illustrated in the use of coordinating conjunctions of addition **phindze/ ne-/na- futsi** (*and*) in lines 36, 48 and 56. In line 56, the

associative conjunction **ne-** (*with*), realising association. In lines 52, 63 a conjunction of alternative **noma** (*or*) and **ngenca** (*as a result*), realising a relation of reason.

With regards to lexical choices of communicative purposes, the segment exhibits repetition, occurring in the phrase **tilimo letinesakhiwo lesiguculiwe** (*GM crops*) in lines 55,59 and 62, the noun phrase **umutsi** (*medicine*) in line 45 in the associative noun **nemutsi** (*with medicine*) and line 46 in the prepositional phrase **ngemutsi** (*with medicine*). In lines 35 and 37, synonym relations are indicated in the noun phrase **kudla / tilimo** (*crops*) and in lines 36 and 38-39 in the prepositional phrase **ngelinani lelisetulu** (*higher yields*) / **lelikhula ngekushesha** (*rapidly growing*) and in lines 41 and 51, in the relative clauses **letingahlaselwa** (*that are resistant*) / **letikhonako kumelana** (*that are tolerant*). Relations of opposite meaning occur in lines 38 and 41 in the use of the verbs in the relative predicate **lelikhula** (*that grows*) and the verb phrase **tinciphisa** (*they reduce*) and in lines 44 and 51, in the relative clause **letingahlangani** (*that are resistant*) and **letikhonako kumelana** (*that are tolerant*). In lines 51 and 52 in the infinitive nominal in the associative infinitive noun **nekubandza** (*with cold*) and the noun phrase **somiso** (*drought*) and in line 52, in the noun phrase in the relative associative clause **laneluswayi** (*with salt*) and the conjoint noun phrase **nashukela** (*and sugar*). In lines 59-61, inclusion is found in **tilimo letiguculwe sakhiwo kumele tibe mmandzi emlonyeni, ngembala, ngekuphatseka nangekuba nemphilo**. (*GM crops should result in a better flavour, colour, texture and nutritional value.*)

Moreover, collocation is also a predominantly used lexical choice in this segment, in line 38 i.e. in the noun phrase **sibalo lebantfu** which in English occurs in one word (*population*), 43 **nasesimeni sendzawo** (*the environment*), 45 **nemutsi wemacembe** (*weed killers*), 48 **sibalo setisebenti** (*amount of labour*), 50 **tilimo letinesakhiwo lesiguculiwe** (*GM crops*), 51-52 **emanti laneluswayi nashukela** (*salinity*), 60 **mmandzi emlonyeni** (*better flavour*) and 64-65 **nalabakhicita kudla** (*food processors*).

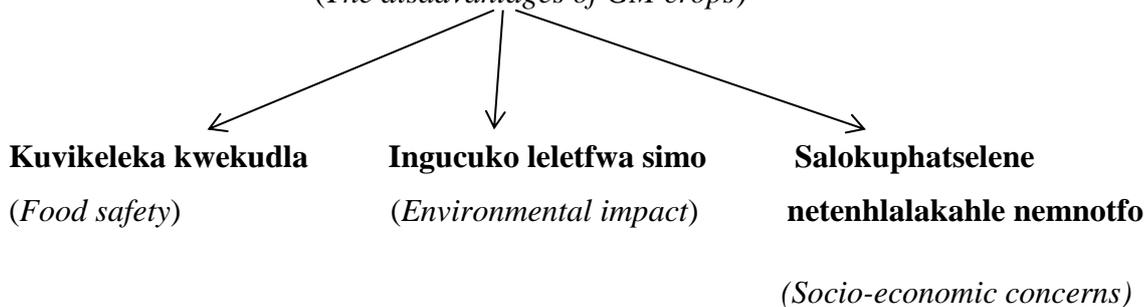
Consider one more segment from text 5.1 in lines 66- 160 which exhibits a variety of grammatical items and lexical cohesive items. In this segment the analysis on reference will go in three stages 66-85, 87-114 and 115-164. In lines 66-85, anaphoric reference occurs where the relative concords **leti-** (*that*) in **letinesakhiwo** (*that have genes*) refers back to the possessive phrase **betilimo** (*of crops*) while **le-** (*that*) points back to the noun in the relative associative noun phrase **letinesakhiwo**. The subject concord **be-** (*is*), in the verb phrase **behlukaniswe** (*are categorised*), points back to the noun phrase **bubi** (*disadvantages*). In line 72, the subject concord **ba-** (*they*) refers back to the noun phrase **bantfu** (*people*). In line 77, the subject concord of class 8 in the verb phrase **tihlolwe** (*they are tested*) points back to the noun phrase **tilimo** (*crops*). In line 83, the

relative concord **loku-** (*that*) in the relative clause **lokungakaphatselani** (*that is not concerned*) and the concord of class 15 in the negative verb phrase **akudzingi** (*it does not need*) refers back to the noun phrase **kudla** (*food*).

In lines 87-114 anaphoric reference occurs in the use of the relative concord **lolu-** (*that is*); in the relative locative clause **lolusetilimeni** (*that is in plants*) points back to the noun in the prepositional phrase **kwelufuto** (*of genes*). In line 94, the relative concord **lolu-** (*that is*), refers back to the noun phrase **lukhula** (*weeds*). In line 95, the subject concord **lu-** (*it*) of class 11, points back to the noun phrase **lufuto** (*gene*). In line 99, the subject concord **ti-** (*they*) in the deficient verb phrase **tite** (*they do not have*), points back to the phrase **tilimo letimcoka njengembila** (*major food crops like maize*). In line 103, the subject concord **ba-** (*they*) in the verb phrase **batsintsekile** (*are concerned*) refers back to the noun phrase **bantfu** (*people*). Demonstrative connection occurs in line 93, where the first position demonstrative **loku** (*this*), refers to the preceding clause. An instance of comparative cataphoric reference is indicated in line 92, in the use of the comparative pronoun in the prepositional locative comparative pronoun **kuletinye** (*to other*) that compares plants. Hyponymy is also displayed in lines 66-69 where the advantages of GM crops are divided into three categories. They can be represented in a diagram like this:

Bubi betilimo letinesakhiwo lesiguculiwe

(*The disadvantages of GM crops*)



The segment on potential risks of GM crops has got three layers as illustrated. In lines 115-164 the segment also illustrates examples of anaphoric pronominal reference in demonstrative and comparative cohesion. Pronominal reference occurs in line 118, where the subject concord **a-** (*they*) of class 6, in the negative verb phrase **akakhoni** (*are not able*), refers back to the noun phrase **emave** (*countries*). In line 133 the class 2 subject concord **ba-** (*they*), points back to the noun phrase **balimi** (*farmers*). The relative concord **leti-** (*that*) in the relative predicate **letikhicita** (*that produce*), refers back to the noun phrase **tinkapani letinkhulu** (*large companies*). In line 160 the relative concord in the relative predicate **longayidli** (*that does not eat*), refers back to the noun

phrase **umuntfu** (*a person.*) Comparative cohesion is realised in line 150-153, by ... **bantfu labanyenti...** (*many people...*). Further, in line 118 demonstrative connections occur with **lamave lawa...** (*these countries*) where the demonstrative first position **lawa** (*these*) refers back to the previous sentence and in line 132 where the first position demonstrative **loku** (*this*) points back to the previous sentence. These exemplify endophoric reference as the demonstratives point inside the text. In all the three segments, the use of reference realises the occurrence of substitution relations and given information.

The segment in lines 66-164 also makes use of conjunctions, i.e. the segment exhibits some instances of coordinating conjunctions of addition **kanye** (*and*), expanding on disadvantages of GM crops and **ne-** (*and*). Subordinating conjunctions also occur in the conjunction of condition **uma** (*if*) in relation to crops sold in markets and a conjunction of time **ngaphambi** (*before*). Subordinating conjunctions also occur in **kuze** (*to*), a conjunction of purpose.

With regards to lexical choices for communicative purposes, the segment displays instances of repetition in the phrase **kuvikeleka kwekudla** (*food safety*) in lines 68 and 71, the noun phrases **tilimo** (*crops*) in lines 66, 76 and 77, **kuguculwa kwesakhiwo** (*genetic modification*) in lines 66, 77-78 and 88, the noun phrase **lakhula** (*weeds*) in lines 46. In lines 66 and 33, synonymy occurs with words of similar meaning or related meaning such as in **bubi/ ingoti** (*disadvantages/potential risks*), lines 97 and 100 in the sentential adjuncts of contrast **kodvwa-ke/ kepha-ke** (*however/but*), in 103 and 110 **futsi/ ngetulu kwaloko** (*in addition/moreover*), in line 159, in the noun phrase **tibhidvo netitselo** (*vegetables and fruits*)/**emavegeteriyeni** (*vegetarians*). Another grammatical element is antonymy which is indicated in the use of **tibhidvo netitselo: inyama** (*meat*), 106 in the verb phrases **akudzingi** (*it does not need*): **sidzinga** (*we need*), in 158 **nalabadla** (*and who eat*): **longayidli** (*who does not eat*).

Further, the segment displays relations of collocation in lines 71 in the infinitival nominal occurring with a possessive phrase **kuvikeleka kwekudla** (*food safety*), 97, in the sentential adjuncts **kodvwa-ke** (*however*) and 98-99 **ngenhlanhla lenhle** (*fortunately*) and 110 **ngetulu kwaloko** (*moreover*), which in English are written as one word. Other examples of collocation are **eveni lonkhe** (*worldwide*) in line 111, **eNingizimu neAfrika** (*South Africa*) in line 111, **naseNhla neAfrika** (*North America*) in line 112 and **eluhlangotsini lwetenhlalakahle nemnotfo** (*Socio-economic concerns*) in line 114.

The discussion text in 5.1, written in siSwati, modelled a variety of grammatical cohesion and lexical cohesion resources for communicative purposes. In terms of grammatical cohesion, common

types of references are those pointing backwards (anaphoric) realised in relative concords, absolute pronouns, subject and object concords, prepositional phrases and demonstrative pronouns, realising substitution and indicating new information. There are instances of cataphoric reference realised in comparative pronouns and some occurrences of exophoric and endophoric references. Homophoric references do appear whereby the meaning of a word is retrieved strictly from cultural knowledge or from a specific context. As already mentioned, substitution is indicated by the use of referential relations. There are few instances of ellipsis. The mostly used conjunctions are coordinating conjunctions of addition, alternative, associate conjunctions and subordinating conjunctions of condition and reason.

With regard to lexical choices of communicative purposes, the text displayed dominant use of noun phrase repetition. Synonyms are realised in sentential adjuncts of contrast and of expansion, in prepositional phrases and in noun phrases. Antonyms occur in relative clauses and verb phrases. There was one instance of hyponymy, occurring with advantages. Collocation relations frequently occur throughout the text and appear in sentential adjuncts, infinitival nominal groups and other nominal groups. In the next section, will be the analysis of theme and rhemes that appear in discussion genres.

Theme-rheme

As stated in chapter two, theme refers to the point of departure of a clause. It sets up the local context for each clause. The local context relates to the method of development of the text. When theme displays the topic of the sentence, it is unmarked and whenever a different choice of theme is made, the theme is then marked. The rheme represents the rest of the clause which can be referred to as new information. Themes and rhemes will be analysed in terms of stages. In the siSwati version, themes will be bolded and in italics while in the English translation they will be bolded and in italics. In the discussion text, the writer has chosen a particular thematic structure that suits an argument.

Consider first the segment in lines 1-13, repeated below:

<p><i>Inhloso yekugucula takhiwo temfuyo kutfola tilwane leti:</i></p> <ul style="list-style-type: none"> • Khula ngekusheshisa naletiniketa lubisi lolunyenti • Nelubisi lolunemphilo (takhiwo tetinkhomo tiguculwa ngelufuto lwebantfu khona titokhicita lubisi lolunelakitoferini, sicinisa matsambo-lesine puroteyini leyakha umtimba, lebalulekile ekukhuleni kwemtfwana). • Nemandla ekukhicita titfo letikhishwa kubantfu. 	<p>The aim of genetic modification of livestock is to produce animals with:</p> <ul style="list-style-type: none"> • <i>Improved growth rates and milk yields.</i> • <i>Therapeutic proteins in milk (cows are genetically modified with human genes so that they produce milk that contains lactoferrin, iron- containing protein that is necessary for infant growth).</i> • <i>Potential production of organs for human transplants.</i>
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In lines 1-13, it is striking that one unmarked theme **Inhloso yekugucula takhiwo temfuyo** (*The aim of genetic modification of livestock*) takes three rhemes.

Consider lines 23-27 and 32-34, repeated below.

<p><i>Incenye yebantfu ikholelwa ekutseni kuguculwa kwetakhiwo talokuphilako kuyintfo lengasiyo indalo futsi kungaba yingoti ngendlela lemangalisako.</i> <i>Kuloluhlangotsi, sitawubuka buhle nengoti ye kugucula takhiwo.</i></p>	<p><i>Some people believe that it is unnatural to modify the genes of organisms and that GMOs could be harmful in ways we cannot imagine.</i></p> <p><i>In this section, we will look at both the potential benefits and the potential risks of GM crops.</i></p>
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In lines 23-27 the theme switched over to a language of engagement by using the unmarked theme **Incenye yebantfu...** (*Some people...*) while in lines 32-34, the theme shifted to a prepositional phrase **Kuloluhlangotsi...** (*In this section...*), exemplifying a marked theme.

When discussing about potential benefits of GM crops, the writer consistently employed the same unmarked theme from lines 35-65 **Tilimo letiguculwe sakhwiwo...** (*GM crops...*). Consider lines 35-43 repeated below.

<p><i>Tilimo letiguculwe sakhwiwo tinentalo phindze tikhicita ngelinani lelisetulu.</i> <i>Tilimo letiguculwe sakhwiwo letingahlaselwa lubhubhane netifo tinciphisa sidzingo setifutfo temakhemikhali. Loku kuyinzuzo kumlimi nasesimeni sendzawo</i></p>	<p><i>GM crops are more productive and have higher yields.</i></p> <p><i>GM crops that are resistant to pests and diseases reduce the need for chemical sprays. This benefits farmers and the environment</i></p>
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Consider, specific themes taken from the segment in lines 66-149. In lines 71-77 **Bantfu bancenekile ngemiphumela yaphoyizini, tintfo letala nemphilo, tingoti tekushintja luhlobo lwekudla nemiphumela yesikhatsi lesidze lengavetwa tilimo letinesimo lesiguculiwe.** (*People are concerned about the effects of toxins, allergies, dangers of nutritional changes and unexpected long-term effects of foods made from GM crops*). This exemplifies an unmarked theme, taking the noun phrase **bantfu** (*people*) with multiple rhemes. In lines 79-81 **Uma tiphumelela kuloluhlobo setingatsengiswa emakethe.** (*Only when they pass all these tests are they declared safe and can they be introduced into the market*), the theme is represented by a dependent clause of time. In lines 89-93 theme switches to a coordinating conjunction of exemplification, **Sibonelo, lufuto lwekungasebentelani nemutsi wetilimo letinamacembe ungasuka etilimeni letiguculwe simo luye kuletinye titjalo, ikakhulu lukhula.** (*For example, genes for herbicide-resistance could spread from GM crops to other plants, especially weeds*). The next lines 93-94 shift theme again to a demonstrative first position **Loku kungakha lukhula lolukhulu lolungabulaleki ngemutsi.** (*This could lead to the creation of herbicide-resistance 'super weeds' that could not be controlled*).

In the next examples theme position displays sentence evaluative adjuncts. In lines 97-98 **Kodvwa-ke, kuvuvutela lokudibene kwenteka etilimeni letihlobene kuphela.** (*However, cross-pollination only occurs between closely related plants*). In lines 98-100 theme position takes a sentential adjunct of evaluating success in **Ngenhlanhla lenhle, tilimo letimcoka njengembila tite lukhula loluhlobene nato.** (*Fortunately, major food crops like maize do not have weedy relatives*). In lines 110-114 theme position includes an evaluative introductory adjunct of addition **Ngetulu kwaloko, eveni lonkhe, njenga se Ningizimu ne Afrika, e Europe naseNhla neAmerika tilimo letiguculwe simo tiyalandzelelwa ngelucwaningo lwesikhatsi lesidze.** (*Furthermore, GM crops are being monitored in long-term studies in places all over the world, including South Africa, Europe and America*). Notice that in the translation, the theme takes a very different structure, in the siSwati version theme is different from one in the English version. Again in lines 120-124 the sentence consists of multiple themes, in the siSwati version in **Lamave lawa akakhoni kuba netilimo letiguculwe sakhiwo, ngako-ke kumele akhiphe inkhokhelo yebuciko kute kuvaleke inkhokhelo yekutfufuka kwesilimo lesiguculwe sakhiwo.** (*These countries cannot afford to develop their own GM crops and so have to pay a technology fee to cover the costs of the development of the GM crop*).

Further, in lines 136-141 the theme pattern tracks back to a sequential conjunction **Lokunye, kunekutsintseka ngemihambo yebhizinisi yaletinye tinkapani letinkhulu letikhicita tiphindze titsengise tilimo letinesakhiwo lesiguculiwe.** (*There are also concerns about the business ethics of some large companies that are producing and marketing GM crops*). In lines 150-153 thematic

progression picks up on a sentential sequential adverb **Kwekugcina, bantfu labanyenti abahambisani nekutsi bunjiniyela bekugucula takhiwo tetilimo kubuciko.** (*Finally, many people are opposed to genetic engineering as a technology*).

In the discussion on potential risks of GM crops, the writer takes various patterns of thematic development. The frequently used themes begin with sentential adjuncts, which represent marked themes. All the themes are an indication of new information added to given information.

In summary, discussion genres employ both marked and unmarked themes in different stages. It is worth noting that in the argument for one side, unmarked themes are predominantly used while on the argument for the other side, themes are both marked and unmarked with frequent use of sentential adjuncts. In the following section, interpersonal resources are explored.

5.2.1.2.3. Interpersonal metafunction: The appraisal system

In chapter four it was stated that the appraisal theory is divided into three categories: attitude (affect, judgement and appreciation), engagement (monoglossic or heteroglossic) and graduation: force (raise, lower) or focus (sharpen or soften). Affect is used to express emotional reaction, appreciation is to evaluate the worth and quality of things and processes while judgement serves to judge the behaviour of others. The discussion text in 5.1 exemplifies some appraisal resources used on genetic modification of animals.

Attitude is expressed where the writer is describing the feelings of others, in lines 23-27 **Incenye yebantfu ikholelwa ekutseni kuguculwa kwetakhiwo talokuphilako kuyintfo lengasiyo indalo futsi kungaba yingoti ngetindlela letimangalisako.** (*Some people believe that it is unnatural to modify the genes of organisms and that GMOs could be harmful in ways we cannot imagine.*), in lines 71-77 **Bantfu bancenekile ngemiphumela yaphoyizini, tintfo letala nemphilo, tingoti tekushintja luhlobo lwekudla nemiphumela yesikhatsi lesidze lengavetwa tilimo letinesimo lesiguculiwe.** (*People are concerned about the effects of toxins, allergies, dangers of nutritional changes and unexpected long-term effects of foods made from GM crops*), lines 103-105 **Futsi bantfu batsintsekile ngetilokatane letilusito letingafa uma tidla tilimo letiguculwe sakhivo naletingahambelani nesilokatane.** (*People are also concerned that beneficial insects as well as pests could be killed when they feed on GM crops that are insect resistant*), and lines 124-128 **Futsi kunekwesaba kutsi tinkapani letinkhulu letidibanise emave titawugcina setilawula kukhicitwa kwekudla emaveni lasatfutfuka.** (*There are also fears that the large multinational companies that develop GM crops will end up controlling food production in developing countries*).

Resources of appreciation are also displayed in the text. In lines 14-17 negative appreciation is demonstrated through the exposition **bunjiniyela bekugucula takhiwo tetilwane buvamise kufaka ekhatsi kujova licandza leselivundzile ngemjovo lomncane lohambelana nesakhiwo lesihlosiwe.** (*Most genetic engineering of animals involves microinjection of desired genes into a fertilised egg or early-stage embryo.*) Positive appreciation is expressed lines 35-39 **Tilimo letiguculwe sakhiwo tinentalo phindze tikhicita ngelinani lelisetulu. Tingasisita kukhacita kudla lokunyenti lokungondla sibalo sebantfu lesikhula ngekushesha.** (*GM crops are more productive and have higher yields. They could help us to produce more food to feed the world's rapidly growing population*). These two examples contain resources of graduation which are highlighted in italics in the siSwati version and bolded in the English version.

Judgement is made in relation to the implications of GM crops, which is presented in the form of three potential risks in lines 71, 86 and 114 **kuvikeleka kwekudla** (*food safety*), **kugucuka kwesimo** (*environmental impact*) and **kutsintseka eluhlangotsini lwetenhlalakahle nemnotfo** (*socio-economic concerns*)

Further, the writer used engagement resources to construe an authorial presence, that is, the discussion was opened to other voices (heteroglossic) as displayed in lines 105-107 **Solo sidzinga umningwane wesikhati lesidze kuze kuhlolisise lenkinga.** (*We still need long-term field data to test the concerns.*), in lines 110-114 **Ngetulu kwaloko, eveni lonkhe, njenga seNingizimu neAfrika, eEurope naseNhla neAmerika tilimo letiguculwe simo tiyalandzelelwa ngemfundvo yesikhatsi lesidze.** (*Furthermore, GM crops are being monitored in long-term studies in places all over the world, including South Africa, Europe and North America*).

5.2.2. Exposition: Tisebenti (*Labour*)

Text 5.2

<p>1] Incenye yesibili lemcokwa kutekulima ngumsebenti. Umsebenti usho tisebenti tasefamini letiholelwako (njalo ngenyanga) netimbadalo (onkhe malanga noma njalo 5] ngeliviki) kubuyisela emsebentini lebawentile. Tisebenti tiletsa ingucuko ekuphumeleleni kwemsebenti wasefamini. Umsebenti ngulenyeye yetintfo letibitako eluhlangotsini lwetekulima. Ngesikhatsi 10] kuhlelwa tigaba temsebenti efamini, umphatsi kumele ahlolisise ngeluhlobo lwemsebenti lanalo bese uyancuma ngesibalo setisebenti lekatidzingako, lizinga</p>	<p>The second production factor in agriculture is labour. Labour refers to farm workers (labourers) who are paid salaries (monthly payments) and wages (daily or weekly payments) in exchange for their work. Labour has a significant impact on the success of a farming enterprise. Labour is one of the largest cost items in the agricultural sector. During the planning phases of a farming enterprise, the manager has to consider what labour is available and decide how much labour he needs, the skills that the workers need to have, the amount of responsibility they will be given and the wages</p>
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<p>lekutibophelela, emaholo kanye netindzawo 15] tekuhlalisa tisebenti takhe. Umphatsi udzinga kulawula tisebenti takhe, atente tihlale njalo tikhutsatekile, aphindze agcine budlelwano lobuhle nato.</p>	<p>and accommodation that will be provided. The manager also needs to direct his workers, keep them motivated and maintain good relations.</p>
<p>Tinhlobo tetisebenti Tiyehlukana tindlela tekucashwa 20] kwetisebenti tasefamini. Loku kukhinyabeta kuvikeleka kwemsebenti kanye nenzuzo letfolakalako (njenge malanga ekuphumula nembadalo yekusebenta sikhatsi lesingetulu kwalesikaliwe). Tisebenti 25] tesikhashana ngutona letite kakhulu kuvikeleka kwemsebenti. Ngekubeka kwemitsetfo ya (1997) legadze kucashwa kwetisebenti, tisebenti tesikhashana nguleto letisebenta emaawa langephansi 30] kwalangemashumi lamabili nakune ngenyanga. Bete tivumelwano nemcash, futsi ngekubekwa kwalomtsetfo kute lebakuzuzako ngaphandle kwemholo. Kepha lomtsetfo unato tivumelwano naletinye 35] tisebenti tasefamini, futsi utivikela ngalokuphelele. Letisebenti tasefamini tingahlelwa ngalendlela lelandzelako:</p>	<p>2.1 Types of labour Farm worker's terms of employment can vary quite considerably, which affects their job security as well as the benefits that they receive (such as leave and overtime pay). Casual workers have the least job security. According to the Basic Conditions of Employment Act (1997), casual workers are those who work less than 24 hours in a month. They do not have contracts with their employer and are not covered by certain provisions of the Act. All other farm workers must be employed on contract and are covered fully by this Act. Such farm labourers can be classified as follows:</p>
<p>Tesikhatsi sonkhe-labo labasebenta emaawa lajwayelekile, labekiwe kuloluluhlangotsi 40] efamini (ngalamanye emagama, emaawa langemashumi lamane nesiphohlango ngeliviki)</p>	<p>Full-time- those who work the ordinary hours set for the farming sector (in other words, 48 hours per week)</p>
<p>Incenye yesikhatsi- labavame kusebenta sikhatsi lesifisha kunalabo besikhatsi 45] lesejwayelekile kuloluluhlangotsi lwemsebenti (sibonelo, emalanga lamabili evikini noma ekuseni kuphela)</p>	<p>Part-time- those who regularly work less than the ordinary hours for the sector (for example, two days a week or morning only)</p>
<p>Incenye yesikhatsi emnyakeni- labo labacashwa ngetikhatsi letimatima, bavamise 50] kucashelwa kwenta intfo letsite njenge kuvuna.</p>	<p>Seasonal- those who are employed during peak periods, often for a specific task such as harvesting</p>
<p>Kwesikhashana lesitsite- labo labacashwe sikhatsi lesitsite emsebentini lotsite noma ke kuze kucashwe sisebenti sesikhatsi sonkhe.</p>	<p>Temporary- those who are employed on a temporary basis for a particular task or until a permanent employee is appointed.</p>
<p>55] Ngalesinye sikhatsi balimi babhekana nenkinga nakunekwesweleka kwetisebenti letinyenti ngetikhatsi letitsite temnyaka, kantsi ngalesinye sikhatsi tisebenti tabo atenti lutfo. Loku kuyinkinga yesikhatsi lesitsite 60] emnyakeni, sibonelo, tisebenti</p>	<p>Farmers sometimes encounter a problem when they need a large amount of labour during certain times of the year, while at other times their staffs are not very busy or productive. This is often a seasonal problem, for example, labourers are busy at lambing time. To overcome this, their</p>

tiphishaneka kakhulu ngesikhatsi sekutalwa kwetimvu. Ekulweni nalesimo, tisebenti tingasebenta sikhatsi lesingetulu nakunemsebenti lomnyenti, kungengetwa 65] tisebenti ngesikhatsi lesinjena noma ke umphatsi atsenge imishini letawunciphisa umsebenti.	staff must either work more overtime during peak periods, extra workers must be hired during these periods or the manager can invest in machinery that will reduce the labour requirement.
2.2 Kuphatsa tisebenti Umsebenti kufanele unakekelwe ngekucopehela ngoba uyintfo lebita kakhulu 70] efamini. Uma tisebenti tiba semsebentini kodvwa tingenti lutfo, kusho kutsi umholo wato ufana nekujika imali elwandle.	2.2 Managing Labour Labour must be managed carefully because it is one of the biggest expenses on a farm. If labourers are not working while they are on duty, the money they are being paid is wasted.
Kuhamba kwemsebenti kusho sikalu semsebenti lowentiwe lolingene imali 75] yemholo lebhadaelwe tisebenti. Kute tisebenti tisebente ngalokwanele, umphatsi kumele acceshe tisebenti, agcine budlelwano lobuhle phindze achache tinkinga tetisebenti. Kumcoka kunaka buciko 80] nemakhono etisebenti.	Labour productivity is the amount of work that is done relative to the amount of money that is spent on wages and salaries. In order to maximise the productivity of the workforce, the manager needs to develop staff, maintain good relations and resolve conflict. Recognition of workers' skills and abilities is also important.
Ati linani letisebenti letidzingeka kulowo nalowo msebenti (njenge tindzima ngelilanga) nesikhatsi sekwentiwa kwemsebenti	Know the number of workers required for each job, the rate of work for each job (such as hectares/day) and the time period when the job must take place
85] Ahlembise tigungu tetisebenti kuze tingacitsi sikhatsi solo timelene	Coordinate the work teams so that they do not waste time waiting for each other
Afake liso endleleni letentiwa ngayo tintfo kute abone uma kunesidzingo sekwenta ngalenywe indlela lengasebenta kancono (loku 90] kutsiwa luhlolo lwemsebenti).	Look critically at the ways things are done to see whether the tasks could be carried out in a more efficient way (this activity is sometimes called work study).

5.2.2.1. The generic structure of an exposition text

The purpose of exposition genres is to argue for a point of view such as labour in text 5.2. In an exposition, three stages are displayed: thesis, arguments and reiteration. These stages were discussed in chapter two. Consider how these stages are manifested in the text on 'Labour'. The thesis stage is demonstrated below.

Thesis stage

In the segment in lines 2-7 the thesis stage is exemplified in that the thesis is stated in a statement related to labour. This stage includes background information displayed in lines 3-7 concerning payments, the manager and qualifications of workers. The next stage is based on arguments.

Arguments

In lines 8-22 the stage of arguments of the exposition is demonstrated in that a series of arguments are exemplified in relation to types of labour such as casual, full-time, part-time, seasonal and temporary. The genre segment of explanation and classification are displayed in grouping and explaining the five types of labour. The genre segment of exposition is displayed in lines 8-15 concerning casual workers. The last stage is reiteration, exemplified below.

Reiteration stage

In lines 24-31, the reiteration stage is displayed strongly and directed to the manager, recommending what he has to do, such as managing labour carefully and knowing the number of workers required. In this stage, the genre segment of procedure is demonstrated, telling the manager what to do.

An exposition has three stages: thesis, arguments and reiteration. The thesis stage includes background information for the benefit of the reader. Such a genre can deploy genre segments of explanation, exposition, classification and procedure. In the next heading, shall be a study of language components that are characterizes the exposition text. Note that some language components are similar to those of discussions as they both belong to arguments. Basic language components used in exposition genres are displayed in the next paragraph.

5.2.2.1.1 Language Components of Expositions

The text in 5.2 exemplifies language components that characterise an exposition genre. In expositions, facts and evidence are used to persuade and also explain as in lines 11-13] **Tisebenti tesikhashana ngutona letite kakhulu kuvikeleka kwemsebenti. Ngekubeka kwemitsetfo ya (1997) legadze kucashwa kwetisebenti, tisebenti tesikhashana nguleto letisebenta ...Bete tivumelwano nemicashi, futsi ngekubekwa kwalomtsetfo kute lebakuzuzako ngaphandle kwemholo.** (*Casual workers have the least job security. According to the basic conditions of employment act (1997), casual workers are those who work less than 24 hours in a month. They do not have contracts with their employer and are not covered by certain provisions of the act.*)

In addition, language used in expositions focuses on the topic and organises arguments with topic sentences. The focus of the text is on **tinhlolo tetisebenti** (*types of labour*), **tesikhatsi sonkhe** (*full time*), **incenye yesikhatsi** (*part-time*), **incenye yesikhatsi emnyakeni** (*seasonal*), **kwesikhashana lesitsite** (*temporary*) and **kuphatsa tisebenti** (*managing labour*). The language also explains, describes and uses evidence in arguments. Explanations are given in all the topics and sub-topics

listed above. Evidence, explanations and descriptions are provided to make the arguments more ‘factual’ and powerful, for example, in line 25-28 **Tisebenti tesikhashana ngutona letite kakhulu kuvikeleka kwemsebenti. Ngekubeka kwemitsetfo ya (1997) legadze kucashwa kwetisebenti, tisebenti tesikhashana nguleto letisebenta emaawa langephansi kwalangemashumi lamabili nakune ngenyanga. Bete tivumelwano nemcashhi, futsi ngekubekwa kwalomtsetfo kute lebakuzuzako ngaphandle kwemholo.** (*Casual workers have the least job security. According to the Basic Conditions of Employment Act (1997), casual workers are those who work less than 24 hours in a month. They do not have contracts with their employer and are not covered by certain provisions of the Act*). The example above displays that in expositions, language attributes assessments to expert sources.

Technical terms and abstract ‘packaging’ nouns are employed in an exposition genre. They add to the ‘factual’ quality of the arguments. However, most technical terms are explained in siSwati, as illustrated in all the sub-headings used in the text. Language in expositions shows cause and effect, as in **Uma tisebenti tiba semsebentini kodvwa tingenti lutfo, kusho kutsi umholo wato ufana nekujika imali elwandle.** (*If labourers are not working while they are on duty, the money they are being paid is wasted*). The language also judges and evaluates, hence the text include judgements and evaluations such as in **Kute tisebenti tisebente ngalokwanele, umphatsi kumele aceceshe tisebenti, agcine budlelwano lobuhle phindze achache tinkinga tetisebenti. Kumcokwa kunaka buciko nemakhono etisebenti.** (*In order to maximise the productivity of the workforce, the manager needs to develop staff, maintain good relations and resolve conflict. Recognition of workers’ skills and abilities is also important*). This example demonstrates that in expositions language assesses degrees of what is probable or usual, which is normally marked by the use of modality like **kumele** (*must*) and **akukafanele** (*never*).

In expositions, the writer uses language that appeals to the readers using objective expressions such as in **Umsebenti kufanele unakekelwe ngekucopehela ngoba uyintfo lebita kakhulu efamini.** (*Labour must be managed carefully because it is one of the biggest expenses on the farm*).

Emotional or colourful language is another characteristic of an exposition, such as in **Ngalesinye sikhatsi balimi babhekana nenkinga nakunekweswelakala kwetisebenti letinyenti ngetikhatsi letitsite temnyaka, kantsi ngalesinye sikhatsi tisebenti tabo atenti lutfo.** (*Farmers sometimes encounter a problem when they need a large amount of labour during certain times of the year, while at other times their staffs are not very busy or productive*). Comparative language is also depicted in **Tonkhe leletinye tisebenti tasefamini kumele tibe netivumelwano, futsi tivikelekile kulomtsetfo wetisebenti.** (*All other farm workers must be employed on contract and are covered fully by this Act*).

The writer of the text dwelt on the use of the impersonal voice. The impersonal voice is used to indicate an objective opinion, such as through the use of absolute statements or modalised statements, for example, **Tisebenti tiletsa ingucuko ekuphumeleleni kwemsebenti wasefamini.** (*Labour has a significant impact on the success of a farming enterprise*). Temporal connectives are used such as **ngesikhatsi** (*during*) and **uma** (*if*). Furthermore, nominalisation is used in expositions to allow the writer to condense information and deal with abstract issues. The process of nominalisation can also have the effect of removing agency as in **kuvuna** (*harvesting*), **kunaka** (*recognition*), **umphatsi** (*manager*) and **umsebenti** (*labour*). It is worth noting that the writer of the text did not employ much linking devices.

The text in 5.2 does exhibit a variety of language components that characterise an exposition genre. The organisation of an exposition will be discussed in the next paragraph.

5.2.2.1.2 The Organisation of Information within Expositions

An exposition follows a particular style of information organisation. The text commences with a clearly stated thesis or major proposition, as in the above text it is **Incenye yesibili lemchokwa kutekulima ngumsebenti.** (*The second production factor in agriculture is labour*). The thesis is not accompanied by elaboration or any supporting statement in the same sentence. The thesis is followed by the argument stage which may comprise of one point and elaboration. In most cases this is contained in one sentence as in **Umsebenti usho tisebenti tasefamini letiholelwako (njalo ngenyanga) netimbadalo (onkhe malanga noma njalo ngeliviki) kubuyisela emsebentini lelawentile.** (*Labour refers to farm workers (labourers) who are paid salaries (monthly payments) and wages (daily or weekly payments) in exchange for their work*).

As learners write, points may increase in number and the degree of detail in the elaboration. The ordering of the points is very important to the effectiveness of the argument. The order of points may be established by a preview, as in **Letisebenti tasefamini tingahlelwa ngalendlela lelandzelako:** (*Such farm labourers can be classified as follows :*). The last stage of an exposition is the concluding statement where the thesis is reiterated. Sometimes, a summary is also given at this point. Each of the stages should be signalled by a new paragraph so as to highlight the different generic stages of the exposition. This is how an exposition can be organized.

In the following section, linguistic resources representing meaning will be analysed in terms of text 5.2.

5.2.2.2. Linguistic resources representing meaning and meaning relationships

This section explores on linguistic resources that represents meaning and meaning relationships in the exposition text in text 5.2. The analysis shall follow the same format as that of discussions, beginning with the ideational metafunction.

5.2.2.2.1. Ideational metafunction

In this section, the analysis will be on linguistic resources that realise the ideational metafunction (i.e. logical and experiential) metafunction in an exposition text, in the siSwati language system. Consider first the following segment in lines 1-2 repeated here.

Incenye yesibili lemckwa kutekulima ngumsebenti. *(The second production factor in agriculture is labour).*

With regards to the logical metafunction, the segment in lines 1-2 illustrates a single independent clause. The clause includes a relative clause **lemckwa** (*that is important*) and occurs with a prepositional phrase **kutekulima** (*in farming*), realising a circumstance of aboutness and a copulative noun **ngumsebeti** (*it is work*), realising a relation of emphasis to the second production factor. In terms of the experiential metafunction, the head noun **incenye** (*the section*) is post-modified by a possessive phrase **yesibili** (*second*), realising a relation of attribute denoting numerals and a relative clause **lemckwa** (*that is important*), expressing a relation of attribute to the second production factor in agriculture. The head noun **incenye** is further post-modified by a locative prepositional phrase **kutekulima** (*in agriculture*), realising a relation of matter. The copulative noun phrase **ngumsebenti** (*it is labour*) has four pre-modifiers **incenye** (*the section*), **yesibili** (*the second*), **lemckwa** (*that is important*) and **kutekulima** (*in agriculture*), realising a relation of attribute denoting a description of the noun in the copulative noun phrase **ngumsebenti**. The present tense verb in the copulative noun represents a relational process and takes a theme participant which is the noun in the copulative noun phrase **ngumsebenti** and a participant attribute represented by the pre-modifiers.

Consider as another example, of the ideational metafunction, the segment in lines 15-18 of the above text.

Umphatsi udzinga kulawula tisebenti takhe, atente tihlale njalo tikhutsatekile, aphindze agcine budlelwano lobuhle nato.

(The manager also needs to direct his workers, keep them motivated and maintain good relations).

In terms of the logical metafunction, the above sentence displays three clauses of equal dependency status with a sequence of verbs in the subjunctive mood where all verbs are in the present tense and the first one is an infinitive verb **kulawula** (*to direct*). The first independent clause **umphatsi... takhe...** (*the manager...his*) where the head noun **umphatsi** is conjoint to an infinitive clause with a deficient verb **udzinga** (*he needs*). The second equal dependency clause is **atente... tikhutsatekile** (*he makes them...encouraged*) which includes a subjunctive clause **atente** (*he makes them*) and an infinitive clause **tihlale** (*to stay*). The third clause is the subjunctive **agcine...nato** (*he keeps...with them*). The latter clause is conjoined by a conjunction **aphindze** (*and also*), realising a relation of addition to responsibilities for a manager. The latter clause further includes an associative conjunction in **nato**, realising a relation of accompaniment (committative) between the manager and his workers.

With regards the experiential metafunction, the verb in the infinitive clause **kulawula** (*to direct*) represents a verbal (saying) process, taking a participant agent **umphatsi** (the manager) and a participant addressee which is the noun phrase **tisebenti** (*workers*). This noun phrase is post-modified by a relative phrase **takhe** (*that belong to him*), creating a relation of attribute denoting possession of the noun **tisebenti**. Further, the noun phrase **umphatsi** realises grammatical metaphor in that, it is a nominalization of the verb **phatsa** (*manage*). Similarly, the infinitive verb phrase **kulawula** (*to direct*) demonstrates grammatical metaphor in the nominalization of the verb **lawula** (*direct*). The verb in the subjunctive present tense verb phrase **atente** (*he makes them*) represents a behavioural process, taking a participant actor represented by the AgrS **a-** (*he/she*), representing the pronominal meaning of the noun **umphatsi**. The participant patient is the noun **tisebenti**. The verb in the other present tense subjunctive verb phrase **tihlale** (*they are kept*) represents a behavioural process, taking a participant experiencer represented by the AgrS **ti-** (*they*), referring to the pronominal meaning of the noun **tisebenti**. The participant agent is the noun **umphatsi**. The verb phrase **tihlale** is post-modified by an adverb **njalo** (*always*), expressing a relation of attribute (*frequency*) to the verb **tihlale**. The participant experiencer **tisebenti** is post-modified by a complement **tikhutsatekile** (*they are motivated*), creating a meaning relationship of attribute to the noun **tisebenti**. The verb in the present tense complement **tikhutsatekile** realises a behavioural process. The participant experiencer is represented by the AgrS **ti-** (*they*), referring to the pronominal meaning of the noun **tisebenti**. The participant agent is implied.

Moreover, the verb in the present tense verb phrase **agcine** (*he keeps*) in the subjunctive mood, represents an existential process. The participant agent is represented by the AgrS **a-** (*he/she*), referring to the third person and the participant goal is the noun **budlelwano** (*relations*) which is post-modified by a relative phrase **lobuhle** (*that is good*), creating a relation of attribute to

relationships. The relative phrase **lobuhle** takes an associate predicate **nato** (*with them*), creating a relation of accompaniment (committative) to the manager and his workers. The noun phrase **umphatsi** involves nominalisation.

The following segment in lines 24-26 repeated here, exemplifies a range of properties in terms of the logical and experiential metafunction of the siSwati linguistic resources.

Tisebenti tesikhashana ngutona letite kakhulu kuvikeleka kwemsebenti.

(Casual workers have the least job security).

In terms of the logical metafunction, the above sentence in line 24-26 consists of a main independent clause. This clause incorporates a relative clause **letite... kwemsebenti** (*that do not have...of work*) which also contains an infinitive clause **kuvikeleka** (*protection*) and realises grammatical metaphor in that, it is a nominalization of the verb **sebenta** (*work*). With regards to the experiential metafunction, the head noun **tisebenti** (*workers*) is post-modified by a diminutive possessive phrase **tesikhashana** (*of a short time*), realising a relation of attribute to the length of working time. The head noun **tisebenti** and its modifier **tesikhashana** are post-modified by a copulative pronoun **ngutona** (*they are the ones*), creating a relation of emphasis to casual workers with the least job security. The verb in the negative relative clause **letite...** (*that do not have...*) represents a relational process with a participant carrier represented by the concord **le-**(*that*), referring to the head noun **tisebenti**. The verb in the relative clause **letite** is post-modified by an adverb **kakhulu** (*much*), realising a relation of attribute denoting manner. The participant attribute is the infinitive noun phrase **kuvikeleka** (*to be protected*) which is post-modified by a possessive phrase **kwemsebenti** (*of work*), realising a relation of attribute to the greatest disadvantage of casual workers.

Consider next the segment in lines 31-33, demonstrating the ideational metafunction i.e. the logical and experiential metafunction) in an exposition text, in the language siSwati.

Bete tivumelwano nemcashi, futsi ngekubekwa kwalomtsetfo kute lebakuzuzako ngaphandle kwemholo.

(They do not have contracts with their employer and are not covered by certain provisions of the Act).

With regards to the logical metafunction, the sentence in lines 31-33 displays two clauses of equal dependency relationship whereby the absolute pronoun **bete** (*they do not have*) bears the reference of the head noun which is absent. The dominant clause **bete...nemocashi** (*they do not have...with*

their employer) represents an initiating clause and joins an independent passive expanding clause **ngekubekwa... kwemholo** (*as the law says...of salary*) with a conjunction **futsi** (*and*), realising a meaning relationship of addition to disadvantages related to casual workers. In the dominant clause, are two noun phrases **tivumelwano nencashi** (*agreements with the employer*) which the latter is joined with an associate conjunction **ne-** (*with*), creating a relation of accompaniment (commitative) between workers and employers. The expanding clause contains a relative clause **labakuzuzako... kwemholo** (*that they benefit... besides salary*).

In terms of the experiential metafunction, the present tense negative verb **bete** (*they do not have*) in the subjunctive mood, represents a relational process. The participant carrier is represented by the AgrS **be-** (*they*), referring to the pronominal meaning of a noun in class 2 plural. The participant goal is the noun phrase **tivumelwano** (*agreements*) which joins with an associate predicate **nencashi** (*the employer*), realising grammatical metaphor in the nominalization of the verb **cash** (*employ*). This associate predicate involves grammatical metaphor. In the expanding clause, the prepositional deficient passive verb **ngekubekwa** (*according to*) with an infinitive realises the circumstance of angle. The passive infinitive predicate in this deficient verb occurs with a verb that represents a verbal process, taking a participant sayer (source) in the possessive phrase **kwalomtsetfo** (*of the law*). The participant verbiage is **kute... kwemholo** (*nothing... salary*). The deficient negative verb **kute** (*there is nothing*) represents a relational process with a goal participant **lebakuzuzako** (*that which they benefit*). The verb in the relative clause **lebakuzuzako** represents a material process. The participant malefactive is represented by the AgrO **ba-** (*they*), referring to the pronominal meaning of the noun in class 2 plural. The locative phrase **ngaphandle** (*outside*) realises a circumstance of place and is post-modified by a possessive phrase **kwemholo** (*of salary*).

Consider as a further example, of the ideational metafunction (i.e. logical and experiential metafunction) of the segment in lines 48-51 of the above text.

Incenye yesikhatsi emnyakeni- labo labacashwa ngetikhatsi letimatima, bavamise kucashelwa kwenta intfo letsite njenge kuvuna.

(*Seasonal- those who are employed during peak periods, often for a specific task such as harvesting*).

In terms of the logical metafunction, the sentence in lines 48-51 consists of a main independent clause, only, with a head noun that is explained. With regards to the experiential metafunction, the sentence exhibits various phrases and clauses, appearing as pre-modifiers and post-modifiers. It is a complex noun phrase as it stands, of which the head noun **bantfu** (*people*) is absent. The head noun

incenye (*part*) is post-modified by a possessive phrase **yesikhatsi** (of time), creating a relation of attribute to the head noun. The prepositional phrase **emanyakeni** (*during the year*) realises a circumstance of time to the process of employing. The demonstrative pronoun **labo** (*those*) realises the absent noun which is also realised in the pronominal relative clause **labacashwa** (*those who are employed*). The demonstrative pronoun expresses the goal participant of the passive verb in the pronominal relative **labacashwa**... The actor participant of this verb in **labacashwa** is implicit. The verb in this passive relative clause **labacashwa** realises a material process. The prepositional phrase **ngetikhatsi** (*during*) realises the circumstance of time in relation to the process of being employed. The noun in the prepositional phrase **ngetikhatsi** is post-modified by a relative clause **letimatima** (*that are heavy*), expressing an attribute of specificity to the head noun in **ngetikhatsi**. The verb in the infinitive verb phrase **kucashelwa** (*to be employed*) realises a material process. The agent participant is implied while the goal participant is expressed by the AgrS **ba-** (*they*), in the adverbial phrase **bavamise** (*they often*), referring to the pronominal meaning of a noun in class 2 plural and realising a relation of frequency to the expressed noun. The verb in the infinitive verb phrase **kwenta** (*to do*) realises a material process, taking, an implied actor participant and a goal participant **intfo** (*a thing*). The noun phrase **intfo** is post-modified by a relative phrase **letsite** (*that is specific*), realising a relation of specificity to the event. The head noun **ngetikhatsi** is furthermore post-modified by a comparative conjunction **njenge** (*such as*), realising a circumstance of comparison, containing an infinitive verb **kuvuna** (*harvesting*). The infinitive verb **kuvuna** involves grammatical metaphor.

Consider last the following segment in lines 55-59 repeated here in terms of the logical and experiential metafunction exemplified by the siSwati language system.

Ngalesinye sikhatsi balimi babhekana nenkinga nakunekwesweleka kwetisebenti letinyenti ngetikhatsi letitsite temnyaka, kantsi ngalesinye sikhatsi tisebenti tabo atenti lutfo.

(*Farmers sometimes encounter a problem when they need a large amount of labour during certain times of the year, while at other times their staffs are not very busy or productive*).

In terms of the logical metafunction the sentence in lines 55-59 displays a variety of clause types that create a variety of clause relations. The sentence contains two clauses of unequal status relationship. The dominant clause is **ngalesinye... temnyaka** (*at other times... of the year*), representing an initiating clause. The dominant clause includes some combinations of clauses and phrases, i.e. the noun phrase **balimi** (*farmers*) followed by a subjunctive clause **babhekene... nenkinga** (*they are faced... with problems...*). The associative predicate **nenkinga** (*with problems*), realises a relation of attribute to both the noun phrase **balimi** and the noun in the associative

predicate **nenkinga**. Furthermore, the associative noun phrase **nenkinga** is combined with a temporal dependent clause **nakunekweswelakala kwetisebenti** (*when there is need for workers*)..., realising a relation of problematic time. The dominant clause also contains a two relative clauses **letinyenti** (*that are many*) and **letitsite** (*that are specific*) another dependent situative clause **ngetikhatsi... temnyaka** (*during times... of the year*), realising a relation of time. The dependent clause **ngalesinye... lutfo** (*at other... nothing*) appears in a prepositional phrase and is introduced by a conjunction **kantsi** (*yet*), realising a relation of contrast in the process of employing workers. This clause contains a negative dependent clause in the present tense **atenti lutfo** (*they don't do anything*)

With regards to the experiential metafunction, the noun phrase **sikhatsi** (*time*) in the dominant clauses is pre-modified by an adverb **ngalesinye** (*sometimes*), realising a relation of frequency to the problematic period. The verb in the verb phrase **babhekana** (*they encounter*) represents a mental process. The participant experiencer of the verb in the verb phrase **babhekana** is represented by the AgrS **ba-** (*they*), referring to the subject concord of the noun **balimi** (*farmers*). The participant goal is in the associative noun phrase **nenkinga** (*with a problem*). The verb in the temporal clause **nakunekwesweleka** (*when there is a need*) containing an infinitive verb realises an existential (having) process. The participant goal is in the possessive phrase **kwetisebenti** (*of workers*) which is post-modified by a relative clause **letinyenti** (*that are many*), realising a relation of attribute to workers. In the prepositional phrase, in the dominant clause, the noun in the prepositional noun phrase **ngetikhatsi** (*at times*) is also post-modified by a relative phrase **letitsite** (*that are specific*) realises an attribute of specificity of time. Furthermore, the noun in a prepositional phrase is post- modified by a possessive phrase **temnyaka** (*of the year*)

In the dependent clause introduced by a conjunction of contrast **kantsi** (*yet*), the noun phrase **sikhatsi** (*times*) is pre-modified by an adverbial prepositional phase (*at other times*), realising a relation of frequency to the situation of workers having nothing to do. The noun phrae **tisebenti** (*workers*) is post-modified by a possessive pronoun **tabo** (*their*). The verb in the negative verb phrase **atenti** (*they don't do*) realises a material process, taking an active participant represented by the AgrS **a-** (*they*), referring to the subject of the noun **tisebenti** and a goal participant which is the noun **lutfo** (*nothing*).

In conclusion, the exposition text has displayed several logical and experiential resources in an exposition text, in the siSwati language system. In terms of the logical metafunction, common types of clauses are those of equal dependency and unequal status relationship. Some represent initiating and expanding clauses. There are also clauses that occur in the initiating and expanding clauses

such as the infinitive and relative clauses. The combination of clauses creates a variety of clause relations including aboutness, emphasis, matter, attribute, accompaniment (committative) and addition.

With regards to the experiential metafunction, processes involved are verbal, behavioural, existential, relational and material. Participants involved in these processes are agent, goal, addressee, actor, patient and sayer (source). Some participants are represented by concords and AgrS or AgrO referring to the pronominal meaning of particular noun classes. The participants are often post-modified by relative clauses and possessive phrases. Circumstances surrounding the processes and participants are basically of manner, angle and place. Most of which appear in prepositional phrases or adverbs. Grammatical metaphor is also involved through nominalisation.

In summary, the exposition text has demonstrated resources of the ideational metafunction, involving grammatical metaphor realised in noun phrases, i.e. **umphatsi** (*the manager*), infinitive verb phrases, i.e. **kulawula** (*to direct*), possessive noun phrases, i.e. **kwemsebenti** (*of the job*), and in associate noun phrases, i.e. **nemcashi** (*with employer*).

5.2.2.2.2. The textual metafunction

The Exposition text in 5.2 exhibits a variety of grammatical cohesion and lexical cohesion.

Consider first the segment in 1-18.

In terms of grammatical cohesion, the segment displays instances of anaphoric reference. The possessive concord in the possessive phrase **tasefamini** (*of the farm*) pointing back to the class 8 noun **tisebenti** (*labour*). The class 8 AgrS concord in the verb phrase **tiletse** (*they bring*) also points back to the noun **tisebenti**. The relative concord in the relative predicate **letibitako** (*that are costly*) refers back to the class 8 noun in the possessive phrase **yetintfo** (*of things*). These examples of anaphoric reference realise the use of given information as they point to information already given. Substitution also occurs in the use of reference and in line 15 the possessive phrase **takhe** (*his*) that substitutes the class 1 noun **umphatsi** (*the manager*). Verbal substitution is demonstrated in line 6 where the abstract verb phrase **tiletse** (*they bring*), containing a material process and in line 16 in the verb in the infinitive verb phrase **kulamula**, realising a verbal process. Further, coordinating conjunctions are illustrated in the use of the additive conjunction of alternative **noma** (*or*) in line 4 and **bese** (*and*) in line 12.

Lexical cohesion is created through the writers' choice of repetition, synonymy, antonymy and collocation. Repetition occurs in the use of the noun **umsebenti** (*labour*) in lines 2, 8, 9, and 12.

The noun **tisebenti** in lines 2, 6, 15 and 16, the locative noun **efamini** (*in the farm*) in lines 3, 7, and 10. In line 3 synonymy occurs in the use of the copulative noun **ngumsebenti** (*is labour*)/ **umsebenti** (*labour*) and in lines 4 and in the use of the associative noun **netimbadalo** (*and wages*)/ **emaholo** (*wages*) in line 14. Antonym is exemplified in lines 2 and 6 in the noun **tisebenti** (*labour*): **umphatsi** (*the manager*). In addition, collocation is demonstrated in lines 3, 4, 5 in the combination of time phrases **njalo ngenyanga** (*monthly*) **onke malanga** (*daily*) and **njalo ngeliniki** (*weekly*).

Consider next a segment in lines 19-65 displaying the use of a variety of grammatical cohesion such as pronominal reference, demonstrative reference, substitution, and conjunction.

In line 19, cataphoric pronominal reference is displayed in the use of the class 8 AgrS pronoun in the verb phrase **tiyehlukana** (*they vary*) that points forward to the noun phrase **tindlela tekucashwa** (*terms of employment*), realising new informative. Anaphoric reference is demonstrated in line 21 in the use of the infinitive verb **kukhinyabeta** (*it affects*), referring back to information in the process sentence. In line 20, demonstrative reference is exemplified in the use of the first position demonstrative **loko** (*this*) also pointing back to the previous sentence. The two examples illustrate given information. Again, anaphoric reference, and demonstrative reference realises the use of substitution. Further, substitution occurs in lines 2 and 3 in the copulative pronoun **ngutona** (*are those*) replacing the noun phrase **tisebenti tesikhashane** (*casual workers*). Coordinating conjunctions of addition appear in line 21 and 35, in **kanye ne** and **futsi** (*and*). A subordinating conjunction of exemplification **njenge** (*such as*) is displayed and of contrast **kepha** (*but*) in line 33.

With regards to lexical cohesion, the segment in line 19-33 displays lexical choices such as repetition, inclusion, synonymy, antonym and collocation. Repetition is indicated in the repetition of the noun **tisebenti** (*labour*) in lines 20, 24, 28, 35, 36; the noun **efamini** (*in the farm*) in lines 20, 35 and 36; the noun **umsebenti** (*labour*) in lines 21, 26; the noun **umtsetfo** (*basic condition*) in lines 27 and 34. Inclusion is displayed in lines 36, 38, 43, 48, in information about the classification of labourers: **tesikhatsi sonkhe** (*full time*), **incenye yesikhatsi** (*part time*), **incenye yesikhatsi emnyakeni** (*seasonal*), and **kwesikhashana lesitsite** (*temporary*), also realising collocation, focus presupposition, and antonym. Antonym is also illustrated in lines 24 and 31 in the use of the nouns **tisebenti** (*labour*): **nemcashi** (*employer*) and in lines 22 and 23 synonymy occurs in the noun **inzuzo** (*benefits*) **nembadalo** (*pay*). Conjunctive cohesion is illustrated in line 60, in the conjunction of exemplification, **sibonelo** (*for example*).

Consider a further segment in lines 68-90 exemplifying grammatical cohesion and lexical cohesion. In terms of grammatical cohesion, the segment displays reference, substitution, conjunction. Anaphoric reference occurs in line 68, in the use of the class 1 pronominal AgrS in the verb phrase **unakekelwe** (*be managed*), pointing back to the noun **umsebenti** (*labour*). In lines 23-24; the possessive concord in the possession phrase *semsebenti* (of work) refers back to the class 4 noun **sikalu** (*the amount*), marking given information and substitution. In line 81, the demonstrative pronoun second position in the locative demonstrative pronoun **kulowo** (*for such*) points to the noun **umsebenti** (*work*), also realising substitution. Homophonic reference is displayed in lines 72 **kutsela luswayi elwandle** (*to waste*) and in line 87, **afake liso** (*to look critically*) where the identity of the items is retained by reference to cultural knowledge. Collocation is exemplified in these examples.

A variety of conjunctions are displayed in this segment. In line 78, a coordinating conjunction of addition **phindze** (*and*) conjoins two clauses. Subordinating conjunctions are displayed, of reason **ngoba** (*because*) in line 79, of condition **uma** (*if*) in line 70; of comparison **njenge** (*such as*) in line 82 and of purpose **kuze** (*so that*) in lines 83 and 88.

Lexical cohesion is displayed in the use of repetition, synonymy, antonym and collocation which has always been discussed. Repetition occurs in the repetition of the noun **umsebenti** (*labour*) in lines 68, 70, 74, 82 and 90; in the noun **tisebenti** (*labourers*) in lines 70, 75, 76, 77, 79, 80, 81, 85; in synonymy is indicated in the phrase **afakeliso** (*look careful*)/**loko kutsiwa luhlolo lwemsebenti** (*this activity is sometimes called in buciko (skills)/ nemakhono (abilities)*). A further lexical choice is antonym displayed in lines 70-71 and 73-76 **in uma tisebenti tiba semsebentini kodvwa tingenti lutfo...** (*if labourers are not working while they are on duty...*): **kute tisebente ngalokwenele** (*in order to maximise the productivity of the work force...*). The next section discusses on theme-rheme in exposition texts.

Theme-rheme in expositions

Definitions of theme-rheme were stated in the analyses of reports, a consequential explanation and procedural recount. Theme refers to the first part of a sentence whereas rheme is the rest of the sentence. We will explore the use of theme in text 5.2, using one paragraph.

<p>[2]Incenye yesibili lemcokwa kutekulima ngumsebenti.</p> <p>[3]Umsebenti usho tisebenti tasefamini letiholelwako (njalo ngenyanga) netimbadalo (onkhe malanga noma njalo ngeliviki) kubuyisela emsebentini lebawentile.</p> <p>[4]Tisebenti tiletsa ingucuko ekuphumeleleni kwemsebenti wasefamini.</p> <p>[5]Umsebenti ngulenye yetintfo letibitako eluhlangotsini lwetekulima.</p> <p>[6]Ngesikhatsi kuhlelwa tigaba temsebenti efamini, umphatsi kumele ahlolisise ngeluhlobo lwemsebenti lanalo bese uyancuma ngesibalo setisebenti lekatidzingako, lizinga lekutibophelela, emaholo kanye netindzawo tekuhlalisa tisebenti takhe.</p> <p>[7]Umphatsi udzinga kulawula tisebenti takhe, atente tihlale njalo tikhutsatekile, aphindze agcine budlelwano lobuhle nato.</p>	<p>The second production factor in agriculture is labour. Labour refers to farm workers (labourers) who are paid salaries (monthly payments) and wages (daily or weekly payments) in exchange for their work. Labour has a significant impact on the success of a farming enterprise. Labour is one of the largest cost items in the agricultural sector. During the planning phases of a farming enterprise, the manager has to consider what labour is available and decide how much labour he needs, the skills that the workers need to have, the amount of responsibility they will be given and the wages and accommodation that will be provided. The manager also needs to direct his workers, keep them motivated and maintain good relations.</p>
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Text 5.2 demonstrates dominant use of unmarked and topic sentence themes as seen in lines 3,4,5 and 7 with the nouns **tisebenti** (*workers*) and **umphatsi** (*manager*); in line 2, the point of departure is a numeral classifier **incenye yesibili** (*the second production*) and the conjunction of time in 6] **ngesikhatsi** (*during*) which exemplifies a marked theme. In expositions, most themes are unmarked. This takes us to language of appraisal employed in exposition texts.

5.2.2.2.3. Interpersonal metafunction: The appraisal system

It has been stated in the analyses on discussions that the appraisal is divided into three categories: *attitude*, *graduation* and *engagement*. These sub-sections will be analysed in turn.

The resources of attitude are concerned with the expression of emotional reaction which involves *Affect*, to evaluate the worth and quality of things and processes *Appreciation* and *judgement* which has to do with judging the behaviour of others.

In text 5.2 attitude is expressed where the writer uses negative viewpoints to express the feelings of others in lines 24-26 **Tisebenti tesikhashana ngutona letite kakhulu kuvikeleka kwemsebenti.** (*Casual workers have the least job security*) and in lines 31-33 **Bete tivumelwano nemcashi, futsi ngekubekwa kwalomtsetfo kute lebakuzuzako ngaphandle kwemholo waleso sikhashane.**

(They do not have contracts with their employer and are not covered by certain provisions of the Act).

Resources of positive appreciation are also displayed in lines 6-7 **Tisebenti tiletsa ingucuko ekuphumeleleni kwemsebenti wasefamini.** (*Labour has a significant impact on the success of a farming enterprise*).

Judgement is made in relation to responsibilities that should be taken by a manager towards workers (farmers). For example, 9-15 **Ngesikhatsi kuhlelwa tigaba temsebenti efamini, umphatsi kumele ahlolisise ngeluhlobo lwemsebenti lanalo bese uyancuma ngesibalo setisebenti lekatidzingako...** (*During the planning phases of a farming enterprise, the manager has to consider what labour is available...*) and in lines 74-75 **Umsebenti kufanele unakekelwe ngekuophelela ngoba uyintfo lebita kakhulu efamini.** (*Labour must be managed carefully because it is one of the biggest expenses on a farm*).

The strength of feelings, opinions and judgements can be raised or lowered through the resources of graduation. For example, in lines 24-25 **Tisebenti tesikhashana ngutona letite kakhulu kuvikeleka kwemsebenti.** (*Casual workers have the least job security*).

Further, the engagement system is realised in lines 26-31 **Ngekubeka kwemitsetfo ya (1997) legadze kucashwa kwetisebenti...** (*According to the Basic Conditions of Employment Act...*). The writer is trying to persuade the reader to openly negotiate with those in charge of the stipulation of the basic conditions of employment.

The writer's evaluations display an awareness of the social values of community, drawing on institutionalized criteria to evaluate critique and challenge as evidenced, for example, in lines 8-9 **Umsebenti ngulenyeye yetintfo letibitako eluhlangotsini lwetekulima.** (*Labour is one of the largest cost items in the agricultural sector*) and in lines 17-18 **...aphindze agcine budlelwano lobuhle nato.** (*...keep them motivated and maintain good relations*).

The exposition text in 5.2 has demonstrated resources of interpersonal metafunction, more especially attitude through affect, positive appreciation and judgement. Sometimes graduation is also involved, raising or lowering the strength judgements. The text adopted a heterogloss (open to other voices and possibilities) type of engagement.

5.3. CONCLUSION

Both argument texts (discussion and exposition) have demonstrated resources of the ideational metafunction, textual metafunction and some resources of the interpersonal metafunction. In other words, it is important for learners to learn some principles for proposing and structuring scientific argument. The following chapter wraps up this writing with a conclusion.

CHAPTER SIX

SUMMARY AND CONCLUSIONS

6.1 SUMMARY OF STUDY

The study was conducted to explore writing in Siswati across the curriculum for grade twelve learners whose first language is Siswati, following the general theoretical literature on genre-based approach. The realization of the properties of genre-based writing for Siswati speaking learners has been investigated, particularly in the analysis of compositional reports, classifying reports, consequential explanations, procedural recounts, discussions, and expositions from a South African grade twelve agricultural science textbook, a 2013 publication. These texts were analysed in chapters four and five, mainly in regard to the ideational, textual, and interpersonal functions of language. The study sought to answer six questions as stated in section 1.3, that were based on the main objectives stated in chapter one:

- (i) The study investigated the question of the extent to which grade twelve learners with Siswati as their first language can use their home language for the purpose of writing in their content subjects in a bilingual education context, where English being their second language or additional language is the prescribed medium of instruction.
- (ii) The study addressed the question of how writing skills in genre-based pedagogy for learners whose home language is Siswati can be realized in their content subject writing with regards to the subject, agricultural science.
- (iii) This study explored prominent genres that learners can consider in their writing of content subjects in the home language, Siswati, so that they express different academic and social purposes for writing in academic contexts.
- (iv) The study examined the extent to which genres in the Siswati home language can realize all three metafunctions of language within the genre-approach to writing..
- (v) An evaluation was made to investigate the question on whether language planning and policy accommodates the instruction of Siswati as a home language in the South African education system.
- (vi) Lastly, the study addressed the question on the teaching strategies required to fill the gap in writing development in a range of curriculum areas across a variety of genres in Siswati as a first language.

6.2 MAJOR FINDINGS OF RESEARCH

6.2.1 Study review

In chapter one, the topic of the study: “Genre-Based Approach to Writing across the Curriculum in Siswati in South Africa” was introduced. Chapter one has stated the aims and purpose of the study, which were to investigate skills of academic writing for grade twelve learners within the approach of genre-based literacy. This chapter also provided a theoretical framework which invoked in particular research by five scholars based in systematic functional linguistics. It has been stated that the Siswati first language learners in grade twelve receive instruction in a foreign language and yet in genre teaching learners need to learn through their first language which in this case, is Siswati.

This chapter reviewed practice relating to genre-based teaching, through which teachers can be informed how to use genres in their teaching such as compositional reports, classifying reports, consequential explanations, procedural recounts, discussions, and expositions, which were analysed in this writing. The chapter stated six key research questions which are addressed in this study. The methodology was also provided, which involved the translation of six Siswati texts from a grade twelve agricultural science book. The aim was stated for these texts to be investigated according to purpose, schematic structure, organisation of information, and language components. The chapter identified the resources of the ideational, textual, and interpersonal function of language. The chapter also gave the scope and delimitation of the study, which is constant reliance on other scholar’s research. Lastly, the chapter provided the organisation of the study which outlined all six chapters.

In chapter two, the literature review was done on principles of the genre-based approach in teaching and learning. This chapter explored the literature on knowledge about language, knowledge about pedagogy, and a functional approach to writing which involves types of genres that can be taught and written in each discipline, language components as postulated by several scholars, the implementation of genre in the classroom, and ways of scaffolding learners. The chapter has also provided the theoretical framework drawn from the functional theory of language emphasising two levels of contexts: context of culture and context of situation which are both significant in a functional model of language. The context of situation involves the field, tenor, and mode, and considers three functions of language: the ideational function, the interpersonal function, and the textual function of language.

In chapter three, various linguistic components of genre have been discussed as researched by various scholars. This chapter has theorised language components required in writing in agricultural sciences in secondary school.

Chapter four presented an analysis of four informative genres in agricultural sciences, namely, the compositional reports, classifying reports, consequential explanations, and procedural recounts, with respect to their purpose, schematic structure, organisation of information, ideational, textual, and interpersonal resources of language.

Chapter five analysed two argumentative genres namely, the discussion and exposition in agricultural sciences with respect to their purpose, schematic structure, organisation of information, ideational, textual, and interpersonal resources of language.

Chapter six discussed the research results of the analysis, the major findings and the recommendations. The chapter emphasised the importance of a theoretical framework of teaching writing to grade twelve Siswati learners for informing and argumentative science essays, following the proposals of Christie and Derewianka (2008:6-29) for writing main genres across the curriculum, and raising learners' awareness of the text types, their characteristics in terms of purpose, design, organisation, and language resources.

6.2.2 Language-in-education policy with English only as medium of instruction versus bi-/multilingual policy

As indicated in the main objectives of this thesis, the study explored linguistic resources of Siswati for writing in school agricultural science. Hence, the central issue investigated in this study is the potential significance of genre-based literacy for language-in-education, in particular, linguistic resources for writing by grade twelve learners whose first/home language is Siswati, in a South African bilingual education context. This issue is a major concern in the present South African education system.

In section 1.7.2, this study discussed the national South African language policies and the 1997 Department of Education Language in Education Policy principles, some of which have hindered education access or the learners' performance.

In addition, the study discussed views on bi-/multilingual education to indicate the significance of the research presented here in relation to the South African education context. Otwinowska and De Angelis (2014:12ff) and Sierens and Avermaet's (2014) view multilingualism as a positive phenomenon, giving evidence that having two or more languages positively affects cognitive

development and the process of acquiring additional languages. Sierens and Avermaet (2014) believe that education in the mother tongue provides more effective basis for learning the language of schooling than total immersion. Second, native language education would improve the wellbeing of children from migrant backgrounds by supporting positive identity construction which has positive impact on school results. Third, native languages survive longer when used as languages of schooling. They stated that in many contexts of monolingual education, the home language has no place in the classroom and in the school and is not included in the curriculum.

This study has attended to the question of the extent to which genre-based instruction in Siswati as a language subject can positively impact on genre-based writing of grade 12 learners with Siswati as first (home) language across the curriculum. The study assumed the framework of genre-based writing proposed by Christie and Derewianka (2008), Feez and Joyce (1998), Knapp and Watkins (2005), Martin and Rose (2008), and Rose and Martin (2012). To achieve the main aim of examining writing in agricultural science, the study examined six texts: compositional reports, classifying reports, consequential explanations, procedural recounts, discussions and expositions whose research results will be provided below.

Through a genre analysis, the study explored linguistic resources that grade 12 learners could employ in effective writing using the Siswati language system in agricultural science texts. The main findings were genre-specific and were summarized within the respective previous chapters. For each text the findings included purpose, generic structure, and language components considering the three functions of language: ideational, textual, and interpersonal function of language, with reference to Siswati. This section will synthesize the theoretical and empirical findings to address the six research questions of the study.

6.2.3 Major Findings of research relating to genre-based learning and teaching

The research findings were based on the analysis of six agricultural science texts with the following titles:

- (i) The compositional report text: **Litfumbu lekudla letilwane tekufuywa** (*The alimentary canal of farm animals*)
- (ii) The classifying report text: **Titfo tangasense** (*The reproductive organs*)
- (iii) The consequential explanation text: **Kunakekela netimilo** (*Handling and behaviour*)
- (iv) The procedural recount text: **Kulungiselela luhlelo lwebhizinisi** (*Preparing a business plan*)
- (v) The discussion text: **Kuguculwa kwetakhiwo tetilwane** (*Genetic modification of animals*)
- (vi) The exposition text: **Tisebenti** (*Labour*)

The following findings support the view that the genre-based approach can make an impact to learners' writing skills. In chapters four and five the findings demonstrated linguistic features that grade twelve learners can employ in writing in agricultural science with regards to the above listed types of texts. The texts were explored in terms of the ideational function of language, the textual function of language and the interpersonal function of language. Further, these functions of language were sub-divided into different categories as illustrated in the following table:

Table 3.14 A summary of Ideational, Textual and Interpersonal resources.

Ideational Metafunction	Textual Metafunction	Interpersonal Metafunction
1. Logical function <ul style="list-style-type: none"> • <i>types of clauses</i> • <i>clause combinations</i> • <i>dependency relations</i> • <i>-logical relations</i> 2. Experiential function <ul style="list-style-type: none"> • <i>processes</i> • <i>participants</i> • <i>circumstances</i> 	1. Cohesion <ul style="list-style-type: none"> • <i>grammatical cohesion</i> • <i>reference</i> • <i>substitution</i> • <i>ellipsis</i> • <i>conjunction</i> • <i>lexical cohesion</i> <ul style="list-style-type: none"> • <i>reiteration</i> • <i>synonymy</i> • <i>antonymy</i> • <i>hyponymy</i> • <i>meronymy</i> • <i>homophony</i> • <i>inclusion</i> • <i>collocation</i> 2. Theme-rheme	1. Attitude <ul style="list-style-type: none"> • <i>affect</i> • <i>appreciation</i> • <i>judgement</i> 2. Graduation <ul style="list-style-type: none"> • <i>upgraded</i> • <i>toned down</i> 3. Engagement <ul style="list-style-type: none"> • <i>monogloss</i> • <i>heterogloss</i>

The analyses presented in this thesis involved all the above linguistic features which were investigated from each text. The main findings can be summarised as follows:

6.2.3.1 Findings on Compositional texts

In section 4.2.1.1, it was demonstrated that the purpose of the report was to classify and describe **litfumbu lekudla letilwane temfuyo** (*the alimentary canal of farm animals*) of which the generic structure of the compositional report displayed two stages:

- The **classification stage** concerns the classification of the whole.
- The **description stage** is concerned with the description of parts of wholes.

The organisation of the compositional report was also investigated in this section and it was demonstrated that information in writing a compositional report follows the stages above, starting

with the general classification and then the parts to be described are put in sub-headings. Information for each part was gathered and discussed in one paragraph.

Further, section 4.2.1.1, exemplified characteristic language components of compositional reports which included the following properties:

- *Universal present tense or relational verbs;*
- *Action verbs were used metaphorically;*
- *Adjectives;*
- *Adverbial phrases;*
- *Time markers;*
- *Literary descriptions;*
- *Similes.*

In section 4.2.1.2.1, the analysis on *ideational resources* for compositional reports was done in terms of the logical relationships of the Siswati language system. This analysis demonstrated a variety of linguistic resources representing a wide range of clause types and clause combinations that create particular ideational meanings and logical relations among clauses. Clause types identified from the compositional text were complex, including infinitive, subjunctive, indicative, and situative clauses. In some cases one clause projected another, while others were identified as initiating and expanding clauses. These clauses create logical relations of addition, purpose, attribute, accompaniment, comparison, alternative and emphasis, exemplifying the following conjunctions, i.e. **ne-** (*and*), **bese** (*and then*), **noma** (*or*), **njenge** (*as*), **kute** (*to*), **ngesikhatsi** (*when*) and the copulative prefix **ngu-** (*is*).

Regarding the *experiential* metafunction, the analysis demonstrated that processes were often material, to do with functions **kuphatselene** (*it is concerned*) but some relational processes were also identified which define **liphindze libitwe** (*it is also called*). Behavioural processes were exemplified in describing purposes **kute kulangabeteke** (*in order to meet*) while existential processes represented existence **lagcineke** (*which are stored*).

The participants realized were either nominal groups or pronouns represented by the subject concord, AgrS, and the object concord, AgrO, referring to pronominal meanings of specific noun classes. Goal participants were realized in infinitives and in nominals. Other participants included those of theme, actor, carrier, participants, experiencer and impersonal theme participants. Technical lexis was not involved because in the Siswati language system terms are described and explained. Post-modifiers were often realized in possessive phrases, relative phrases, relative

clauses, relative diminutive phrases, and in prepositional phrases. Pre-modifiers were realized in demonstratives.

Circumstances of place were common though other types were found, including manner, and condition. Some circumstances were of accompaniment (committative) while others involved grammatical metaphor, realising the circumstance of place. *Grammatical metaphor* was commonly realised through the use of passive verbs, demonstrative nouns, and in infinitive verbs.

Textually, topical themes were often unmarked and represented by paragraph headings with some instances of marked themes as demonstrated in section 4.2.1.2.2. Text 4.1 made frequent use of images as in figures 2.1, 2.2, 2.3, and 2.4. The text exemplified the use of macroTheme and hyperTheme supported by headings and sub-headings.

Text 4.1 also displayed patterns of *grammatical and lexical cohesion*. Grammatical cohesion was exemplified in terms of reference which involved *anaphoric, cataphoric, homophoric* and *bridging reference*. Presupposed relations were indicated by information in brackets. Frequently used lexical choices included use of *reiteration* of noun phrases, *synonymy, antonymy, hyponymy, meronymy*, and *collocation* which was realized in noun phrases.

In section 4.2.2.2.3, it was demonstrated that the *interpersonal* function of language in the grade twelve compositional agricultural science text used the third person approach and was attitudinally neutral because reports are mainly concerned with describing things that are true all the time. Engagement with the opinion of others was not involved. The next section will discuss findings on the genre of classifying reports.

6.2.4 Findings on classifying reports

A classifying report was examined in section 4.2.2.1, stating that its *social purpose* was to give information about **titfo tangasense** (*the reproductive organs*) and describe parts of **luhlelo lwetitfo tangasense letindvuna** (*the male reproductive system*) and **luhlelo lwetitfo tangasense taletinsikati** (*the female reproductive system*). The generic structure of the classifying report displayed two stages:

- The **classification stage** which is the stage where the writer classifies different types of things.
- The **description stage** is where parts of things are described.

The classifying stage first classified **luhlelo lwetitfo tangasense letindvuna** (*the male reproductive system*) as consisting of **emasendze** (*the testes*), **umpipi** (*the penis*), **emadlala** (*male glands*) and

umbhobho wesidvodza (*the vas deferens*). Second, **luhlelo lwetitfo tangasense taletinsikati** (*the female reproductive system*) was classified as consisting of **tibilini temacandza** (*a pair of ovaries*), **sibelelfo** (*the uterus*) and **litfumbu lekwengcisa licandza** (*the fallopian tube*). Hence, in the description stage all these parts were described.

In section 4.2.2.1.2, it was demonstrated that *the organization of information* in the classifying report was structured such that it was specific with one kind of topic “**Titfo tangasense**” (*The reproductive organs*), the topic throughout. A general statement introduces the topic of the text. In the description stage, the topic sentence of each descriptive paragraph informs the reader about the category of information that is to be described in the paragraph. However, as regards the female organs, the writer did not organize information into distinct headings.

Further, in section 4.2.2.1.1, the *characteristic language components* of classifying reports which included the following properties:

- *The present tense*;
- *Relational verbs* realised in subject concords and copulative prefixes;
- *Action verbs* are used when describing behaviours/uses, in literary and common sense descriptions. Action verbs were used metaphorically to create effect;
- *Adjectives* are used to add extra information to nouns;
- *Adverbs and adverbial phrases* are used in descriptions to add extra information to verbs or about manner, place and time;
- Literary description uses a range of devices to create effects such as similes and personification.

In section 4.2.2.2.1, *the ideational metafunction* of the classifying report was analysed and demonstrated some single clauses, indicative, subjunctive, situative, with initiating and expanding clauses. In clause combination, various logical relations were created, i.e. of emphasis in the verb in the copulative demonstrative **ngutona** (*they are the ones*); of alternative in **ngesikhatsi sekuhlangana noma kulalana** (*during mating or copulation*); of purpose in the use of the conjunction **kute** (*to*). The typical utilised conjunctions involved were the same as those occurring in compositional reports.

Regarding the *experientially metafunction*, common processes in classifying reports were *relational*, often realized in copulative prefixes and used for emphasis. *Abstract material and behavioural processes* described behaviour.

The analysis demonstrated that in classifying reports participants were those of *carrier*, *attribute*, *theme*, *goal*, and *cause* participants, often represented by the AgrS. *Actor* participants were realized in possessive phrases. Like in compositional reports, post-modification was realized in possessive phrases, demonstratives, relative predicates, adverbs of manner, and in associative predicates.

Circumstances were realized in the use of adverbs and prepositional phrases and often expressed place, though other types were found, including time which involved *grammatical metaphor* in the form of locative phrases and possessive infinitives.

In section 4.2.2.2.2, *the textual function* of language in the classifying report demonstrated patterns of grammatical and lexical cohesion. The commonly used form of grammatical cohesion was reference: *anaphoric* reference realized in pronominal and relative concord, *cataphoric reference* indicated by the AgrS, and *homophoric reference*. *Substitution* was exemplified in noun phrases. Patterns of lexical choices included noun *repetition*, *synonymy*, *antonymy*, *collocation*, *hyponymy*, and *meronymy*.

With regards to *theme-rheme* in classifying reports, the text displayed the occurrence of dependent clauses with marked themes. The text also indicated unmarked themes where the theme choices were topical sentence themes. Other unmarked themes occurred in the form of prepositional phrases.

In section 4.2.2.2.3, it was stated that *the interpersonal function* of the classifying reports mainly employed the third person and was attitudinally neutral. Engagement with the opinions of others in the text was not evident since the report simply described the male and female reproductive systems. The consequential explanation will be discussed in the following paragraphs.

6.2.5 Findings on consequential explanations

A consequential explanation text was investigated in 4.2.3.1, stating that its *social purpose* was to explain why things occur, in this text, why animal handling is important. *The generic structure* of this consequential explanation displayed two stages:

- The **phenomenon cause stage** in which the outcome is identified, giving any necessary background and the preview of the reasons.
- The **explanation of reasons stage** in which the writer explains the reasons for the outcome by ordering the reasons from the most important to the least important.

The phenomenon stage explained causes and results of handling animals and knowing about their behaviour. The explanation stage exhibited two phases, in that it first explained when animals need

to be handled, i.e. **Ngesikhatsi seluhlelo lwetemphilo yetilwane lapho kudzingeka kutsi tiniketwe imitsi, noma ngesikhatsi sekuhlola tifo noma kulimala** (*During an animal health programme when medication needs to be administered, or when animals are inspected for disease or injury*) and then the behaviour of animals, i.e. **Letinye tilwane atisito tekufuywa atifundziseki tilunga esigangeni.** (*Some breeds of animals have a wilder temperament that makes them more difficult to handle*).

In section 4.2.3.1.2, *The organization of information* in consequential explanations demonstrated the explanation of reasons for the outcome through the ordering the reasons from the most important to the least important. Hence, in text 4.3, information was ordered from the health aspect to the number of people that can handle animals.

In section 4.2.3.1.1, *the characteristic language components* of the consequential explanations were as follows:

- *Dependent time clauses;*
- *Time phrases;*
- *Linking devices for showing cause and effect* were displayed;
- *Dependent clauses with the linking word “because”;*
- *Clause phrases beginning with “because”;*
- *Cause verbs;*
- *Devices for pinpointing location;*
- *The present, past or future tense;*
- *Processes or verbs* were used where one process or verb is linked to other processes or verbs so that a logical sequence is established.

In the analysis presented in section 4.2.3.2.1, *clause types and logical relations* were displayed including complex clauses with deficient verbs in the potential mood. Dependant clauses were exemplified with instances of subjunctive clauses joined by two conjunctions **noma** (*or*), realising the circumstance of alternative to the preceding clause and initiating clauses. The conjunction **kute** (*to*) demonstrated a relation of reason. The nominal group **onkhe malanga** (*every day*) realised a circumstance of extent (frequency) to the process of handling dairy animals.

Regarding the *experiential metafunction*, the consequential explanation often displayed material and mental processes, to do with reasons. Participants were realized in dense nominal groups and involved impersonal actor participants, goal participants, implicit actor, theme participants, represented by AgrS **ti** (*they*), participant instrument in the noun phrase **lamathulusi** (*the tools*),

benefactor **tilwane** (*animals*) and phenomenon **inkwele** (*a whistle*). The text did not involve technical lexis. Common post-modifiers included prepositional phrases, relative predicates, possessive phrases, relative clauses, adverbs of manner **kahle** (*well*), demonstrative pronouns, and emphatic pronouns. Pre-modifiers occurred in the form of quantifiers, i.e. **onkhe** (*every*).

Circumstances were included in the findings on clause types and clause relations. *Grammatical metaphor* appeared in forms of infinitival passive verb phrases, passive verbs, possessive infinitival phrases, infinitive verbs, and in possessive noun phrases.

In terms of the textual function, the text analysed in section 4.2.3.2.2, displayed that topical themes were marked or unmarked in giving reasons. The text used headings, i.e. **kunakekela** (*handling*) and **timilo** (*behaviour*) together with diagrams as in figures 1.12, 1.13, 1.14, 1.15, 1.16, 1.17, 1.18, and 1.19.

Text 4.3 also exhibited patterns of *grammatical and lexical cohesion*. Grammatical cohesion was realised in forms of reference, i.e. anaphoric reference, bridging reference, cataphoric reference, homophoric, and exophoric reference. Lexical cohesion was represented through repetition, synonymy, antonymy, and hyponymy. Patterns of collocation were also exemplified. Text 4.3 demonstrated marked and unmarked themes of time.

The *interpersonal function* of the consequential explanation was explored in section 4.2.3.2.3, where the third person approach was used. The use of modality was exemplified, which in the Siswati language system indicates possibility. The verbal process was used instead of the passive voice, and adverbs were used as a resource of graduation by a graded lexical item. Engagement with the opinions of others was not evident. The next paragraphs bring findings on procedural recounts.

6.2.6 Findings on procedural recounts

A procedural recount was analysed in section 4.2.4.1, whose social *purpose* was to present steps taken in **Kulungiselela luhlelo lwebhizinisi** (*Preparing a business plan*). *The generic structure* of this text displayed the following four stages:

- The **purpose stage**, in which the scientific purpose is stated.
- The **background stage**, in which the writer gives information the reader needs to know concerning the topic of the purpose.
- The **record of events stage** is concerned with the list of actions that happened.
- The **conclusion stage**, in which the findings of the experiment are stated. Even if an experiment has no findings, it is important to state that there were no findings and give reasons.

Further, in section 4.2.4.1.1, *characteristic language components* of procedural recounts were investigated and the main findings made are as follows:

- *Thinking verbs* in present tense intensive infinitive verbs;
- *The present tense* was used when it is thought that things are true for all universes;
- *Future tense verbs* and *question words* were used in the planning stage;
- *Noun groups* appeared in the method stage;
- *Action verbs* in the present tense and in the form of imperatives;
- *Times markers* were identified which tell the reader the order of the steps;
- *Sometimes the sentence begins with a word, phrase or clause which tells the reader when to do something;*
- *Sometimes the sentence begins with a word, phrase or clause which tells the reader how to do the step;*
- *The passive present tense* is used in the conclusion stage;
- *General nouns* were used;
- *Dependent clauses* which tell us how long we should do an action;
- *Conditional connectives* were used to provide a premise upon which a command or statement is based;
- *Adverbs* were often used to qualify verbs and to provide extra information about how a task should be completed;
- *Packaging nouns* were used in procedural recounts;
- *Direct and indirect address* was employed;
- *Modality* appeared to lessen or lighten the degree of obligation in completing a task.

In section 4.2.4.1.2, *the organisation of a procedural recount* was investigated and *the aim* clearly stated the purpose of the scientific experiment as seen in the heading of the text. The aim also included advice about materials or equipment to be used or what to do. This was written as a sentence with three clauses. It was mentioned that it is crucial for results to be stated before the conclusion which reveals what was established.

In section 4.2.4.2.1, *the ideational metafunction* of language in procedural recounts was explored as regards two phases: logically and experientially. In terms of the logical metafunction text 4.4 demonstrated the occurrence of equal clauses of equal dependency, independent interrogative clauses, subjunctive clauses, relative clauses, and deficient complex clauses. In the combination of clauses various meaning relations were created through the use of different conjunctions and deficient verbs. The conjunction **phindze, na/ne** (*and*) created a relation of addition; **noma** (*or*)

alternative; **na** and **nabo** (*with*) accompaniment; **kuze** (*in order to*) purpose; **sibonelo** (*for example*) exemplification; **kepha** (*although*) concession; **kutsi** (*as to*) result; **kutsi** (*if*) condition and the prefix **nge-** (*by*) created a meaning relation of aboutness.

Regarding the *experiential metafunction*, the procedural recount was analysed with respect to processes, participants and circumstances. Commonly used processes included material processes, realised in relative phrases and in imperatives. Abstract material processes also occurred in copulative relative verbs. Verbal processes were displayed in future tense verb phrases with mental processes in infinitive verbs, existential processes, mental, and obligation processes.

The analysis demonstrated that participants responsible for actions in the procedural recount were implicit and that the goal was realised in subject concords which included participant possessor, possessed, recipient, addressee, goal, actor, theme, where sayer and addressee were often realised in the AgrS. Post-modification occurred in the form of relative phrases, possessive phrases, prepositional relative phrases, in adjuncts, and in interrogative noun phrases. *Circumstances* of place were commonly realised in interrogative words and some circumstances of manner and result. *Grammatical metaphor* was demonstrated in noun phrases, relative phrases, possessive phrases, subjunctive verb phrases, future tense verb phrases, negative passive situative clauses, and in prepositional verb phrases.

In section 4.2.4.2.2, *the textual function* of the procedural recount was investigated as regards two phases i.e. cohesion and theme-rheme. Patterns of cohesion were explored in terms of grammatical and lexical cohesion. Grammatical cohesion was displayed through reference, i.e. anaphoric pronominal reference, cataphoric reference, and exophoric reference. Verbal substitution and conjunctions also occurred. Patterns of lexical cohesion were those of repetition of noun phrases, synonymy, antonymy, collocation, and hyponymy.

With regards to *theme-rheme*, the procedural recount illustrated marked themes of condition, unmarked topical themes, unmarked interrogative themes in the Siswati translation, interrogative themes at the initial position of a sentence and at the end of the sentence, and in the form of imperative sentences.

In the text analysis in section 4.2.4.2.3, *the interpersonal function* of language in the procedural recount displayed resources of graduation realised in intensifying adverbs like in consequential explanations. The findings on the analysis of the discussion genre are given in the following paragraphs.

6.2.7 Findings on discussions

The discussion text in 5.1 was analysed in section 5.2.1.1, of which *social purpose* was to discuss two sides of the issue **Kuguculwa kwetakhiwo tetilwane** (*The genetic modification of animals*).

The generic structure displayed six stages:

- **The background stage** which provides any information the reader needs in order to follow the arguments;
- **The issue stage** which identifies the issue and summarises the debate;
- **The argument stage on one side** which gives arguments for the issue;
- **The argument stage on the other side** which develops arguments against the issue. Both sides of arguments have to offer any factual information, evidence, description or explanation with respect to each argument;
- **The thesis stage** which reviews evidence before conclusion is offered;
- **The resolution stage** in which the recommendation or judgement is presented as the most logical conclusion.

In section 5.2.1.1.1, the text demonstrated particular characteristic *language components* which included the following:

- *Linking words;*
- *Language giving evidence;*
- *Abstract packaging nouns;*
- *Language of cause and effect;*
- *Persuasive language;*
- *Language that assesses;*
- *Language that appeals;*
- *Objective language.*

The organization of information, in the text analysed in section 5.2.1.1.2 displayed that the text was structured in a way demonstrating that the first paragraph for arguments pursued the matters referred to in the issue, offering a statement in one clause. The writer detached himself from the issues by attributing the authority to others while displaying capacity for engagement with others' point of view. In the subsequent segment outlining arguments against the proposition, the writer starts to personalise the discussion, though giving some authority to his claims. The writer posed a rhetorical question before the conclusion **Kwamukelekile yini kutsi umuntfu longayidli inyama**

adle sitjalo lesinelufuto lwenhlanti. (*Is it acceptable for a vegetarian to eat a plant that has a fish gene*)?

The *ideational function* of language in the discussion text was explored in section 5.2.1.2.1, where it was demonstrated that the logical function displayed single complex clauses, initiating clauses, passive clauses, sentential object clauses, infinitive clauses, temporal clauses, and relative clauses. In the combination of these, clause relations of purpose, attribute, and time were created. Post-modification illustrated possessive phrases, relative phrases, prepositional phrases, adjectives, noun phrases, and reduplicated prepositional phrases. Common conjunctions were coordinating conjunctions of addition and subordinating conjunctions of cause and time. With regards to experiential meta function of language the discussion text demonstrated processes of abstract material, material, existential, mental, relational, and behavioural processes. Participants varied between actor, implicit actor, theme, benefactor, sensor, and goal while circumstances were those of place and manner. *Grammatical metaphor* was displayed in demonstrative noun phrases, passive verb phrases, locative noun phrases, associate infinitive verb phrases, infinitive passive verb phrases, verb phrases, and in prepositional demonstrative phrases.

In the text analysed in section 5.2.1.2.2, *the textual function* of language was shown to be concerned with the internal organisation of the discussion text. In terms of grammatical choices the text displayed reference (anaphoric, homophoric, endophoric, anaphoric and cataphoric), substitution, ellipsis and conjunction. Lexical choices of communicative purposes were repetition, inclusion, synonymy, antonymy, hyponymy, meronymy, and collocation.

Properties relating to *theme-rheme* were also analysed, which modelled unmarked themes in the argument for one side, while on the argument for the other side, themes were both marked and unmarked with frequent use of sentential adjuncts.

The interpersonal function of the discussion text was examined in section 5.2.1.2.3. Attitude was expressed, where the writer described the feelings and views of others. Resources of negative and positive appreciation were also displayed in the text. Judgement was made in relation to the implications of genetically modified crops. Further, the writer used engagement resources to construe an authorial presence, that is, the discussion was opened up to accommodate other voices (heteroglossic). Finally, findings on expositions are discussed below.

6.2.8 Findings on expositions

The exposition text in 5.2 was analysed in section 5.2.2.1, whose *social purpose* was to argue for **Tisebenti** (*Labour*). *The generic structure* of the exposition displayed three stages:

- The **thesis stage** which introduces the issue and the writer's point of view.
- The **arguments stage** in which a series of arguments supporting the thesis are offered. The arguments contain any factual information, evidence, description or explanation which supports the thesis.
- The **reiteration stage** in which a stronger and more direct statement of the thesis introduced in the first stage is given. Sometimes expositions begin with a background stage which provides any information the reader needs in order to follow the arguments.

In section 5.2.2.1.1, the exposition text demonstrated *characteristic language components* which some are similar to those of discussions as both are arguments. The characteristic *language components* included the following:

- *Facts and evidence;*
- *Abstract packaging nouns;*
- *Language of cause and effect;*
- *Language of judgement and evaluation;*
- *Language that appeals;*
- *Emotional and colourful language;*
- *Impersonal voice;*
- *Temporal connectives;*
- *Nominalisation.*

In terms of the text analysed in section 5.2.2.1.2, the *organization of the exposition* text followed the above-mentioned stages. However, the thesis was not accompanied by elaboration or any supporting statement in the same sentence. Instead, the thesis was followed by the argument stage which may bring one point and elaboration. In most cases these are contained in one sentence.

The *ideational function* of the exposition text was explored in relation to which the logical function demonstrated varying types of clauses, i.e. single independent clauses, infinitive clauses, subjunctive clauses, initiating and expanding clauses, and temporal clauses. Combinations of these clauses created meaning relations of emphasis, matter, attribute, addition, accompaniment, time, and contrast.

With regards to the experiential function, in section 5.2.2.2.1, the exposition displayed varying processes including relational, verbal, behavioural, existential, and material processes. Participants involved included agent, addressee, experiencer, carrier, goal, and actor. These participants were post-modified by possessive phrases, copulative pronouns, comparative conjunctions, adverb

prepositional phrase, locative prepositional phrases, complements, adverbs, relative phrases, and diminutive possessive phrases. *Circumstances* included those of aboutness, angle, place, time, and comparison. *Grammatical metaphor* was realised in the form of noun phrases, infinitive verb phrases, possessive noun phrases, and in associate noun phrases.

In section 5.2.2.2, *the textual function* of the exposition text illustrated grammatical resources of cohesion, i.e. anaphoric and homophoric reference, and verbal substitution. The text employed coordinating conjunctions of addition and subordinating conjunctions of exemplification, condition, comparison, and purpose. Themes are dominantly unmarked in the form of topic sentences.

The *interpersonal function* analysis in section 5.2.2.3 displayed attitude where the writer used negative viewpoints to express the feelings of others. Resources of positive appreciation, judgement, and graduation were expressed in text 5.2. Further, the engagement system was realised. The summary will next continue with presenting the theoretical framework and language-in-education policy implications of this study.

6.3 THEORETICAL FRAMEWORK AND POLICY IMPLICATION

With regards to the theoretical framework adopted for this study, the analysis has proven that the Siswati language system does demonstrate resources of the ideational, textual, and interpersonal functions of language which sometimes occur in different lexico-grammatical realizations than in the English language system. The interpersonal function was displayed in argumentative texts which included discussions and expositions. The theoretical framework implicated considerations that should be taken in the process of language planning and policy statements and the overall curriculum at large, that is, policy statements need to reflect the present framework. In the next paragraphs, recommendations will be stated.

6.4 RECOMMENDATIONS AND ARREARS OF FUTURE RESEARCH

With regards to the contribution made in this study concerning genre-based teaching and learning in multilingual contexts, the South African education department is recommended to consider the following:

1. It is recommended that the Department of Education be well informed of the recent theories of teaching writing, i.e. the genre-based approach to teaching and learning. In addition, to be aware that as much as theories can inform best practice, they do not function unless directly transferred from the global to local contexts, that is, theories are required to be contextualized. They inform to function practice properly. Thus, Botha, Sinclair, and Winckler (1992:93) in

their article “Linguistics for the language professionals 1: part b”, proposed a theory of relevance where there are major aspects a reader has to consider, including the author, the target audience, the cognitive world, and things that have been relevant for the audience. In accordance, Bamgbose (2014:652) states that foreign ideas, concepts, and technology will undoubtedly be imported in a foreign language, but such concepts must be transmitted to the masses in the language of their heart. Petersen (2014:57ff) reports that in West Africa one rural community learns painlessly through drama, rather than in translated foreign scripts that were created with a different culture in mind. The members create dramas that address local questions, world view, interests, and background knowledge. This is what has been the aim in this study through the analysis of linguistic components used in the Siswati language system where it was revealed, for example, that, unlike in the English language, Siswati employs more post-modifiers.

2. It is highly recommended that the Department of Education prioritizes practical basic mother tongue education for effective academic development of each learner. Much is embedded in mother tongue(s)/first language(s), for example, culture, social ethics involving speech acts, conversational implicature, indirectness, politeness, management of face, and construction of meaning, as discussed by Thomas (1995) on the development of pragmatics.
3. As English is a global lingua franca and a foreign language in most African countries, it would be more practical for it to be taught as a second (or additional) language in order to render equal opportunities to learners with high proficiency in their mother tongue and those who have mastered English.
4. It is recommended that the Department of Education identifies educational policies and practices that might hinder the process of social change since all learners have potential for future academic achievement.
5. Teachers need to be well informed about new teaching approaches so that they effectively implement them in their daily lesson delivery. Teachers also need support in the awareness of how language operates in their subject areas and departments of education should provide support in teaching aids. The bi-/multilingual pedagogy model would assist teachers to gain expertise in effective teaching in multicultural contexts.
6. There should be close and noteworthy collaboration between the Department of Education and universities, especially in the faculty of Arts to ensure that norms and standards for future

trained educators and the National Language Curriculum Statements for schools, and its interpretation and implementation are proper and relevant to the real classroom context

7. In terms of assessment, it is recommended that teachers consider that it is difficult for the African learners who grew up in the remote rural areas to have a good command in English and, hence, it is difficult for them to communicate and write effectively in English as a foreign language. Such learners should be rewarded for what they can do and not be penalized for not meeting the expectations measured in 'standard' English. This is more applicable in the case of content subjects where the teacher needs to prioritize content over grammar, though, it is necessary to continually improve learners competence.
8. It is recommended that the South African LiEP identify home language(s) that will be used simultaneously in each province and school and to minimize the number of learners in each classroom. It is overwhelming for a teacher to teach big numbers of learners in a classroom. Such an environment is not at all conducive for learning not unless the presence of teachers and learners is just a fulfilment of the law.
9. It is recommended that future language teaching research explores a strategy for the implementation of the South African policies as has been so that the language-in-education policy accommodates all levels of language competence in learners language(s).
10. Lastly, the government of South Africa has the obligation to implement effectively the use of all official languages in education, politics, media, and in economic-related spheres, following, Bamgbose's (2014) argument that 'language is the missing link', particularly among the insufficiently literate majority.

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