# An Analysis of Foundation Phase Materials
# for L1, L2, Life Skills & Numeracy

## On behalf of the Limpopo
## Department of Education

## Funded by Irish Aid

## Conducted by the Human Sciences Research Council

C.H. Prinsloo (HSRC)
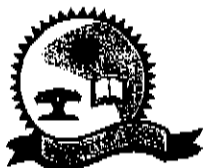## Carol Macdonald

## (University of the Witwatersrand)

## March 2008

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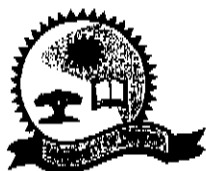## March 2008

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

HSRC
Human Sciences
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Irish Aid
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Rialtas na hÉireann

# Dedication

I should like to dedicate this report to Kathleen Heugh who opened up for me the chance of doing text linguistic work again.

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# CHAPTER 1: MODEL FOR TEXTUAL ANALYSIS

## 1.1 Introduction

The Human Sciences Research Council together with the University of Limpopo have undertaken research on the Foundation Phase literacy achievement in Limpopo Province schools. Irish Aid is funding this research. To this end, the first preparatory document as a model for textual analysis has been drawn up for the project. This chapter describes such a model.

In the Threshold Project (1990), one of the key activities was to analyse the difference between English as a subject and English as the medium of instruction. An analysis was done by Helma van Rooyen, who analysed two good Language schemes up to the end of Std 2 (Grade 4), and compared idealised achievement on these two schemes with the task demands of Std 3 (Grade 5) Science textbooks. This work was done in the then national state of Bophuthatswana. (The reason for choosing this location was for the team to avoid the widespread unrest at that time in the South African schools under the aegis of the Department of Education and Training, the department responsible for Black education outside of the "homeland/independent states".)

Translated into the vocabulary of the revised Curriculum, Van Rooyen analysed the idealised achievement of Grade 4 children doing English as a First Additional Language (FAL) and compared this with the English being used as the language of learning and teaching (LOLT) in General Science, Grade 5. The language policy at that stage was for the children to move from FAL in Grade 4 to English as LOLT in Grade 5. There was some variation in the independent homelands (e.g. Transkei), but in most schools this was the typical situation.[1]

This current document aims to do something similar for the Limpopo Education Department. However, the differences should be pointed out. Given that an open language policy now prevails, the team decided to work on the scenario where Second Language (L2) children change their medium of instruction to English from Grade 4 onwards. The situation for L2 has changed

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[1] The language of the revised Curriculum is introduced here, but the document proceeds with internationally accepted terminology.

slightly in that in the late 1980s English was only introduced in Grade 2, whereas the children now typically start learning English from Grade 1.

The model adapted from Van Rooyen (1990)[2] may be seen below. The necessary changes have been made for the scope of this model. The present document occupies the top box of the model, i.e. the components of an English model that may be used to analyse text. In fact it is the same as the model for Grade 4, except that the model will have to accommodate slightly more complex structures. Logically, the next step is to do an analysis of three (or perhaps four) Language schemes, to see how far they take the pupils in narrative English, but more importantly into expository (informational) text to provide children with a conceptual base for ideas that will be introduced later.



**MODELS FOR TEXTUAL ANALYSIS**

Descriptive and textual analysis

English
Three L1 Schemes
Three L2 Schemes
(Grades 1-3)

Life Skills
Numeracy
(Grades 1-3)

Results

Results

Summary —comparison— Summary
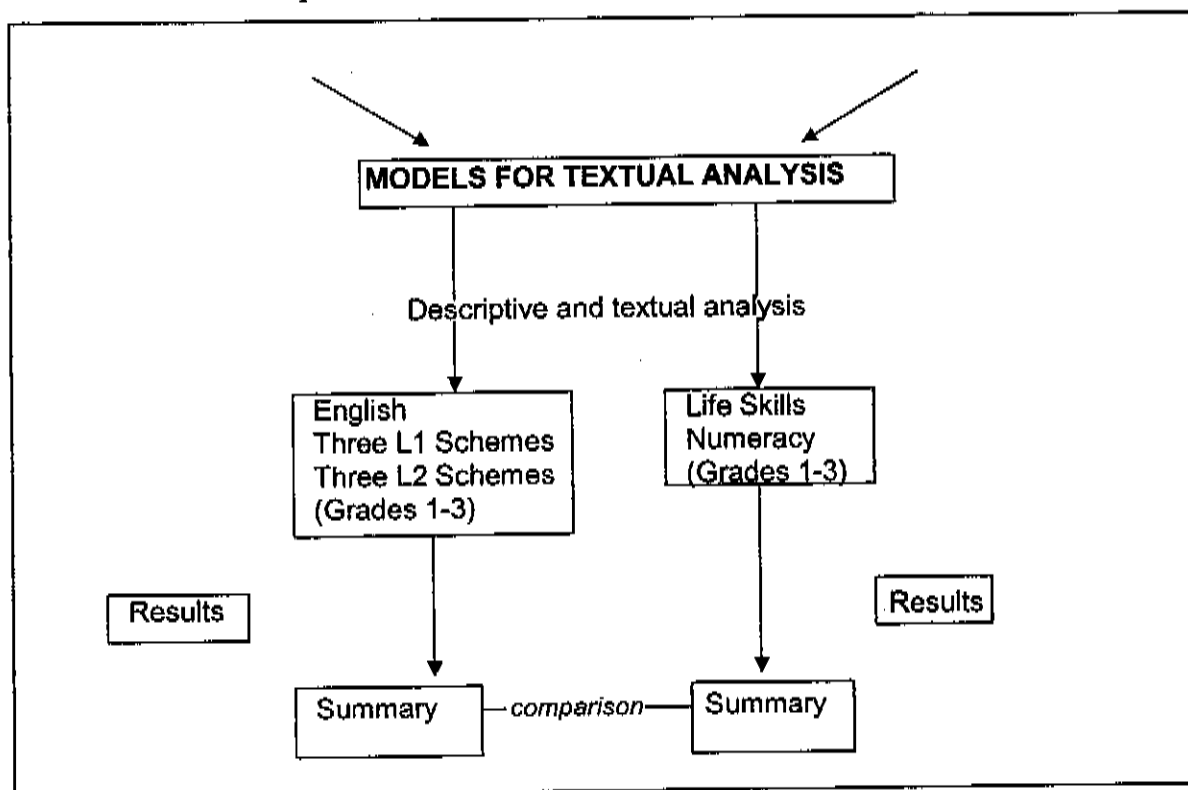
Figure 1: *Model for text analysis*

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[2] Van Rooyen, H, (1990) *The disparity between English as a subject and English as a medium for learning.* Pretoria: HSRC. Threshold Project Final Report.

The most powerful way of conducting textual analysis is to look at the text using a number of the levels of linguistic analysis. This can be done more or less theoretically.

Since this document is intended for a semi-technical audience, an effort is made to make at least most of it accessible for such an audience. The parts that may remain puzzling can be dealt with in capacity-building workshops. The present model applies to English and can probably be applied directly to Afrikaans; however, some parts would have to be adapted for analysing African languages, since they are not cognate with Germanic languages (in this case English and Afrikaans) and have unique word-building structures which characterise a completely different grammar. So there will be marked differences at the level of sentence analysis. Notwithstanding, below is a simple schema to show the levels in which English/Afrikaans may be described, and then used.
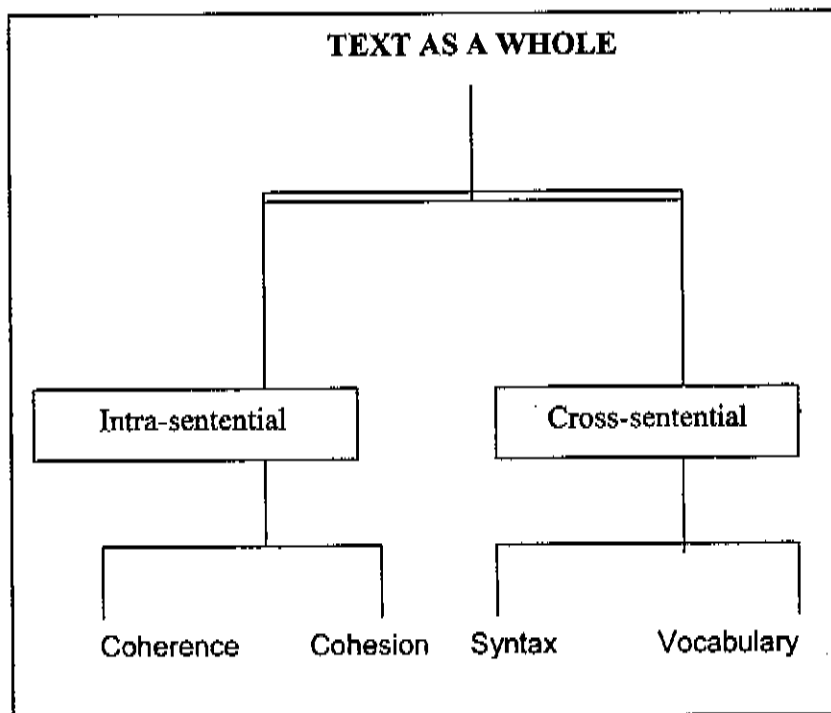


Figure 2: *Levels of textual analysis*

It must be pointed out that such an analysis omits a crucial aspect of the application of textual analysis in the *performance of language in the classroom*, which will be addressed in another phase of the present project.

In the description below, abstraction is avoided by the application of the descriptions to a unit of a Science textbook. This textbook has been chosen because it adheres to the recommendations of the Threshold Project, and therefore contains many elements helpful to L2 readers. Looking at this book, it is clearly for L2 learners and may therefore not likely to have been procured by teachers for largely First Language (L1) classes – but this information is not available. My position is that what is good for the goose is good for the gander, because there are many aspects of expository textbooks that will provide a challenge to young L1 readers[3] moving from Grades 3 to 4, which is typically when expository textbooks are introduced, and children are expected, by and large, to make sense of them after only being exposed to narrative.

## 1.2 Discourse and coherence

In this analysis, I prefer to use the concept of *discourse*, rather than coherence (a related linguistic term that is rather technical). Van Rooyen calls this section *coherence*, and I now give a brief summary of her description of what occurs under this term. I will follow this with a brief discourse analysis of the extract from the Science text.

Reading comprehension has been seen to relate to knowledge of discourse structures. "Text structure" refers to specific organisation and use of vocabulary, syntax, headings, overviews, etc., and these specifically allow us to characterise the difference between narrative and expository text, as well as to differentiate types of expository text or the structure of parts of them such as comparison/contrast, method/conclusion, and so on.

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[3] Cf. the work of Perera: Perera, K. (1981) Some language problems in school learning. In: Mercer, N. (ed) *Language in school and community.* London: Edward Arnold. Perera, K. (1986) Some linguistic difficulties in school textbooks. In: Gillham, B. (ed) *The language of school subjects.* London: Heinemann. Perera, K. (1984) *Children's writing and reading.* Oxford: Blackwells.

Knowledge of these structures facilitates comprehension, while an absence interferes with comprehension. To know a specific text structure is to have a textual schema for it, and to understand text well is to have a number of schemata. These schemata are activated when a reader approaches a text. She can refer to the information provided hierarchically, and make a coherent summary of the information. (This latter activity is extremely difficult for inexperienced readers.) Without knowledge of text structure, the reader may wade through a text, treating all information as equally important. This coping strategy can be seen to be absent even in L2 readers at university level (my own observation). One could safely assume then that such structures should be explicitly taught to children. By implication, we would expect textbooks to make judicious use of discourse structures, not overloading the young reader, indeed even making these structures more visible and accessible than typically expected.

Examples of signals in the text include predictive headings, subheadings, previews, overviews, summaries, the use of conjunctions and layout clues such as underlining, boldface and italics, and also the different sizes of headings of sections and subheadings, and the numbering of sections. Of the overviews, the Threshold Project felt that advanced organisers would be *un*helpful to L2 learners since they concentrate on the general abstract concepts that will be dealt with. These concepts are more densely introduced, and at a high level of abstraction that would seem to put a strain on poor vocabulary and concept skills.

Headings should be predictive, but readers can only make use of these if the information under them is properly organised. The question arises: should all the features be included if they provide a severe challenge for L2 readers? Indeed they should, because during the course of their schooling and perhaps tertiary education, they will continue to encounter them; furthermore these signals actually aid comprehension of difficult (a relative term here) text. Authors of textbooks should be informed of the importance of textual signals and write what is called "considerate text". Notwithstanding, some of the textbooks produced 20 years ago had very poorly constructed text, and Langhan (1993)[4] found that they even proved to be a source of difficulty for teachers.

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[4] Langhan, D. (1993) *The textbook as a source of difficulty in reading.* Pretoria: HSRC. Final Report of the Threshold Project 2.

One of the oldest strategies that teachers have used is to ask pupils to find the main idea in paragraphs or text. Readers may presume these sentences are the first in the paragraph but this is often not the case. The main idea may be made salient by the use of italics or boldface, or else when the teacher tells them which one to focus on. Finding the main idea can help the reader to keep the gist of the argument in her head, while the peripheral information drops away. The latter can be retrieved on later re-reading the text. Teachers virtually never read the text with pupils more than once, so maximal impact is made if the discourse is optimally organised: minimal impact is made if the text is poorly organised.

An important part of the text for a young reader is the use of visual materials and how they are integrated, or not, with the text. Instinct tells us that these should be as close as possible to their mention in the text. (In a starting text the Threshold Project looked at, one illustration was 30 pages away from the reference to it.) Children are used to pictures in narrative text, and recent picture books have provided more information (amusing or contrary) than appears in the text. Unfortunately, textbooks are not so much fun, and here the visuals are most important in illustrating text that readers find abstract.

We may say then that if the readers are cued to look at the pictures, if the central ideas are signalled explicitly and if the reader is interested, then readability should improve. In the Threshold Project we found that children did not pay any attention to the pictures, and they did not know what "Figure" referred to. They would read straight through a sentence that included, for example, "… see Figure 4 …" and not look for Figure 4 at all. They also read straight through synonyms placed in brackets in the text, without realising their function.

Van Rooyen asked the following questions in her analysis:

a. Do headings predict the following content?

b. Is the content of the heading reinforced in the text immediately following?

c. Is the content of a section organised in such a way that propositions follow from previous ones?

d. Is an overview of the chapter or section of it provided in comprehensible language?

e. Do paragraphs have formulations that explicitly state the salient/mains idea?

f. Are readers reminded to use visual material to comprehend the text better?

In the Threshold Project there were two approaches to discourse structure. The first was to give children texts and watch them closely and ask questions related to the text. The second was to do a disparity analysis between the schemes and the two textbooks. The latter is very telling (Van Rooyen 1990:91).

| SCHEME 1 | SCHEME 2 | SCIENCE TEXTBOOKS |
|---|---|---|
| — | picture labels | picture labels |
| repetitive patterns | repetitive patterns | repetitive patterns |
| predictive titles | predictive titles | predictive titles |
| — | — | one main idea per paragraph |
| — | — | headings reinforced |
| — | — | progressive structure |
| — | — | overviews |
| — | — | explicit reference to pictures |

Figure 3: *Discourse Structure across types of texts*

The research with a page from a textbook, and a revised page with the same content but with good discourse structure, were used with two groups of different children.

Most Grade 5 children did not pay attention to or even read headings, labels or captions. They did not understand references to pictures such as "See Fig.7.2.19" and just read through the numbers as numbers (and probably wondering what the fruit, figs, were doing in the text). Often children chose the right picture for the wrong reason, for example, if the first picture was under the paragraph to which it was related, then all the other pictures would be too. When asked to think about why pictures are important there was an array of quaint answers, the following being the most poignant: "If we look at the pictures we can see what the sparrow looks like and what colour it is" (the pictures were black and white drawings).

Nevertheless, children do comprehend text if they are taught the discourse indicators, and with a minimum of research we could work out when exactly (at Grade 2) we can start to do this.

It is now appropriate to have a look at a unit from a Grade 4 Science text and briefly analyse its use of discourse structure. It has to be said up front that this series was written taking the recommendations made by the Threshold Project very seriously. The following four pages have been scanned in, and the commentary follows. It is worthwhile to bear Van Rooyen's questions in mind when we have a look at the unit.

## Module 1 People, plants and animals need each other

In this module you learn how people depend* on animals and plants, and how animals depend on plants. You learn how each animal and plant needs a place to grow and make more young animals and plants.

Core concepts are Habitat, Reproduction, Biodiversity.

You will investigate a small animal and the way it lives (Learning Outcome 1).

You will show that you understand pictures and other information about animals and plants (Learning Outcome 2).

You will discuss reasons why we need to respect the places where plants and animals live (Learning Outcome 3).

> **Assessment**
>
> In every Activity and every question you can show what you are able to do. Each activity and question is for assessment.
>
> Your teacher will assess you frequently to help you learn better and do more.

### Living things around us
NB See Teacher's Book

Find the big picture of Linda's farm on pages 6 and 7. Then follow this story or read it for yourself.

**Figure 1** *Linda and her family*



Linda lives on a small farm, with her mother and father and brothers. Linda's mother has a garden and keeps chickens. The chickens like to eat mealies and Linda feeds the chickens with mealies. The chickens lay eggs and Linda's family eats the eggs.

Sometimes a hen sits on the eggs and they hatch and baby chickens come out.

Sometimes the family eats one of the grown-up chickens. Dogs and jackals like to eat the chickens too, but Linda puts the chickens in a wire cage at night. Then the dogs and jackals cannot eat the chickens.

Figure 2 *The wire cage is a safe place for the chickens to live*



NS2-INTPT
1   Find these things in the picture on pages 6 and 7: Linda's house, the chickens, the garden, the mealie plants, the jackal, a dog and the wire cage.
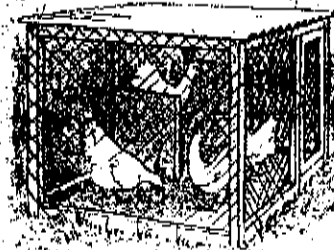
There is veld near to Linda's farm, and Linda likes to walk in the veld and see the trees and small animals.

NS2-INTPT
2   Find Linda in the picture. Does Linda look near or far away? Linda is near to you in the picture.

NS2-INTPT
3   Why does Linda look bigger than the cow? Linda is near to you but the cow is far away.
Skill: Interpreting pictures

2   Module 1 People, plants and animals

---

**Lesson focus:** Make learners feel confident that they know something and can speak and contribute ideas to the lessons.

Outcomes focus NS2-INFO (Grade Levels 4-6) and NS2-CATEG (Grade Level 4-5)

Concept focus: LIVING, DEPENDENCE, BIODIVERSITY.

Process skills: Interpreting a picture

Your learners must have the confidence to speak and to do, for you to assess their progress in Science and Technology outcomes.

We strongly suggest that you let them speak in their most fluent language (their MFL). When they are using their MFL, they can surprise us with the quality of their thinking. If they need to learn new English words, teach them in the next lesson. In this book, MFL → Eng means "MFL first, English later". See page T36 for notes on using the story with learners who cannot read yet.

Q5: This question allows the learners to say what they think, which builds their confidence. Their answers may tell you how much they already know, or which learners you can call on to discuss new ideas.

Figure 7 Figure 8 Figure 9 Figure 10

Figure 11 Figure 12 Figure 13 Figure 14

**Word-box:**

| millipede | spider | termites | mosquito | frog | weaver-bird |
| bus | grass | nest | windmill | mealies | cloud |

NS2-INTPT
**11** Look at Figures 7, 8 and 9. Which is the smallest and which is the biggest: the frog, the cloud or the bus? Learners interpret drawings which are drawn to different scales. The drawing of the frog is the biggest, but a real frog is the smallest.

NS2-APPLY
**12** Which of the things in **Figure 3 to Figure 14** are living? See footnote Q12.

NS2-APPLY
Lang 5
**13** Give reasons why you say these things are living. See footnote Q13.

4  Module 1 People, plants and animals

Q12. All the things in the pictures except for the bus, the cloud, the windmill, the firewood and the nest are living. In this question, the learners clarify their concept of living. It needs plenty of group discussion; the question is simple.
Q13. Some learners might say that the river and the bus are living because they can move.

What is the concept of LIVING? Living things can move themselves, but they can also grow, they use food, and they make more things like themselves (they reproduce, or "have babies"). So the nest was made from living grass, but it is not living any more.

## 1.3 Discourse analysis

**Unit 2 Grade 4 Science**
(Please refer to the previous four pages.)

The headings are predictive:
e.g. Module 1 People, plants and animals need each other
There is an Assessment Box with important words bolded.

The Unit Number is on a bar.

Heading of this particular unit: Living things around us.

The headings are predictive of the text that follows, and the content of each paragraph is organized in such a way that propositions follow from previous ones (this will be further seen in the section below on cohesion.)

There is an overview of what the section is going to be about; it is written in relatively complex language, but the author points out that this section on Learning Outcomes is specifically aimed at the selection process and for the *teachers* rather than the *children*.

The paragraphs (here only instantiated by the story) have the main ideas clearly stated: it moves from a farm to chickens to eggs.

There are different fonts for different functions. The first instruction is the basic font, which is Helvetica 12/14pt. The second font, for stories, is Times New Roman 13/15pt. This is a big enough font for young readers.

Important words are in **bold** but this is not over-used, so any instance of use is taken seriously. The headings are in **bold** (cf. the names of the animals the children see in the picture). The children will have to learn the convention that dots mean that you have to fill in something. This is in the grey box with English and African animal names.

Question 10 also refers to pictures over the page, but since they are all numbered, this shouldn't be a problem. However, it is always best to have the Figures next to the text. If they aren't, then

there is 100% chance that learners will not look at them. In later models of this course (Grade 5 and above) the Units are laid out in a double spread, which is a more felicitous design for young readers.

The figures are labeled above the picture, and the information is written in italics. This means that readers get used to paying attention to the label and hopefully make sense of it in relation to the text itself. The children are referred to a complex double spread page (in colour), which is used to illustrate a number of things in the text.

Sometimes pictures have a box around them, and sometimes they don't. It depends on the information required. (Pictures tend not to have a box.) Figures 3 to 14 alternate frame with no frame – this seems to be a stylistic device. However the learners have a task that is laid out above. "Choose names from the word box underneath the pictures". The word box is in a gray box with a border.

Questions are numbered and indented to show they are not part of the general text. There is extra space between the questions. It is likely that the teacher will read through the questions before the children attempt the answers; but if the children's English is good enough, they could do this for themselves.

The author has a secondary focus in this unit; in addition to children having to look at a specific picture, questions are asked about perspective in the picture – this is in Questions 2, 3 and 4. These questions are added because we know that children at this stage cannot necessarily interpret (complex) perspective in pictures.

It can therefore be concluded that this part of the unit has quite good discourse structure.

## · 1.4 Cohesion

### 1.4.1 Introduction

*Cohesion* is an aspect of language analysis which is not readily accessible to the layperson, at least partly because it is not taught as part of grammar at school, nor in courses dealing with English Literature, but only, it seems, in courses on Linguistics. This description of how it works is meant to be a semi-technical description. People working on text can analyse text to see that it is maximally cohesive for young readers, and be able to generate text that is helpful for first language (FL) and additional language (AL) readers. The standard textbook is this area is Halliday and Hasan (1976)[5]. This should immediately alert the reader that cohesion in other languages may be different, and certainly we would expect that non-cognate languages (such as English and Afrikaans on the one hand and African languages on the other) might make use of different devices. Cohesion is fundamentally a semantic (meaning) relationship, but it does rely on sentence structure (grammar) for a good deal of its working out.

### 1.4.2 Moving in

As has been indicated above, the concept of cohesion is a semantic one. It typically goes across clauses and sentences, although it can be dealt with within sentences as well. Cohesion is expressed partly through the grammar and partly through the vocabulary. Consider the following sentences:

[1] Wash and core six cooking apples. Put them into a fireproof dish.

It is clear that the word *them* refers back to the *six cooking apples*. We say this is an **anaphoric** relation, because the word *them* refers to something that occurs previously in the text. The anaphoric relationship gives cohesion to the two sentences. These two sentences form part of the text, although there may be more to follow. We are talking about *resolving* the anaphor. The

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[5] Halliday, M.A.K. and Hasan, R. (1976) *Cohesion in English.* London: Longman.

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word *them* presupposes that there is something in the preceding text that satisfies the presupposition.

We can modify these two sentences at [2] to show another cohesive tie:

[2] Wash and core six cooking apples. Put the apples into a fireproof dish.

What is the item functioning cohesively here? It is *the apples*. The word *apples* functions as repetition; the word *the* works as an anaphoric signal. (It is "these apples" and not "another set of apples".)

This might seem abstract so far, but in fact you have already learned about three different kinds of cohesive ties: pronouns which refer backwards *(REFERENCE)*; the repetition of words *(REPETITION)* and the use of the definite article *the* as an anaphoric element. You could apply these skills immediately to a piece of text (written for young learners). As you might expect, there are some cohesive ties which are more difficult than others for young readers to resolve, and also, equally important, certain cohesive ties do not exist in the L2 mother-tongue speakers of an African language. Such cohesive ties should be used sparingly, and only introduced very cautiously and thoughtfully. So, there is every reason that writers of textbook schemes be conversant with cohesive ties and issues concerning them.[6]

In the two examples given above, we have identified both *GRAMMATICAL COHESION* and *LEXICAL (word meaning) COHESION*. The word *the* is a grammatical tie (it belongs to a small and closed number of grammatical words, for example, *these, those, yours*, etc. The word *apple* is a lexical tie. We have already said that some forms of cohesion are realized through the grammar, and others through the vocabulary – but it is a semantic function.

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[6] As with all the functions of language, cohesion is essentially below the level of awareness for both L1 and L2 readers. I have taught L2 Honours students to look for these ties systematically, as this creates more structure in the text, making it easier to understand. Students also become more active readers in the process. It is not being suggested here that young learners learn explicitly about cohesion. This is beyond their competence at this stage. This kind of knowledge is needed by writers and reviewers of learning support materials.

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The grammatical types of cohesion are *REFERENCE, SUBSTITUTION and ELLIPSIS.* The *LEXICAL* form of cohesion has to do with word meaning. Then there are *conjunctions/ connectives* (of which English has many)[7] that fall between the grammatical and the semantic. But since cohesion is a semantic function, we need to stress that it is the semantic resource for linking a *SENTENCE* with what has gone before. Such linkages might be in two sentences that follow each other, but in fact the relationship can occur across a number of sentences.

[3] John woke up. He climbed out of bed.

The reader might be feeling a little overawed at this point at having to deal with an area of linguistic analysis that seems entirely novel. But all speakers have a sense of these phenomena. Let us look for a moment at what happens when we don't use pronouns (pronominalisation).

[3a] John woke up in John's bed and climbed out of John's bed. John looked out of the window for John to see the weather. John had a shower and put on John's clothes. John had to eat John's breakfast fast because John was late. John grabbed John's briefcase and John slammed John's door and John ran down the path to be in time to catch John's bus.

The word *John('s)* appears 16 times in this paragraph and makes it read very strangely indeed. The instinct to insert *he* and *his* is nearly overwhelming. Get it? Of course.

Let us then move onto a brief description of the types of ties.

## 1.4.3 Reference

There is a small set of different kinds of *reference.* See the diagram on the following page.

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[7] The relatively large number of conjunctions in English stands in contrast with a rather small set in African languages. Therefore, once again, when writing for L2 readers you should use these, but sparingly, and introduce new ones thoughtfully.

```
┌─────────────────────────────────────────────────────────────┐
│                                                               │
│                        Reference                              │
│                           │                                   │
│            ┌──────────────┴──────────────┐                    │
│            │                             │                    │
│     [situational]                    [textual]                │
│       exophora                       endophora                │
│                                         │                     │
│                              ┌──────────┴──────────┐          │
│                     [for preceding text]   [for following text]│
│                           anaphora              cataphora     │
│                                                               │
└─────────────────────────────────────────────────────────────┘
```
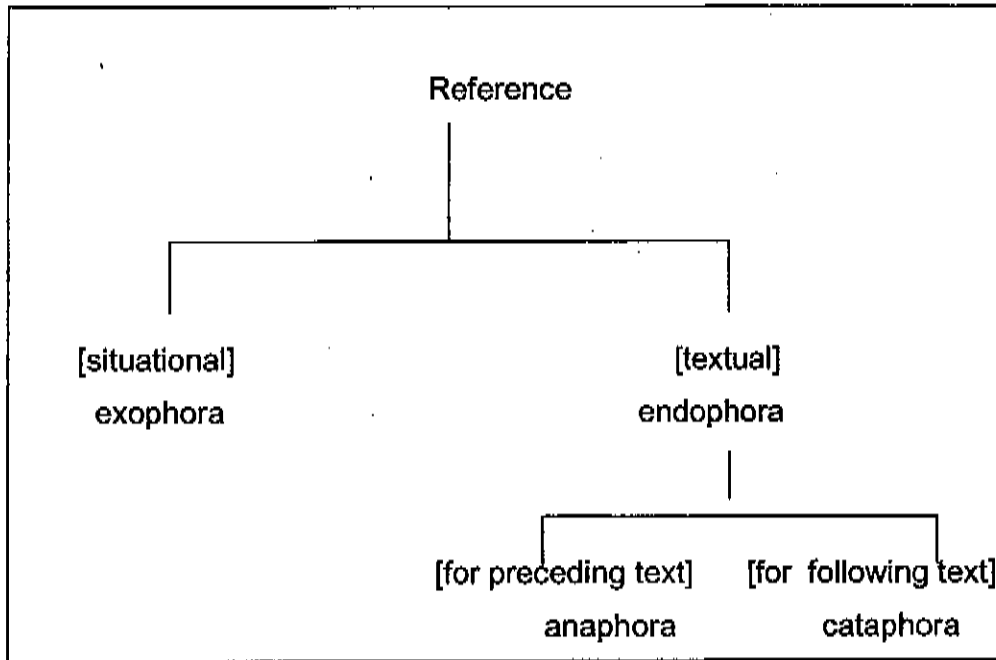
Figure 4: *Types of textual reference*

Exophoric reference refers to something outside of the text, to something in the situation. The language of children contains lots of exophoric reference, because they don't see the need to be specific for the hearer. In the interchange below, the child is forced to be specific about what he has just been referring to in the context or situation.

[4] Child:      Why does THAT one come out?

Parent:      That what?

Child:       THAT one.

Parent:      That what?

Child:       The ONE!

Parent:      That one what?

Child:       That lever there that you push to let the water out.

Exophoric reference is fairly rare; it links the language with the context of the situation. However, it doesn't contribute to the *integration* of one passage with another, and therefore it is not truly cohesion as defined by Halliday and Hasan.

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### 1.4.3.1 Types of reference

There are three types of *reference*: personal, demonstrative and comparative.

*PERSONAL REFERENCE* refers through the category of *PERSON*: examples include, *I, me you, we, us, he, him, she, her, they, them, it, one*. These refer to persons or things that exist. The "John" passage above at [3] needed the use of *he*, and the demonstrative *him*. Possessive pronouns are modifiers of a noun, e.g. *your window, our family, their house*.

*DEMONSTRATIVE REFERENCE* includes the determiners *the, this, those, there, then*. An example would be:

[5] He looked at those cattle over there.

*COMPARATIVE REFERENCE* includes adjectives and adverbs such as *identical, identically, different, differently, equal, equally*. An example would be:

[6] Although I thought that these two pictures were identical, Jane said that <u>they</u> had been painted <u>differently</u>, with <u>different</u> types of pastels.

Another example would be:

[7] My husband and I are leaving. <u>We</u> have seen quite enough of this unpleasantness.

This an anaphoric reference, where the speaker is referring to herself, so it is endophoric.

What has been said about personal pronouns also applies to *possessive determiners* and *possessive pronouns*. These are illustrated in the following pairs of sentences.

[8] John's house is beautiful. His wife must be delighted with <u>it</u>.

[9] That new house is John's — I didn't know that it was <u>his</u>.

Notice that in [9], the single word *his* is actually part of a phrase *his house*, but *house* has been elided.

Demonstrative reference is like a form of verbal pointing.[8]

| near: | far: |
| --- | --- |
| *this* | *that* |
| *these* | *those* |
| *here* | *there* |
| *now* | *then* |

Look at this set of sentences:

[10] I like the lions and I like the polar bears. <u>These</u> are my favourites.

— <u>Those</u> are my favourites too.

The definite article *the* requires a quick comment. Look at this pair of sentences:

[11] The South African party climbed Mount Everest. <u>The</u> ascent of Mount Everest was a great triumph for our country.

*The* has quite a complex usage, but what we need to know for now is this: it has no meaning of its own. What it does is to indicate that the item to which it refers is specific and identifiable. Somewhere the information for identifying it is recoverable. We usually use *the* on the second mention of an object or event. However, the second mention may not be in the next sentence — there may be several sentences between the first and second mention.

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[8] SeTswana has a more complex system that has died out in English, namely h*ere, there,* and *yonder.*

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This concludes the brief overview of references. You will find them quite easily in cohesive text, and naturally the recognition will become more swift with practice.

## 1.4.4 Substitution

*Substitution* and ellipsis can be regarded as very similar. Ellipsis can be regarded as substituting a phrase or clause with nothing. But it is easier to deal with them separately.

### 1.4.4.1 Substitution and reference

Substitution works at the grammatical level, while, as we have seen, reference works at the semantic (meaning) level. Remember, we also pointed out that cohesion works at these two levels.

Have a look at these two pairs of sentences:

[12] My axe is too blunt. I must get a sharper <u>one</u>.
[13] You think Joan already knows? – I think everybody <u>does</u>.

*One* substitutes for *axe*. *Does* substitutes for *knows*.

Possibly the most important thing to know here is that the substitute item has the same structural function as that for which it substitutes. So there are three types of substitution – it may function as a noun, a verb or as a clause/sentence. There is a very short list of items that function as substitutes:

| | |
|---|---|
| Nominal (noun): | *one, ones, same* |
| Verbal: | *do* |
| Clausal: | *so, not* |

Let us flesh these out with three sets of concrete examples.

**Nominal:** .

[14] These biscuits are stale. — Get some new <u>ones</u>.

[15] I'll have two fried eggs and bacon. — I'll have the <u>same</u>.

**Verbal:** ·

[16] "I don't know the meaning of half these strange concepts, and, what's more, I don't believe you <u>do</u> either!"

[17] She never really succeeded at her studies. She might have <u>done</u>, had it not been for her spending lots of time with her partner.

### 1.4.4.2 Verbal substitution

Substitution is more common in spoken language than in written language. Before passing on, we must make an important point about the use of *do* in English.

*Do* may act as a main verb.

[18] I <u>was doing</u> my homework when my cousins arrived.

[19] I <u>am doing</u> a Master's degree in Psychology.

But sometimes English uses what we call a "dummy-*do*" when we don't have an auxiliary (helping) verb in a sentence. It doesn't have any meaning. When the sentence is negated, interrogative as in a question, contrasted or emphasized, we may need to use dummy do.

[20] Can you swim? — Yes, I can.

(Here we have the modal auxiliary *can* so we don't need *do*.)

[21] Do you swim? —.Yes, I do.

(There is no auxiliary in *you swim*, so we need to bring in the dummy do in the question form.)

[22] You hate yoga. — No, I don't.

(As in [20], there is no auxiliary in the first sentence; so "dummy *do*" is brought in when emphasis is required.)

You probably don't have to remember the two different meanings of *do*, because the use of either at the end of a sentence will signal substitution. We also find the forms:

*do so, do (make, take, etc.), do happen.* '

### 1.4.4.3 Clausal substitution

[23] The children work very hard in the garden. – They must <u>do</u>.

[24] Is there going to be a hail storm? – It says <u>so</u>.

[25] Everyone seems to think that Shaik is not guilty. –.<u>If so</u>, he should be released.

The third pair of sentences contains a conditional, and so we include the conjunction *if* in the substitution.

It is quite possible to use the expression *did so* in Tswana, for example by saying: *He did so. O direle jaana*, but it is not clear how often this construction is used, and there are authors such as Lanham (1986)[9] who believe there is no such construction, and that children will be challenged by *did*, or *do so* in English texts.

### 1.4.5 Ellipsis

As was explained earlier, substitution and ellipsis are closely related, because ellipsis is merely "substitution by zero".

The main meaning of ellipsis is that there is 'something left unsaid'. But it doesn't mean that it is not **understood**. The special meaning of understood here is that 'it goes without saying'.

Let's look at the following example:

[26] Joan bought some dessert and Joan (Ø) some cream.

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[9] Lanham, L. W. (1986) Another Dimension of Readiness to learn in the Second Language. In: *The Role of Language in Black Education.* HSRC Research Programme No. 6. Pretoria: HSRC.

As with substitution, there is *NOMINAL* (noun) ELLIPSIS, VERBAL ELLIPSIS, and CLAUSAL ELLIPSIS. I have put in the ellipsis sign, so that we don't have to discuss each example.

### 1.4.5.1 Nominal ellipsis

[27] The men got back at midnight. Both (Ø) were tired out.

[28] Take these pills three times daily. And you'd better have some more of those (Ø) too.

[29] I've used up these three yellow folders you gave me. Can I use the other (Ø) ?

[30] Have another chocolate. – No thanks; that was my third (Ø).

### 1.4.5.2 Verbal ellipsis

[31] Have you been swimming? – Yes, I have (Ø).

[32] Is he complaining? – He may be (Ø), I don't know.

[33] Did Jane know? – Yes, she did (Ø).

[34] My house is so hot that my cats are completely flaked out. – I am a bit (Ø) too.

[35] I could help them. – Why don't you (Ø)?

### 1.4.5.3 Clausal ellipsis

[36] What was the Duke going to do? – (Ø) Plant a row of poplars in the avenue.

[37] What were they doing? – (Ø) Holding hands.

[38] The plane has landed. – Has it (Ø)?

[39] I thought Mpho was leaving today. – She hasn't said so (Ø).

[40] I left my books here and somebody came in and either borrowed them or put them back on the shelf but didn't say a word to me. I wish I could find out who (Ø).

## 1.4.6 Conjunctions and cohesion

The fourth and final type of cohesive device that we find in grammar is that of *conjunction*. Here were are focusing on one particular aspect, namely the function they have of relating, to each other, linguistic elements that occur in succession but are not related by other, structural means.

There is the relation of sequence in time, the relationship of adversity and so on. English is particularly rich in conjunctions. Let us have a look at a few:

Adverbs: *but, so, then, next, subsequently, actually, therefore, furthermore, nevertheless, anyway, instead, besides.*

Prepositional phrases: *on the contrary, as a result, in addition, instead of that, in spite of that, because of that.*

Some of the most common conjunctive elements include: *and, but, yet, so, then.*

One can use a scheme of just four categories of conjunctions: additive, adversative, causal and temporal. The following example shows all of these in turn.

[41] For the whole day he climbed up the steep mountainside, almost without stopping.

[a] Additive: <u>And</u> in all this time he met no one.

[b] Adversative: <u>Yet</u> he was hardly aware of being tired.

[c] Causal: <u>So</u> by night-time the valley was far below him.

[d] Temporal: <u>Then</u>, as dusk fell, he sat down to rest.

Halliday and Hasan list 118 conjunctive expressions in English, which is vastly more, than for instance, in the African languages. This may be because of the historical development of English to develop philosophical and scientific arguments over the course of centuries.

Cole (1955/1975)[10], in his very thorough description of SeTswana, shows us the range of conjunctions in SeTswana. The important thing to notice here is that some of the conjunctions have more than one meaning, and so the precise meaning must be derived from the context. Here are some of them:

*Itse.* – after all don't forget, of course

*Antsaana* – after all, actually, so

*Boo* – as if ...!, considering ... that ... not

*ekete* – apparently, as if, it seems as if

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[10] Cole, D. T. (1955/1975) *An Introduction to Tswana.* Longman: Cape Town.

*eseng.* – not

*fela* – however, nevertheless

*gape* – furthermore, moreover, again

*jaanong* – now

*jalo* – so, thus, therefore, in that way

*kakgonne, kagore, kagobo, gonne, gobo, kagobane* – because, for, since, as

*kana* – after all, don't forget, of course, by the way

*legale* – also, furthermore, moreover

*motlhamongwe* – perhaps, maybe, possibly

*ntekane* – whereas, after all, but actually.


It is highly unlikely that young African language speakers would come to school with the range of conjunctives expressed thus. It is probably the case that the conjunctions would be *but* and *and,* and perhaps *also.* Even these have multiple forms.[11]


but – *jaana, fela, le gale, mme* (amongst others)

and – *mme*

also – *e bile, gape.*


A complete list of English conjunctions may be found in Appendix II.


## 1.4.7 Lexical cohesion

Lexical cohesion, as we pointed out earlier, achieves its effect, not through grammatical structures, but by the selection of *vocabulary.*


The first category identified by Halliday and Hasan (1976: Chapter.6) is **general nouns.** These are nouns that are not as particular in meaning as the noun that preceded it. A few examples will help here:

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[11] Snyman, J.W., Shole, J.S. and Le Roux, J.C. *Dikisinare ya Setswana, English, Afrikaans.* Via Afrika: Pretoria

[42] Didn't everyone make it clear that they expected the <u>minister</u> to resign? — They did. But it seems to have made no impression on the <u>man.</u>

[43] What shall I do with all this <u>crockery</u>? — Leave the <u>stuff</u> there; someone will come and put it away.

[44] We all <u>kept quiet</u>. It seemed to be the best <u>move</u>.

[45] Can you tell me where to stay in <u>Geneva</u>? I've never been to the <u>place</u>.

[46] Henry seems <u>convinced</u> there's money in dairy farming. I don't know what gave him that <u>idea.</u>

General nouns work as cohesive elements insofar as they are referential – the original word and then the general word have the same referent. It is not clear to what extent this phenomenon works in African languages.

## 1.4.8 Reiteration

Reiteration occurs when exactly the same word is used, and once again there is a common referent.

Between general nouns and reiteration there is a sliding scale of other types of related words: the use of a synonym, a near-synonym, or a superordinate. In most cases of this reiteration, there is the use of a reference item, most likely to be *the*.

Let us look at an example with this sliding scale of words:

[47] I turned to the ascent of the peak.

[a] Repetition: The ascent is perfectly easy.

[b] Synonym: The climb is perfectly easy.

[c] Superordinate: The task is perfectly easy.

[d] A general noun: The thing is perfectly easy.

[e] A personal reference item: It is perfectly easy.

## 1.4.9 Lexical relations as cohesive patterns

Unlike the examples above, it is not necessary for two lexical occurrences to have the same referent in order for them to be cohesive. The second occurrence could be (a) *identical*, (b) *inclusive*, (c) *exclusive* or (d) *simply unrelated*. Let us look at an example of such over the page.

[48] There's a boy climbing that tree.

[a] The boy's going to fall if he doesn't take care.

[b] Those boys are always getting into mischief.

[c] And there's another boy standing underneath.

[d] Most boys love climbing trees.

## 1.4.10 Collocation

Here we have cohesion being achieved through the association of lexical items that regularly co-occur. Here are examples of opposites of various kinds:

*boy ... girl*

*stand up ... sit down*

*like ... hate*

*wet ... dry*

*crowded ... deserted*

*order ... obey.*

Also:

Part-whole relations such as: *car ... brake, box ... lid*

Part to part: *mouth ... chin, verse ... chorus*

Both members of a more general class: *chair ... table, walk ... drive.*

Having tried to systemize this, we have to admit that all the semantic relations of collocation cannot be approached this way. Have a look at the following pairs, and see that they have a semantic relation, even if we can't exactly say in which way:

*Laugh ... joke, blade ... sharp, garden ... dig, ill ... doctor, try ... succeed, bee ... honey, door ... window, king ... crown, boat ... row, sunshine ... cloud.*

These pairs get their cohesive tendency because they share the same *lexical environment*.

The effect doesn't just hold over two items; it is common for long cohesive chains to be built up, with words patterns such as:

*Candle ... flame ... flicker, hair ... comb ... curl ... wave; sky ... sunshine ... cloud ... rain.*

These patterns occur both within the same sentence and across sentence boundaries.

If these types of pairs of words occur quite close in the text, their strength of collocation is stronger than if they occur quite far apart.

Halliday and Hasan (1976) reassure us by saying that the most important thing here is to use our common sense, combined with our knowledge that we have as speakers of the language. We have a clear idea of the relative frequency of words in our own language, and a ready insight into what constitutes a significant pattern and what does not.

So, in order to do this fully, we probably have to be competent, mature speakers of our own language; I do not think this would necessarily exclude competent second-language speakers, in this case, of English. What we need to remember is that children are not aware of lexical cohesion, but if text is well written, they should start to build up semantic relations of collocations for instance. However, we need to point out that stylistically, English prefers to use reiteration (with its four levels) and this makes it more difficult for young learners to resolve the referent. For example if we make a lexical chain *John ... man ... idiot ... victim* the young learner may not realize that these all refer to John, and furthermore, we put a strain on their vocabulary development. So, good text for L2 learners should be judicious in using this English stylistic device.

If this is the first time readers have had to try to digest the notion of cohesion in text, they might well be feeling daunted at the prospect of putting all this information to productive use. What I have done, in order to show that it is not necessarily difficult, is to now do a cohesive analysis of

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the Science text that we are using as an example. This text, for Grade 4, pays very careful attention to making the text cohesive, but in a simple way, for this is the learners' first exposure to expository or informational text.

## 1.4.11 Cohesion in a Science text

The following analysis is based on the Science text on page 9 of the Science text. It has been retyped here to help the reader to identify the types of cohesion. The analysis follows the text.

*Module 1(1) People, plants and animals need each other*
*TEXT*
In this[1a] module[1b] you[2] learn[3] how people **depend**[4] on animals[5] and plants and animals[5a] depend[4a] on plants. You[2a] learn[3a] how each animal[5b] and plant needs a place to grow[6] and make more young animals[5c] and plants.

You[2a] will investigate a small animal[5c and 7] and the way it[7a] lives[6a][Learning Outcome 3]

## Unit 1.1 Living things around us

Linda[8] lives on a small farm[9], with her mother and father and brothers. Linda's mother[8a] has a garden[9a] and keeps chickens[7a, 9b and 10]. The chickens[10a] like to eat mealies and Linda feeds[11] the chickens[9c].The chickens[10b] lay eggs[11a] and Linda's family[8c] eats the eggs[11b].

Sometimes[12] a hen[10c] sits on the eggs[11c] and they[11d] hatch[13] and baby chickens[11e] come out[13a].

Sometimes[12a] the family[8d] eats[14] one of the grown-up chickens[10d][9d]. Dogs and jackals[15] like to eat[14a] the chickens[10e] too[16], but[17] Linda puts the chickens in a wire cage at night. Then[18] the dogs and jackals[15a] cannot eat[14b] the chickens[10d].

*ANALYSIS*

1 and 1[a] backwards reference [anaphora] "module" "this"
1 and [1b] word repetition [lexical repetition] "module"
2 and 2[a] lexical repetition and exophoric [outwards] reference "you"
3 and 3[a] lexical repetition "learn"
4 and 4[a] lexical repetition "depend"
5 and 5 [a][b][c] lexical repetition [singular and plural] "animal/s"
6 and 6[a] lexical chaining "grow" "lives"
7 and 7[a] backward reference [anaphora] "animal" "it"
8 and 8[a] lexical chaining and partial repetition "Linda" "Linda's mother"
8 and 8 [b] lexical chaining and partial repetition "Linda" "Linda's family"
9 and 9[a][b] lexical cohesion – context "farm" "garden" "chicken"
9[b] and 10[a] lexical repetition – identity "chickens"
10[a] and 9[c] anaphora and definite reference "chickens"
10 and 10[a] anaphora and definite reference "chickens" "the chickens"
10[a] and 10[b] lexical repetition "chickens"
10[b] and 10[c] lexical cohesion – similarity "chickens" "grown-up chickens"
10[c] and 10[d] anaphoric reference "chickens"
10[a][b][c][d] some form of identity [chickens and hen]
11 and 11[a] lexical chaining "feeds" "lays eggs"
11[a] and 11[b] lexical repetition "eggs"
11[b] and 11[c] anaphora and definite reference "eggs" "the eggs"
11[c] and 11[d] anaphoric reference "eggs" "they"
11[a][b][c][d] some form of reference to "eggs"
11[b] and 11[e] lexical cohesion – context "eggs" "hatch"
12 and 12[a] lexical parallelism "sometimes"
13 and [13a] lexical repetition/similar word "hatch" "come out"
14 and 14[a] repetition with different structure "eats" "to eat"
15 conjunction "too"
16 conjunction "but"
17 conjunction "then".

## 1.5 Syntax and morphology

### 1.5.1 Introduction: some contrastive analysis

First I will give some basic rules of grammar, looking at English and SeTswana, and making some comments about young readers. Next I will show some more detailed aspects of English sentence structure.

The notion of syntax is the rules of grammar for forming sentences (unlike cohesion and discourse). Morphology is the construction of "words" and it is included here because if its characterization in African languages.

Most of the languages in the world have the simple structure: Subject – Verb – (Object), although not necessarily in that order. The basic structure in grammar can be called Subject – Predicate, where the subject is the first item in the sentence and the Predicate refers to the rest, including the verb in all its forms and the Object of the sentence. The subject is the focus, and the predicate is the commentary on the predicate. This is the simple form of sentences, and they may be made very much more complex by the use of co-ordinate and subordinate clauses in the Subject or Object, as well as using conjunctions which may link sentences, or be part of a Prepositional Phrase. The subordinate clauses may have a non-finite verb, whereas the main clause of the sentence has to have a finite verb. The technical aspects of this paragraph will be explained in sections below.

[1] *The man / eats the food.*

    Subject    Predicate

[2] *The girl / has eaten/ the ice-cream.*

    Subject    Verb    Object

With the variation in the passive:

[3] *The ice-cream / was eaten / by the girl.*

    Subject    Verb    *by*-Object

[4] A sentence with an object and indirect object:

> *The teacher / gave / the girl / a book.*
> Subject      Verb     Indirect Object    Object.

All these constructions are possible in the African languages:

[2a] *The servant is hunting springbuck. = Motlhanka otsoma ditshephe.*

[3a] *The goats are being bought by me. = Dipodi direkwa ke nna.*

[4a] *I am writing my mother a letter. = Ke kwalala mme lokwalo.*

English has the reputation for having very complex syntax, probably because it does not have case and gender, and elements can still move around the sentence. African languages on the other hand have concord, which is daunting for English speakers.

The concord system gives a rhythmic and alliterative nature to the language, for example in:

[5] **Batho botlhe bakebaboditseng bare bone gabaitse.** (All the people whom I have asked say that *they* do not know.)

The singular and plural have different concords at the beginning of the word: e.g.

*motho* (person)      *batho* (people)

*legodu* (thief)      *magodu* (thieves)

*selepe* (axe)      *dilepe* (axes).

Cole says that SeTswana has nine noun classes, but he includes singular and plural as one class; other people say there are fourteen noun classes. English, on the other hand, has very simple plurals, simply *–s* or *–es*.

English has been named as "noun-heavy", whereas the African languages are "verb heavy". What this means in practice is that English can front load the subject clause or heavily load the object clause – a common strategy in textbooks, because it reduces the number of separate sentences needed. English also makes use of interrupting clauses that young readers have to become familiar with. Let us have a look at noun-heavy and verb-heavy.

Perera (1986) gives the following sentences that occur in non-fiction written for children:

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[5] *The phantom General Ludd's army of angry stocking-frame knitters* had attacked the house of Hollingworth. (10 words)

[6] *The remains and shapes of animals and plants buried for millions of years in the earth's rocks* are called fossils. (17 words)

[7] *The few which are large enough to survive the fall through the air and actually reach the ground* are called meteorites. (18 words)

These types of sentences are generally not found in narrative texts, and we rarely see them in African languages, which are not favoured for children's textbooks. The same is true of the following two constructions.

An interrupting clause:

[8] Foot stirrups, *which clearly help balance, support and weight transfer in horseback riding*, were not in use in the West until A.D. 750. (12 words)

English can also make sentences with multiple embeddings in non-fiction:

[9] The first people to improve British roads since the Romans were groups of merchants
    *who formed trusts or companies*
        *which mended a part of the road and charged the people*
            *who used it.*

There are three embedded clauses here. We know that children when first encountering such sentences may battle to extract the meaning.

African languages (this is certainly true of SeTswana) have fourteen verbal extensions, although only eight are in regular use:

(a) Passive (This is used much more frequently than in English.)

(b) Neuter – *become broken* (agency is unclear)

(c) Applied – indicates that the action is carried out on behalf of, to the detriment of, or with respect to thing or place.

(d) Causative – cause to do, or make to do.

(e) Extensive – action carried out intensively, forcefully and sometimes repeatedly.

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(f) Reciprocal – the action is carried out mutually by two individuals= "each other".

(g) Reversive – the action is reversed or undone = "tie" versus "become untied".

(h) Frequentative – formed by the reduplication of the verb stem, often with the added idea of indiscriminate, careless, aimless or inopportune action.

Note that all these meanings can be expressed in English, but we would have to describe the extra meaning in additional words.

One last point of contrastive analysis here is the formation of questions: English has sentence/clause initial Wh-words such as *who, what, where, who* and *how*. These occur at the beginning of a sentence or the beginning of a clause. The situation is quite different in SeTswana. Simple sentences may be prefaced by A, as in:

[10] A oitse Setswana? ( do you know Tswana?)

Interrogative sentences are formed by words that are different parts of speech. These include:

*-mang?* (who?, whom?)

*-tsiang* (what description?)

*-fe* (which?)

*-ng* (what? what kind?)

*-kae* (how big? how much? how many?)

*-kae* (where?)

*-leng* (when?)

*-jang* (how?).

It is important to note that none of these interrogative forms are used *initially* in a sentence. Here are some simple examples:

[11] Lobatla mang? (Whom do you want?)

[12] Keeng? (What is it?)

[13] Lotsile jang? (How did you come?)

[14] Ke bokae? (How much?)

In the Threshold Project we discovered that Grade 5 children did not understand the English Wh-questions, even in a Grade 2 text. We therefore deduce that the position in the sentence may cause difficulties in comprehension.

## 1.5.2 Syntax and readability

Lanham (1990)[12] pointed out aspects of syntax that are likely to cause reading problems. He pointed out four examples of structures taken from Grade 5 texts to illustrate the difficulties they present to young L2 readers.

- Certain forms of ellipsis which he thought had little African language equivalence:

[15] Mary did want to go but Ø not Ø now.

[16] John promised his friend that he would Ø.

- Nonequivalent syntactic structures.

Substitution and alternation (which we saw in the section on cohesion) should be avoided as it seems to be an English-specific modality.

The nominal group with specific structure, e.g. perfect participle in adjectival function: *the opened letter; the cane-covered hills.* Noun modifier and noun head of the noun phrase. E.g. *paper hat; clock face.* Gerunds: *Mary's mother didn't like her playing with me.* Noun plus infinitive: *in days to come; an offer to help.*

- Convoluted syntax that makes the SVO order obscure: *To grow, plants need water. Running to meet her were Nomsa and her friend.*

- Sentence structure overload, which we dealt with earlier (also pointed out by Perera).

## 1.5.3 Basic description of English syntax[13]

In this section, basic elements will be described or listed, and typical sentences from Grade 3 and 4 illustrated.

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[12] Lanham, L.W. (1990) The readability of narrative text for the primary school ESL reader. In: *Searching for Relevance. Contextual Issues for Applied Linguistics in Southern Africa.* Chick, K. (ed) SAALA, Durban. As reported by Langhan, D.P. (1993) *The textbook as a source of difficulty in teaching and learning.* Final Report of the Threshold Project 2. HSRC: Pretoria.

[13] This subsection is based on Burton-Roberts, N. (1986) *Analysing Sentences: A Introduction to English Syntax.* London: Longman.

The concept of *structure* is fundamental to the study of syntax. We are dealing with complex structure, which means that:

(a) it is divisible into parts called *constituents*

(b) there are different kinds of parts – different categories of *constituents*

(c) the constituents are *arranged* in a specific way

(d) each constituent has a specifiable *function* in the structure of the thing as a whole.

Parts may be divisible into further parts, in which case we have to talk about a hierarchical form. For the last five decades, English has been analysed into **tree diagrams** of different sorts. A very simple one is demonstrated below:

[17] David carries a dagger.
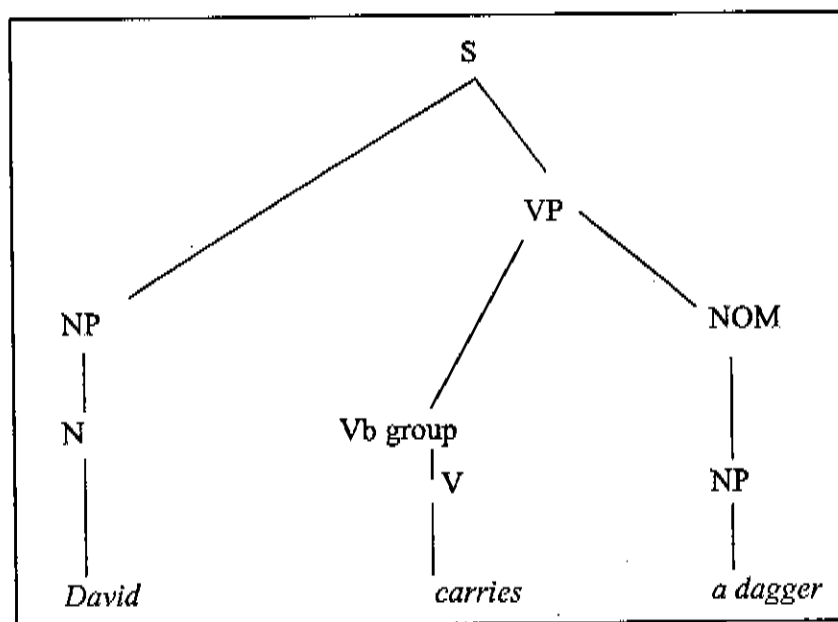


Here may be seen the simple Subject-Predicate distinction (the VP contains a verb and a noun phrase). *David* is a simple noun phrase without any modification such as *the young, virile,* which pre-modifies the head noun *David.* In the same way *carries* is a simple progressive form of the verb. We could have had, *might have been carrying,* the past modal progressive form. Finally, the NP object could also have been more complex such as if preceded by *a sharp and dangerous*

*(dagger)*. The Noun Phrase may carry a subordinate clause such as *who is my silly cousin*. We can also add a non-finite clause (of purpose) *to threaten his brother*. Putting all these complex forms together, we could have a sentence such as *David, who is my silly cousin, might have been carrying a sharp and dangerous dagger to threaten his brother*. At this stage I am not going to draw a tree diagram for this sentence, but the reader might well expect to get a much more complex tree diagram than the one above.

The **noun phrase** can comprise a proper or common noun or a pronoun. It may be preceded by a determiner, such as the article *the* or *a*, which may be preceded by a pre-determiner *for example, all of (the)*. An adjective may also modify a noun, as in:
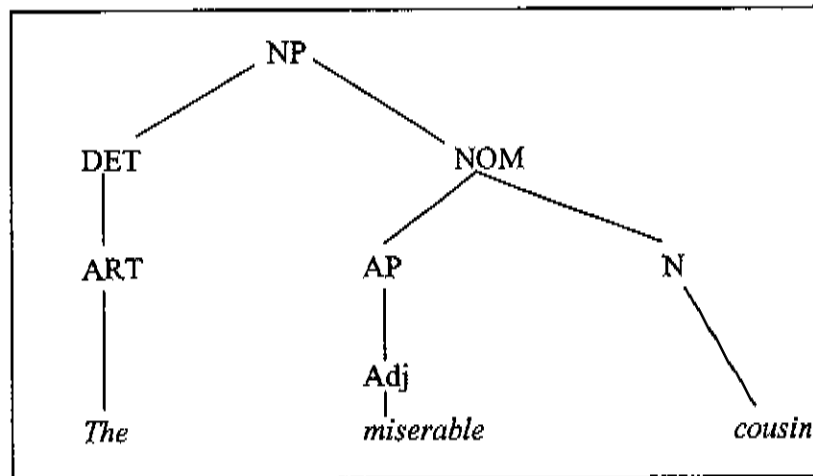


Adjectives are the most common pre-modifiers of the noun within the NOM constituent. By the same token, the noun can take post-modifiers – either prepositional phrases or certain types of adjectival phrase.

[18] A drive to the village <u>in the valley</u>.

**Adjectives** modify nouns (simply put) and **adverbs** modify verbs. Both of these may occur in phrases. There are comparative and superlative adjectives and adverbs. The last major category is that of **prepositions** or **prepositional phrases**. The second is composed of a preposition plus a noun phrase. There are **co-ordinate** phrases, which I illustrated earlier, with *sharp and dangerous*, which are co-ordinate adjectives; but co-ordinate noun phrases are also possible, as in: *the clowns and the acrobats*.

There are six main categories of **verb**.

(a) transitive verbs, which take an object, e.g. *I hit David.*

– subject – verb – direct object

(b) intransitive, which do not take an object, e.g. *David was running.*

– subject – verb

(c) ditransitive, which take an object and an indirect object, e.g. *David gave me the dagger.*

– subject – verb – indirect object – direct object

(d) intensive, which tells us more about the subject, e.g. *David was feeling miserable.*

– subject – verb – subject predicative

(e) complex transitive: these are complemented with a direct object (in italics) and like intensives (in bold), e.g. David finds *his own jokes* **extremely funny**

– subject – verb – direct object – object predicative.

(f) prepositional verbs: these are verbs which must be followed by a prepositional verb, e.g. *David looked at his terrified brother.*

– subject – verb – prepositional complement.

It can be predicted from this list of verb forms that they will help to form trees with different constituents.

We must make the distinction between **adjuncts** and **disjuncts**. The difference may be seen in the following pair of sentences:

[18a] David confessed everything frankly.

[18b] David confessed everything, frankly.

In (a) It is David who made a frank confession. In (b) the *frankly* refers to how the speaker regards David's confession.

We have dealt with **conjunctions** in the section on cohesion, but they can just as well be incorporated into the description of sentences.

Verbs take **auxiliaries**. There are four possible (optional) constituents:

(a) **modal**, e.g. *can, will, shall, may, could, would, should, might*

(b) **perfect aspect**, the verb **have**. The verb that follows *have* always appears in its perfect non-finite participle form. *E.g. give/given; delay/delayed.*

(c) **progressive aspect**: **be** is the progressive auxiliary, and it has to always be followed by a **V-ing** form. E.g. *David is being a nuisance again.*

(d) **passive**[14] **voice**: **be** is the passive auxiliary verb, e.g. T*he dagger has been stolen (by David).*

In the section on cohesion, I talked about "the dummy *do* ". It may help to explain it again slightly differently here. In the question form, the auxiliary which moves to the front is called an operator in that position.

[19] He <u>had</u> given the girl an apple.

[19a] <u>Had</u> he given the girl an apple?

Where the verb expression has no auxiliary in the positive declarative sentence, (dummy) *do* is introduced when an operator is required:

[20] It *rained* steadily all day.

[20a] *Did* it rain steadily all day?

[20b] No, it *didn't.*

There can be sentences (clauses) within sentences. One of the frequently used complementisers is **that:**

[21] <u>That</u> David was not at home saddened her.

---

[14] According to Cole, the passive is used more in African languages than in English. However, it has to specify the object of the sentence, e.g. *The dagger was stolen by <u>my silly cousin</u>.*

[22] Ann claims <u>that</u> he was at home.

[23] I advised him <u>that</u> his shirt was hanging out.

[24] The most upsetting thing is <u>that</u> we have lost our way again.

[25] She made him aware <u>that</u> he had disappointed her.

[26] The fact <u>that</u> you received no birthday card from Ann does not mean (<u>that</u>) she doesn't love you.

*That* can also be used as a kind of introduction to a *relative clause*.

[27] The news <u>that</u> (=which) Ann gave David made him very sad.

A *main/finite clause* carries a verb which carries a tense; a *non-finite* clause does not have a verb.

Look at the following two examples:

[27] The instrument that one <u>should use</u> here is a sharp knife.

[27a] The instrument <u>to use</u> here is a sharp knife.

The non-finite clause is found in many positions but simply to recognise it here is sufficient.

One of the very important parts of this phase of the research is to establish the complexity of Language (as a Subject) against language as a Medium of Instruction. As an example, a page of a Grade 3 Language book is reproduced on the next page, with a few comments. It is followed by a page from the reader in the same scheme.
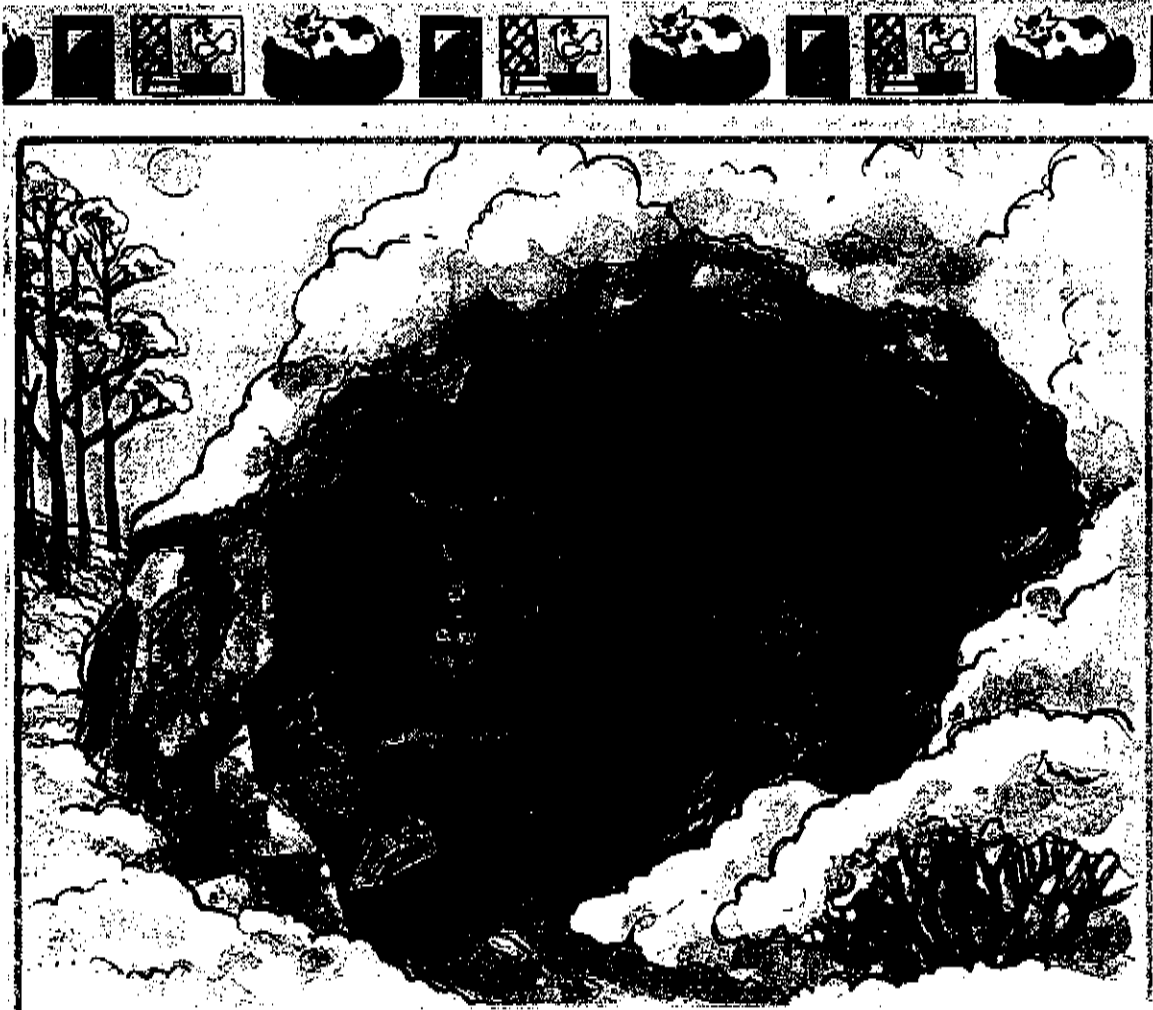
41

Some bears live in places where it is hot in summer and very cold in winter. In winter the ground is covered with snow and ice and it is difficult to find food. The bears go to sleep in dens during the winter. 'We say they hibernate. 'When spring comes and it gets warm, the bears wake up and look for food.

Baby bears are called cubs and they are born in the den.

B 'Write a short description of each home. Use the words in the word box if you need to.

| hot | cold | windy | sheltered | dark |

The second last sentence here is quite complex:

# When spring comes and it gets warm, the bears wake up and look for food.

The first clause, preceded by *warm* is a subordinate pair of sentences, and the main sentence also has two clauses, where the second one is missing a subject (= they).

Here is the page from the reader:

A week later, all the dustmen got sick. No-one came to take away the rubbish. All over town the bins got fuller and fuller. The people needed the dustmen to help them.

"We can't manage without them," they groaned.

Then the mayor got better.

"What are you going to do about the rubbish?" the people cried. "Can you drive a truck?"

"I'm much too important for that," said the mayor. But when the rubbish got worse, he thought again.

Here is a sentence that starts with a conjunction and then an adverbial clause of time. There is *he* referring backwards into the text, and then *thought again* is a verb with an adverb. What is important to note here is that while the structure is fairly complex, the content is not.

The reader is familiar with the sentences in the Science text. One is analysed here for the sake of comparison (see tree diagram below). *Sometimes the family eats one of the grown-up chickens.*

The good news at the initial stages of the research, when the model was first shared, was that workshop participants did not have to produce such tree diagrams. Another way to represent this sentence with effectively the same information is:

[[Sometimes]][[the][family]][eats][[[one][of]][[[the]]][[grown-up]][chickens.]]]]

Regrettably, each square bracket should have a subscript indicating the function of that constituent and sub-constituent. This is guaranteed to give as much indigestion as the tree-diagram. Suffice it to say is that there is a difference between the 150 sentences analysed in the Science text, and the 40 sentences analysed from the Grade 3 reader and learner's book. The details of such an analysis is reserved for another document in this series.

Let us turn to the last section in this chapter, and that is vocabulary in a model of language analysis.

## 1.6 Vocabulary

The syllabus suggests that L2 learners should have learned 900-1500 words in the first three years of learning English. In the Threshold Project we were lucky enough to have typists to type in whole books across the curriculum for us, and we found that these textbooks had 7 000 words or 4 500 lexemes (words with common stems). This was in contrast to the 700 words the children would have learned, had they been perfect learners of the two L2 schemes that were analysed. In the present study, estimates of vocabulary from four schemes will be made.

**Tree diagram:** *Sometimes the family eats one of the grown-up chickens.*

S
COMP — AP — *Sometimes*
S
NP — DET — ART — *the*
NOM — N — *family*
VP
Vb Group — V — transitive — *eats*
NP
PREDET — QUANTIFIER — *one*
ART — P — *of*
NOM — DET — Art — *the*
NP — AP — A — *grown-up*
N — *chickens*

45
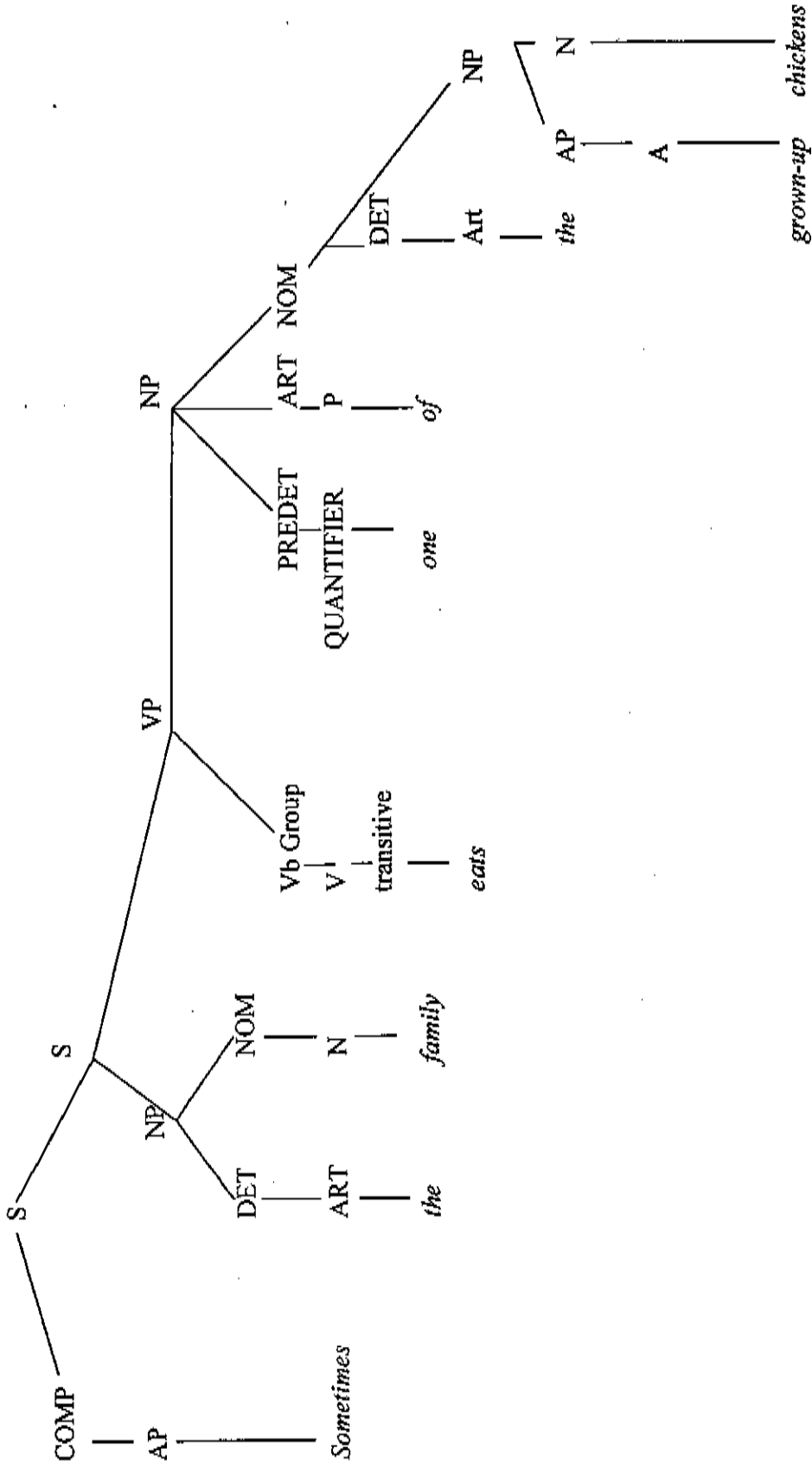
Inserted here is a slightly altered extract from Langhan (1993:17-19)[15] on vocabulary and vocabulary and readability:

> According to Campbell (1987:123)[16], vocabulary is the aspect of reading most often identified by readers as difficult. A wide background knowledge of the topic in the text can make reading less traumatic for pupils. However, if pupils are confronted with a new topic, couched in a language they have not yet acquired adequately, vocabulary can be a profound obstacle to comprehension (Saville-Troike, 1984[17]; Williams and Dallas, 1984[18]; Williams, 1985). It is therefore important for an author to know what reading vocabulary a reader brings to a text (Van Rooyen, 1990:61)[19].
>
> On the question of establishing the reading vocabulary of the Grade 5 L2 reader, Lanham (1990 informal notes) points out that word-frequency lists, in the tradition of Thorndike and Lorge in the 1940s (quoted in Bransford, Stein and Shelton, 1979)[20], are of no use in the South African context as pupils' exposure to English by this stage, is often so poor that their vocabulary does not relate to such frequency lists at all. Williams and Dallas (1984:208) also point to a number of problems associated with the selection of appropriate vocabulary for the content area textbooks as follows:
>
> - Vocabulary lists in an English syllabus that are taught in English lessons may well be (and frequently are) markedly different from the actual command of vocabulary that pupils possess.
> - The L2 English syllabus is usually general in nature, i.e., it gives scant regard to the purpose for which English is taught. Consequently vocabulary lists in the English syllabus contain few words that are included in the language of content area subjects.
> - Authors of content area textbooks are unwilling to accept the strictures of a vocabulary list.
>
> Lanham suggests that the only real way to assess young black L2 readers' probable vocabulary is to examine the English stories and books that they have been exposed to in their previous school experience. In one such study, Macdonald (1987:4)[21] estimates that there is a disparity of

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[15] Langhan, D. (1993) *The textbook as a source of difficulty in teaching and learning.* Pretoria: HSRC.
[16] Campbell, N. (1987) Adapted Literary Texts and EFL Reading Programme. *ELT Journal.* 41:2. 132-135.
[17] Saville-Troike M (1973) Reading in the audiolingual method. *TESOL Quarterly.* 7:4, 395-405.
[18] Williams, R. and Dallas, D. (1984) Aspects of vocabulary in the readability of content area L2 textbooks: a case study. In: Alderson, J.C. and Urquhart, A.H. (eds) *Reading in a foreign language.* New York: London.
[19] Van Rooyen, H. (1990) *The disparity between English as a subject and English as a medium of learning.* Pretoria: HSRC. Threshold Project Final Report.
[20] Bransford, J.D., Stein, B.S. and Shelton, T. (1984) Learning from the perspective of the comprehender. In: Alderson, J.C. and Urquhart, A.H. (eds) *Reading in a foreign language.* New York: London.
[21] Macdonald, C.A. (1987) *Cultural Views of Learning and their Influence of Teaching Styles.* Unpublished working paper of the Threshold Project.

approximately 4.500 lexemes (or core/root words) between the English vocabulary learnt up to the end of Grade 4, and the vocabulary required to cope with content subject textbooks written in English for Grade 5.

The distinction between terminology and non-technical terms in content subject textbooks is an important one (Jeffs, 1980[22]; Davies and Green, 1984[23]). The study of geography demands the use of subject-specific terminology (register terms) which Evans (nd:585) defines as 'a word or phrase which, when used in the context of a particular academic discipline, carries a single specific meaning'. The use of such terminology may create comprehension problems for young ESL readers who do not know the subject-specific meanings of the words, or the meanings of other familiar words used in new specialized ways.

The comprehension of non-technical vocabulary may also create reading comprehension difficulties, because readers have to know the meaning of most of the words used in a text to make sense of the text as a whole. Jeffs (1980) suggests that while teachers are often extremely diligent in their efforts to explain obviously difficult words, they are likely to take for granted pupils' recognition of more common words. Consequently, it may be that a child is able to grasp a one-to-one connection between a newly explained term and the object or idea that it denotes, but still find that this and related terms are log-jammed in his mind by his inability to use the 'thinking words' himself.

The schema-theoretic view of reading has also shed new light on views of vocabulary development and word recognition crucial to successful bottom-up decoding skills (Carrell, 1988b:242)[24]. Unlike traditional views of vocabulary, current thinking converges on the notion that a given word does not have a fixed meaning, but rather it has a variety of meanings around a 'prototypical' core, and that these meanings interact with contextual and background knowledge. Thus, Carrell says, 'knowledge of individual word meaning is strongly associated with conceptual knowledge' – that is, learning vocabulary is also learning the conceptual knowledge associated with the word'. On the one hand, an important part of teaching background knowledge is teaching the vocabulary related to it, and, conversely, teaching vocabulary may mean teaching new concepts and new knowledge.

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[22] Jeffs, R.B. (1988) Technical terms. In: Jeffs, R.B. and Gatherer, W.A. (eds) *Language Skills through the Secondary Curriculum.* Holmes MacDagall.
[23] Evans, J.D. (n.d.) Vocabulary Problems in Teaching Science. *School Science Review.* 55:192, 589-590.
[24] Carrell, P.L. (1988) Interactive Text Processing: Implications for ESL reading classrooms. In: P. Carrell, P. and Eskey, D (eds) *Interactive Approaches to Second Language Reading.* Cambridge: Cambridge University Press.

The above overview of recent literature on vocabulary in content area textbooks raises the following ten significant points about vocabulary and how it is likely to affect the readability of textbooks prescribed for young L2 pupils:

- Words of high frequency or familiarity to the reader will contribute to more readable writing. For example:

  *give* instead of *assign*

  *wind* instead of *breeze*

  *mealie* instead of *maize*

  *seed* instead of *grain.*

Conversely, Lanham (1990:176)[25] believes that unknown words, unsupported by context, is a major cause of reading difficulty. In particular, ESL readers can be expected to have difficulty with text where there are many unknown words. These difficulties are compounded when a text does not provide semantic reinforcement in the form of known vocabulary.

- Concrete words are more readable than abstract words. One abstract word by itself, although less readable, is not likely to pose a major problem for the ESL reader. But in association with other contributions to impaired readability like long sentences, complex syntax and paragraph structure, one abstract word might be the decisive factor for impaired comprehension. 'Abstract words are a particular problem for the L2 reader when presented in quick succession' (Williams, 1985:12)[26].

- Use specialist terminology only when necessary. Williams (1985:17) writes that specialist terminology makes for economic writing with precise meaning, but that writers should be sensitive to terms that may not be familiar to a reader, and assist a reader to their meaning in cases of doubt.

- Active verbs are more readable than passive verbs. An active verb is shorter, more familiar, and thus promotes a stronger mental image, for example, the active verb in 'The miners *are digging* for gold' is more readable than the passive verb in 'The gold *is being dug* for by the miners'. Also, the active verb marks the subject-verb-object (SVO) relationship more clearly than the passive verb.

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[25] Lanham, L.W. (1990) The Readability of Narrative Text for the Primary ESL Reader. In: Chick, K. (ed) *Searching for Relevance, Contextual Issues in Applied Linguistics in Southern Africa.* SAALA, Durban.
[26] Williams, R. (1985) *Readable Writing: A manual for authors and editors of educational textbooks.* Hongkong: Longman.

In her study of the differences between narrative and expository texts, Perera (1986:58)[27] found that three-quarters of the verbs in narrative passages were active and dynamic. On the other hand, in expository texts, only half of the verbs were active. She argues that 'the heavy use of passive verbs ... contributes to the lack of momentum evident in so much expository text'.

- Writers need to be careful that when intensifiers are used they are necessary and appropriate in meaning. This will ensure that a young reader's perception of degrees of intensity is consistently and correctly reinforced. Examples of the three main categories of intensifiers are:

     Emphasizers – *definitely*

     Amplifiers – *completely*

     Downtoners – *partly*

- Where possible avoid homonyms (words which have the same sound and/ or spelling but have different meanings). The following examples illustrate the potential for confusion:

     Same spelling, different sound:

     *lead(v)* – to go before, show the way, etc.

          *(n)* – heavy (soft, blue-grey) metal.


     Same sound different spelling:

     *bare (adj)* – without clothes (naked person) – without leaves (a tree)

               – empty (a cupboard)

     *bear(n)* – a large, hairy animal

          *(v)* – to carry a heavy load.


     Since weaker L2 readers often read on a word-by-word basis, and often lack the ability to draw on contextual clues, they are likely to use the primary meaning of the homonym and/or the meaning within their contemporary experience. This may or may not be the meaning intended by the author. Very slow reading means that the reader may not get the whole clause, or the main clause in relation to a subordinate clause. This valuable information is lost to the reader.

- For word-by-word readers, an idiom (a phrase which means something different from the meanings of the separate words), can cause immense difficulty (Williams, 1985 and Lanham, 1990). In this category Lanham (1990:178) includes figures of speech, fixed expressions,

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[27] Perera, K. (1986) Some linguistic difficulties in school textbooks. In: Gilham, B. (ed) *The Language of School Subjects*. London: Heinemann.

metaphor and phrasal verbs as serious problem areas for young ESL readers. For example:

> To be *hard up* (to be without money – not: not soft, not down)
>
> He *slipped up badly* (made a serious mistake – not: fell)
>
> This will *fit the bill* (it will do the job, etc. – not: fit onto or into ... )

- Take advantage of a reader's familiarity with collocations. Words collocate when they accompany each other in a way that sounds natural. For example, for the average Western adult, *strong* collocates with *coffee*, but *powerful* does not. Lanham (1986:6)[28] points out that:

> The words in our vocabulary are extensively linked with others in concurrence probabilities arising form formulaic expressions, collocations, idioms and factual knowledge of the world, in fact, all favoured ways of saying things .... It should be noted that having these co-occurrence expectancies is a product of extensive exposure to reading texts in the language or living in the culture; they are not the products of rules.

- Obscure reference words are confusing. Lanham (1990a:178) refers to a reader's difficulty in finding a referent in the real world, when a reference is not obvious for various reasons. For example: ... *his four-footed friend:* 'You can have the puppy if you look after it: said mother. And *it* became his.'

- Obscure substitute terms used as a cohesion device are confusing. Lanham (1990a:178) refers to the use of substitute words whose relationship with the words they are substituting is not clear to the ESL reader. For example:

> The *mother* and child walked up the hill towards the store carrying *two brown carrier bags*. 'It is hot today', said the *lady* as she put down her heavy parcels."

*(End of extract)*

We do not have the facility of typing whole books into the computer, but I did a much simpler exercise here. I analysed the first unit the children learned in Science and then also went on to analyse the number of words in a unit in the middle of the book. In these two places, 50 sentences in each unit were analysed syntactically/grammatically, and this analysis is presented elsewhere.

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[28] Lanham, L.W. (1986) Another Dimension of Readiness to Learn in the Second Language. In: *The Role of Language in Black Education.* HSRC Research Programme No.6. Pretoria: HSRC.

There are 227 lexemes (word stems) in this first selection of text.

There are 156 lexemes (word stems) in the second extract.

In the second Language scheme analysed, there were 323 words in the whole of the Grade 2 Learner's Book. Below is an extract from a Grade 2 story from the second scheme: There are 60 different lexemes (word stems) in the whole story (see p.55). This is one of five stories in an 84 page book.

This concludes the section on vocabulary.

# 1.7 BICS/CALP and Academic Language Functions

The problems encountered by L2 children learning in L1 have been documented, and their performance has been regarded as misleading, especially to their class teachers or special teachers wanting to mainstream L2 children. L2 children immersed in an L1 language learning environment can master BICS (Basic Interactive Communicative Skills) in two to three years. However, given this, teachers are ignorant of these children's CALP (Cognitive Academic Language Proficiency) performance, which is much more difficult to ascertain, where estimates for acquisition range from five to seven years, and through to 10 years have been given (without concrete evidence to my knowledge).Thus L2 children who are *not* immersed in an L1 environment would find L1 CALP very difficult to achieve, but achieved it must be for these children to use CALP in secondary and tertiary education. In the South African education community, equity must be achieved as soon as possible.

BICS and CALP are illustrated below.

Cummins (1984)[29], who was the developer of the BICS/CALP distinction did not flesh out the kinds of language with examples. O'Malley (1988) gave us the four valued diagram quadrants with the labels exemplified. Macdonald (1990 and current) fleshed these out further. However, these are but task exemplars and we need more general functions as exemplars. We call these Academic Language Functions (ALF), and O'Malley (1992) has given us the template for this.

I therefore took O'Malley's (1992) list and fleshed out Moodie's (2004) list of process skills. After this list was drawn up, the revised NCS was compared with it, for both L1 and L2. These values are placed immediately to the right of the examples in every use of the template. Both L1 and L2 showed up very poorly in an interpretation of the Curriculum. It must however be admitted that the list of ALFs is defined at quite a high level. What is required in the future is an edited list of exemplars for the Foundation Phase, where children's skills are still relatively undeveloped. However, this situation is likely to change rapidly in the Intermediate Phase.

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[29] Cummins, J. (1984) *Bilingualism and special education: Issues in Assessment and pedagogy.* Cleveland, UK: Multilingual Matters.

## 1.7.1 BICS and CALP illustrated



| I | III |
|---|---|
| II | IV |
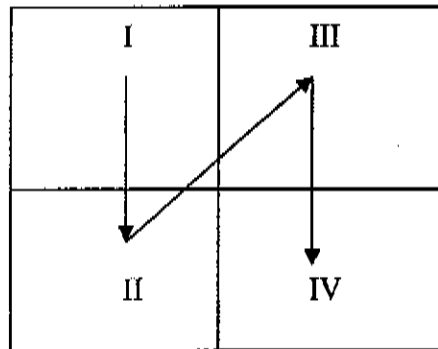
Read in the direction of the arrows.

**Context-embedded    I**
   Cognitively undemanding

Language drills with context
Face-to-face conversation on formulaic lines
Keeping a diary
Playing a simple game, where roles and routines are modeled
Art, music, physical education, where model has been presented
Vocational subjects, e.g. woodwork, where skills may still be learned by imitation

**III**
Cognitively demanding

Demonstration of a process
Content subject explanation with demonstrations
Answering higher-level questions, e.g. temporal sequence, cause-effect relation
Making oral presentations
Hands-on-science activities
Maths-computation problems
Maths word problems with concrete objects or pictures
Heavily illustrated textbooks
Making models, maps, charts

**Context-disembedded    II**

Uncontextualised language drills
Answering lower-level questions
Writing answers to lower-level questions
Predictable telephone conversations
Shopping lists, recipes
Informal note/message of predictable topic
Directions for taking medicine
Copying words and sentences
Filling out simple forms
Writing simple narrative of personal experience (knowledge telling)

**IV**
Content subject explanation without demonstration
Reading comprehension without textual support
Reading for information in content subjects, e.g. to extract topic or main ideas
Maths word problem without illustration (with increasingly difficult syntax)
Compositions/essays on topics immediately outside child's experience
Research and report writing where different information sources need to be consulted
Writing answers to higher-level questions
Standardised achievement tests

53

The template for ALF is given in Appendix I. It is important to note two things: first, that this template cannot be used with L1 texts because they are all stories (fiction and non-fiction) and not part of a language scheme[30], and second, it was only for the L2 schemes that the actual number of occurrences in the Language books counted. For Life Skills and Numeracy only their occurrence is noted. (This is a situation that could be altered at a later date.)

## 1.8 Conclusion

In this document I have attempted to show the different levels of language analysis that we may use as skills to analyse school texts – both language schemes and well as textbooks ("learning and teaching support material") – going from the most global down (discourse, cohesion, syntax and vocabulary). Then there is the model for analysing the cognitive functions in language. Where possible, reference has been made to an African language, in this case SeTswana. This is to enable these speakers to have a starting point from which to look for similarities, as well as looking at constructions, that have to be dealt with differently. In capacity-building workshops, real texts are used to teach these levels. Researchers are then able to watch language usage in classrooms, although to do this more information is needed on spoken discourse.

---

[30] The texts we have been able to source are from schools who make their own Leaning Programmes while using readers and story books from other English-speaking countries.

## APPENDIX 1: Academic Language Functions

| Language | Student uses language to: | Examples | L1 NCS | L2 NCS |
|---|---|---|:---:|:---:|
| 1.Following instructions | Read instructions to make or do something | Interpreting information while reading instructions | ✓ | ✓ |
| 2. Observing and comparing | Notice things that seem pertinent | Using senses at hand or watch something | ✓ | – |
| 3. Seek information | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, and how, to collect information in increasing competency | ✓ | – |
| 4. Measuring and estimating | Use measuring instruments and making good guess | Use instruments to answer questions that require accurate information | – | ✓ |
| 5. Recording | Measure carefully | Write down, make notes, trace and sketch, picture complete diagrams, fill in data in tables | ✓ | – |
| 6. Analyse | Separation of whole into parts | Tell parts or features of object or idea | ✓ | ✓ |
| 7. Compare | Analyse similarities and differences in objects or ideas | Indicate similarities and differences in important parts or features of objects or ideas, outline/ diagram/ web. Indicate how A contrasts/ compares with B | – | – |

55

| Language | Student uses language to: | Examples | L1 NCS | L2 NCS |
|---|---|---|---|---|
| 8. Classify | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B, or how A and B go together but not C and D. Explain why things go together | -- | -- |
| 9. Interpreting information | Interpreting information in different forms | Using texts, diaries, drawings, diagrams, models, tables and graphs | ✓ | ✓ |
| 9.1 Changing the form | Interpret different forms of information | Changing forms of information to express understanding | ✓ | ✓ |
| 9.2 Applying concepts | Know when to use concepts and how | Create useful ideas that summarise a number of experiences | ✓ | -- |
| 9.3 Making inferences | Infer that which is beyond the obvious | Conclusions based on different sources of information | ✓ | -- |
| 9.4 Seeing parts and stating relationships | Try different possibilities and find relations | Describe what has been done and how relationships have been determined | -- | -- |
| 10. Predict | Another form of interpretation; predict implications | Predict implications from actions or from stated text | ✓ | -- |
| 11. Inform | Report, explain, or describe information or procedures | Retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow-charts, posters, diagrams, pie-charts and bar graphs | ✓ | -- |

| Language | Student uses language to: | Examples | L1 NCS | L2 NCS |
|---|---|---|---|---|
| 12.Hypothesize | Hypothesize consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported | ✓ | – |
| 13. Justify | Give reasons for an action, a decision, or a point of view | Tell why A is important, why you selected A, or why you believe A | ✓ | – |
| 14. Persuade | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position | ✓ | – |
| 15. Solve problems | Determine solution using models and theories | Given stated problem, reach solution | ✓ | – |
| 16. Synthesize | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem | – | – |
| 17. Evaluate | Assess the worth of an object, opinion, or decision | Select or name criteria to evaluate, prioritise a list and explain, evaluate an object or proposition, indicate reasons for agreeing or disagreeing | ✓ | –. |
| TOTAL | | | 12 | 5 |

Sources: O'Malley (2007); Moodie (2004) and RNCS (2002) for Home Language (L1) and First Additional Language (L2).

## APPENDIX II: Conjunctive relations in English

Source:

| Summary Table of Conjunctive Relations | | | | |
|---|---|---|---|---|
| **External/ Internal** | Internal (unless otherwise specified) | | | |
| **Additive** | *and, and also, nor, and ... not, or, or least* | *furthermore, in addition, besides, alternatively, incidentally, by the way* | *that is, I mean, in other words, for instance, thus* | *likewise, similarly, in the same way, on the other hand, by contrast* |
| **Adversative** | *yet, though, only, but, however, nevertheless, despite this* | *in fact, actually, as a matter of fact, but, and, however, on the other hand, at the same time* | *instead, rather, on the contrary, at least, rather, I mean* | *in any case, in either case, whichever way it is, it is in any case, anyhow, at any rate, however, it is* |
| **Causal** | *so, then, hence, therefore, because of this, for this reason, on account of this, as a result, in consequence, for this purpose, with this in mind* | *for, because, it follows, on this basis, arising out of this, to this end* | *the, in that case, in such an event, that being so, under the circumstances, otherwise, under other circumstances, otherwise* | *in this respect, in this regard, with reference to this, otherwise, in other respects, aside from this* |
| **Temporal** | *then, next, after that, just then, at the same time, previously, before that, finally, at last, first ... then, at first ... in the end* | *at once, thereupon, soon, after a time, next time, on another occasion, next day, an hour later, meanwhile, until then, at this moment* | *then, next, secondly, finally, in conclusion, first ... next, ... finally* | *up to now, hitherto, at this point, here, from now on, hence- forward, to sum up, in short, briefly, to resume, to return to the point* |

Adapted from Halliday, M.E.K and Hasan, R (1976) *Cohesion in English.*
London: Longman

# CHAPTER 2: ANALYSIS OF L1 TEXTS

## 2.1 Introduction

When this project was conceptualized, there seemed to be a satisfactory balance between looking at L2 (English as First Additional Language) courses and at L1 (English as Home Language) courses. Unfortunately it was close to the end of the year, and we were not able to get books from Polokwane Schools. On the booklist, only one L1 book from a local publisher appeared. We needed to source further appropriate materials; and all those that we found were published abroad. Considering the small market for L1 in South Africa, this is not surprising. The materials we found were produced for bigger markets such as Britain and Australia.

The materials that we finally sourced are the following:
1. A "difficult" story from a school's reading room, indicated by teachers as being suitable for the top end of Grade 3.
2. A less difficult story – as part of a reading scheme – and explicitly for Grade 3 level.
3. A non-fiction story.
4. A non-fiction, expository text.

Text 1 is dealt with in the first section.

## 2.2 Text One: *The Magic People*

This is a 40-page story, published by Collins Educational, with numerous illustrations – 22 in all, mostly in colour. Some are half page illustrations, others smaller, and a few that spread across the top half of two pages. The illustrations give information about all the characters, as well as the principal actions in the story.

The story is about The River People, who lived in a valley, panned for gold, and farmed animals. In this idyllic setting there was only one prohibition, given to the people by the local soothsayer who lived in a cave. He said that the people were not to shoot swans, because the Magic People who lived in the mountains would take a life for a life.

Two boys (one the son of the king) were out shooting one day, without success. Quite frustrated, one impulsively shot a passing swan with his arrow. When the swan fell to the ground, it turned into a boy. The "myth" was true. The two boys buried the dead boy in a deep grave and hoped to get away with their misdeed. However, there was some retribution. No winds blew, so there was no rain. It became very hot, the grass went brown and the cattle and sheep had no forage. The deer in the forest disappeared.

Finally one of the boys told the wise man (soothsayer), who immediately stormed in to see the king, for it was his son's fault. The king's son should be sent to the mountains. However, his mother sent him south, and so he could not be traced. Finally the people decided on a substitute, and they chose an orphan boy who had but a devoted donkey: they were Dirk and Riff-Raff. Seth and Crow set upon him, tied him up and made for the mountains, with Riff Raff following loyally. Along the way Dirk and Riff Raff escaped and Seth and Crow returned to the village, preparing to flee to the south, but that afternoon the wind blew and clouds came up. Believing the curse to be requited, they stayed at home and never told anyone of their failure.

Dirk in the meanwhile went over the mountains and met the Magic People. He told them he was not the person who shot the swan, and so they took pity on him. The man whose son was killed adopted him as his son, and they even made provision for Riff Raff the donkey.

This story has a prototypical story grammar, where there is a problem that gets resolved by a lowly person with honour, who gets rewarded for his good actions.

"Come on, Riff-Raff," he said to the donkey. "Drink as much as you can now. We have got to follow that path."

They both drank as much of the ice cold water as they could. Then they set off along the path. There was a high wall of mountain ahead of them.

They came to the mountain wall. The path went on up the mountain in zig-zags, going from side to side.

Dirk and Riff-Raff made their way upwards, along the path. It was very narrow in places.

It was very steep, too, but Dirk and Riff-Raff were good at climbing. The mountain tops on every side were capped with snow, and sparkled in the sunlight.

It was a long way up. But when they came to the last part of the climb, the path was wider. They found that shallow steps had been cut in the rock. Riff-Raff trotted up them as if she had been climbing steps up mountains all her life. (She was used to climbing up to Dirk's room in the barn.)

Up they went, higher and higher, until at last they came to the top of the mountain wall, and looked down on the other side.

Dirk stopped. He stood quite still, staring. A beautiful valley lay below them. The sides of the valley sloped steeply down. There were fir trees in the lower slopes, and then rocks. The mountain peaks, covered in snow, rose high above them. There was a blue lake in the middle of the valley, and down near it the land was covered with green grass, full of flowers.

There were stone houses at the far end of the lake. Even from where he stood, Dirk could see that the houses were very beautiful. They seemed to be built of some white stone, with little towers, and pillars, and great windows, so that they looked almost as if they had been carved out of ivory.

"That's Riff-Raff!" he said. "That's Dirk's donkey! Dirk had that donkey up in the mountains, when we took him to the Magic People."

As soon as he heard about the donkey, Kell sent for Seth and Crow.

"Did you leave that donkey with the Magic People, when you left Dirk with them?" he asked.

Seth and Crow had gone back to the People of the River, and told them that they had handed Dirk over to the Magic People. No one knew what had really happened. The clouds had blown down from the mountains, and it had rained the day Seth and Crow got back. So Seth and Crow stayed by the river. They didn't go south, and no one ever questioned what they had said. Even Roth didn't guess the truth.

"Yes," said Crow. "We left Dirk and his donkey in the mountains, with the Magic People."

"That donkey followed the boy everywhere," said Seth. "When we made him a prisoner, the donkey came along too. It was nothing to do with us."

"Then the Magic People must have sent the donkey down to the deer," said Kell. "I must go and see Roth, and ask him what this means."

He went off at once to Roth's cave, and told him about Riff-Raff.

Roth listened to what Kell had to say.

"If the Magic People sent the donkey down to the deer, the deer must be friends of the Magic People," he said. "Tell the People of the River not to hunt the deer any more. They have made the Magic People angry once, by killing a swan. They mustn't make them angry again, by killing the deer."

## 2.2.1 Cohesion

*TEXT*

### The Magic People

"That's Riff-Raff![2a]" he said. "That's Dirk's[5a] donkey[2b]! Dirk[2b] had that donkey[2c] up in the mountains, when we took him[5b] to the Magic People."[4a]

As soon as he[6a] heard about the donkey[2d], Kell[6b][10A] sent for Seth and Crow.[3a]

"Did you[3b] leave that donkey[2e] with the Magic People,[4b] when you[3c] left Dirk[5b] with them[4b]?" he[6c] asked.

Seth and Crow[3d] had gone back to the People of the River[7a], and told them[7b] that they[3d] had handed Dirk[5c] over to the Magic People[4c]. No-one[7c] knew what had really happened. The clouds had blown down from the mountains[1a], and it had rained[1b] the day Seth and Crow[3e] got back. So Seth and Crow[3f] stayed by the river[1c]. They[3g] didn't go south, and no-one[7d] ever questioned what they[3h] had said. Even Roth didn't get the truth.

"Yes" said Crow. "We left Dirk[5d] and his[5e] donkey in the mountains with the Magic People"[4d].

"That donkey[2f] followed the boy[4e] everywhere", said Seth[3I]. "When we[3j] made him[5g] a prisoner, the donkey[2g] came along too. It was nothing to do with us."[3k]

"Then the Magic People[4e] must have sent the donkey[3j] down to the deer," said Kell[10a]. "I must go and see Roth,[8a] and ask him[8b] what this[9a] means."

He[10b] went off at once to Roth's[8c] cave, and told him[8d] about Riff-Raff.[3I]

Roth[8e] listened to what Kell[10c] had to say.

"If the Magic People[4f] sent the donkey[3m] down to the deer[11a], the deer[11b] must be friends of the Magic People[4g]," he[8f] said. "Tell the People of the River[7d] not to hunt[13a] deer[11c] any more. They have made the Magic People[14h] angry[14a] once, by killing a swan. They[12d] mustn't make them[14b] angry again, by killing the deer[15a]."

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The People of the River[7e] gave up their[12d] hunting[13b], when they[7f] heard what Roth[10e] had said. They[7g] had their sheep and cattle, and the gold which the river washed down from the mountains. They[127] didn't need to hunt[13c] for food, and they[7i] didn't want to make the Magic People[4i] angry[14c]. They[7j] were too frightened of the Magic People[4l] to do that[13d].

So every spring, when the swans flew up from the South, little Riff-Raff[3m] came north with the deer[11d], and trotted up the path beside the river, as the swans flew overhead, to meet Dirk[5h] again at the Hidden Lakes. And Dirk[5i] lived happily with Diorn, as Diorn's adopted[5j] son. He[5k] had become one of the Magic People[4k].

## ANALYSIS

1[a][b][c] lexical cohesion "clouds" "ran" river"
2[a][b] anaphoric reference "Riff Raff" "donkey"
2[c][d][e][f][g][j] lexical reiteration
2[h][i] anaphoric reference
3[a][b] anaphoric reference "Crow" "you"
3[c][d] anaphoric reference "you" "Seth and Crow"
3[e][f] lexical reiteration "Seth and Crow"
3[g][h][i] anaphoric reference "they" "it"
3[j][k] anaphoric reference "donkey" Riff Raff"
3[l][m] anaphoric reference "Riff Raff" "donkey"
4[a][b][c][d][e][f][g][h][i][j][k] lexical reiteration "the Magic People"
5[a][b] anaphoric reference "Dirk's donkey" "Dirk"
5[b][c] lexical reiteration "Dirk"
5[d][e] anaphoric reference "Dirk" "his"
5[f][g] anaphoric reference "boy" "him"
5[h][i] lexical reiteration "Dirk"
5[j][k] anaphoric reference "adopted son" "he"
6[a][b] cataphoric reference "he" "Kell"
6[a][c] anaphoric reference
6[b][d] lexical reiteration
6[d][e] lexical reiteration
7[a][b] anaphoric reference "people" "them"
7[b][c] lexical reiteration "them" "no-one"
7[a][d] lexical reiteration "people"
7[d][e]lexical reiteration "people"
7[e][f] anaphoric reference "River People" "them"
7[f]g] anaphoric reference "River People" "them"
7[h][i][j] lexical reiteration "they"
8[a]b] anaphoric reference "Roth" "him"
8[b][c] lexical reiteration "Roth"

8[c][d] anaphoric reference
8[e][f]lexical reiteration "Roth"
9[a][b] anaphoric reference "Mountain People" "this"
10[a][b] lexical reiteration "Kell"
10[c][d][f] lexical reiteration "Kell"
11[a][b] lexical reiteration "deer"
11[d][e] lexical reiteration "deer"
12[a][b] anaphoric reference "People of the River" "they"
12[c][d] anaphoric reference
13[a][b] anaphoric reference/lexical reiteration "hunt" "to do that" (ellipsis)
13[a][b] lexical reiteration "hunt"
Collocation:    "clouds" "blow"
                "clouds" "rain"
                "river" "down" "mountains."

Conjunctions: "when", "as soon as", "so", "even", "if" "and" (initial) "then" "as".

Given that this story is well-formed and is written for young readers, it is not constructed in an impoverished way. Because the context has been established (this is the end of the 40-page story), not a great deal of lexical cohesion is necessary by the end of the story as analysed. There is a fair amount of lexical reiteration, which happens partly when there are names or the same people interacting. The most difficult device – the anaphoric reference – is there in abundance, making cognitive demands on the young reader, though, these refrences are highly predictive. And there is also one example of cataphoric reference, which is not difficult to resolve.

Summary:

| Lexical Reiteration | Anaphoric Reference | Lexical cohesion | Cataphoric Reference | Collocation |
|---|---|---|---|---|
| 28 | 28 | 2 | 1 | 3 |

## 2.2.2 Syntax analysis and a tree diagram

*So, every spring, when the swans flew up from the south, little Riff-Raff came north with the deer, and trotted up the path beside the river to meet Dirk in the hidden lakes.*

The tree diagram for the above, the last sentence in the story, is seen on the following two pages. This was the longest sentence in the story. Despite its length, there is really not much new information, but it is the resolution of the story. It is in fact the longest sentence in the entire corpus analysed to date.

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Given the nature of the vocabulary (see next section) probably the strongest demand on the reader is to keep the plot in mind over the course of 40 pages. However, since this is a text that is suggested as being for good readers, they may already be reading "real" (regular/ ordinary) books, and they would be able to keep the grammar of the story in mind.

Š

COMP PP

So Q N

*every spring*

NP

NOM

Art N

*the swans*

VP

Vgrp Phrasal

Past V partic

*flew up*

PP

P NOM

*from* NP

Art N

*the south*

COMP

Ø [then]

Š S2

VP

NP N trans

ART N V ADV

*little RR came North*

*the deer*

PP

P NOM

*with*

S3

SEE NEXT PAGE

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S3

NP — Ø

VP

Vgroup
[-trans] — trotted

PP

P — up

NOM

ART — the

N — path

PP

P — beside

NOM

ART — the

N — river

S4

NP — Ø

VP
Vrb grp
[-trans]

partic — to

V — meet

NP

N — Dirk

PP

P — at

NOM

Art — the

Adj — Hidden

N — Lakes
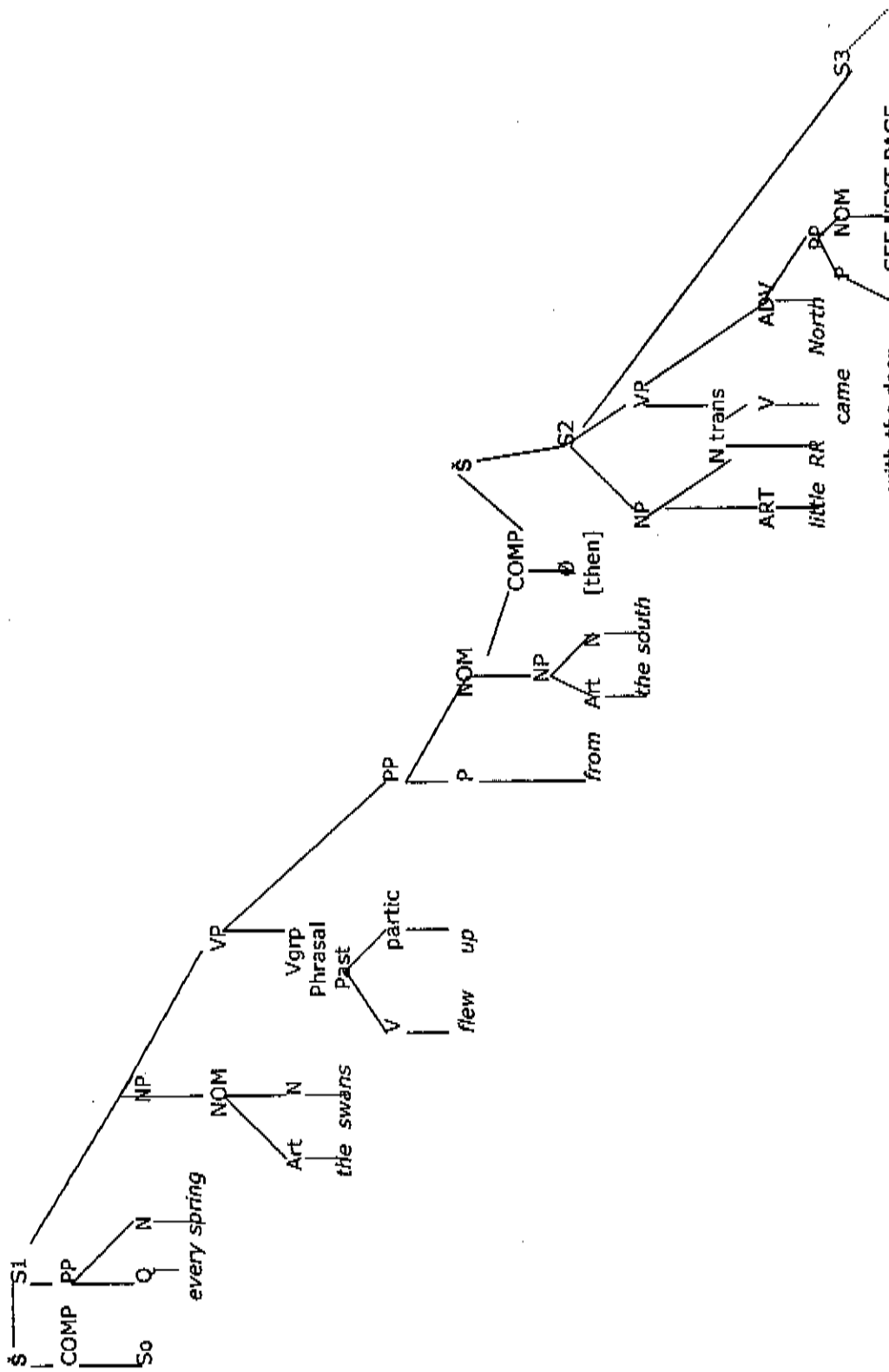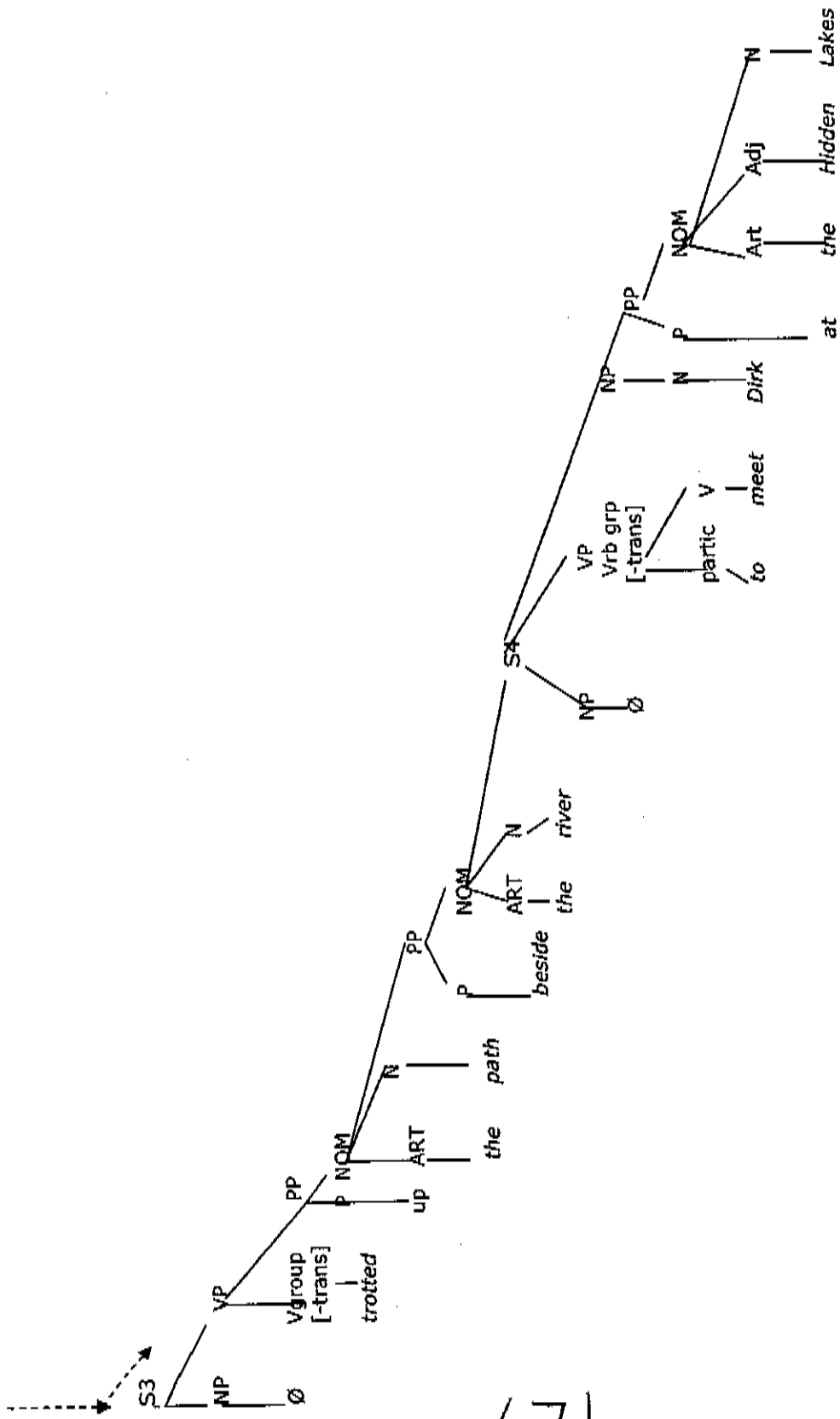
67b

67b

## 2.2.2.1 Summary of syntactic structures

| Language Texts | Text 1 Narrative (Riff Raff) | Text 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) |
|---|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ | ✓ | ✓ | ✓ |
| 2. Commands, statements & denials | ✓ | | | |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | | | ✓ |
| 4. *how many* | ✓ | | | |
| 5. *what* | | | | |
| 6 Wh- in subordinate clause | ✓ | ✓ | | ✓ |
| 7. *Yes/No* questions, including auxiliary and modal fronting | ✓ | | | |
| 8. Tenses: present, past, present continuous, present perfect | ✓ | ✓ | ✓ | ✓ |
| 9. Tense: past perfect | | | | |
| 10. Relative clause with the relative pronoun *who* | | ✓ | | |
| 11. *that* as relative clause marker | | | | ✓ |
| 12. Co-ordinating sentences with *and* and *or* | ✓ | ✓ | ✓ | ✓ |
| 13. Co-ordinating phrases with *and* (not *but* or *or*) | ✓ | ✓ | ✓ | ✓ |
| 14. *or* | ✓ | | | |
| 15. Passive construction | ✓ | | | ✓ |
| 16. Modal *can* | ✓ | ✓ | | ✓ |
| 17. Modal *could* | | ✓ | ✓ | |
| 18. Modal *must* | | | ✓ | |
| 19. Modal *may* | | ✓ | ✓ | |
| 20. Modal *must have* (concl.) | ✓ | ✓ | ✓ | |
| 21. Demonstrative | ✓ | ✓ | | ✓ |
| 22. Non-finite verb group complement (1) e.g. *The best thing to do would be (for you) to tell everybody* | ✓ | ✓ | ✓ | ✓ |

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| Language Texts | Text 1 Narrative (Riff Raff) | Text 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) |
|---|---|---|---|---|
| 23. Finite verb group complement without *to* (2) *All I did was hit him on the head* | ✓ | | ✓ | ✓ |
| 24. Non-finite post modifier of NP (PP) | ✓ | | ✓ | |
| 25 Phrasal NP postmodifier | ✓ | ✓ | | ✓ |
| 26 Phrasal NP premodifier | | ✓ | | ✓ |
| 27. Finite adverbial with *before, then, because, soon, now,* and *because, so as* and *until* | | | | |
| 28 *when/how* | ✓ | | ✓ | |
| 29. Comparative clauses *as big as/ as fast as* | | ✓ | | |
| 30. Subordinating conjunctions *before, then* | | | ✓ | |
| 31. *because, where, when, if* | | | | ✓ |
| 32. *when, what, who, about what* | ✓ | ✓ | | |
| 33. *then* | | | ✓ | |
| 34 *at* | | ✓ | | |
| 35. Wh- in subordinate clauses | ✓ | ✓ | ✓ | ✓ |
| 36. Discourse markers (COMP) *now, then* | ✓ | ✓ | ✓ | |
| 37. Past perfect tense | | | ✓ | |
| 38 *that* as clause marker | ✓ | ✓ | ✓ | ✓ |
| 39. Ellipsis/substitution | ✓ | ✓ | ✓ | ✓ |
| 40. Lists | | | | |
| 41. Multiple embedding | ✓ | ✓ | ✓ | ✓ |
| 42. Adverbial phrases (PP): Purpose | ✓ | | ✓ | ✓ |
| 43. Time | ✓ | ✓ | ✓ | ✓ |
| 44. Place | ✓ | ✓ | ✓ | ✓ |
| 45. Manner | ✓ | ✓ | | |
| 46. Present participle | | ✓ | | |
| 47. Past participle | ✓ | ✓ | | |
| 48. Asyndetic co-ordination | | ✓ | | ✓ |
| 49. Possessive | ✓ | ✓ | ✓ | |

| Language Texts | Text 1 Narrative (Riff Raff) | Text 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) |
|---|---|---|---|---|
| 50. Existential *there* | ✓ | ✓ | ✓ | ✓ |
| 51. *And* as sentence initial | | ✓ | | |
| 52. NP in apposition | | ✓ | | ✓ |
| 53. Transposed clause/phrase | | ✓ | | ✓ |
| 54. Conjunctions | when, as soon as, even, then, if too, as (Adverbial) | now, before, at once, and, then, suddenly, and there | about how, first, then, so that, so | once seen, but, and, when, where, at these times, since, also, as |
| TOTAL | 30 | 32 | 20 | 25 |

## 2.2.3 Vocabulary

The Magic People has 400 words in the selection, and 152 lexemes. We may deduce that the average length of the sentences is 13,3 words. However, one should bear in mind that the last impoverished grammatical exercise in Scheme 3 (to come) has a sentence length of 6,7 words. The question here arises whether L2 children can maintain the average pace of becoming literate in their classes. The words that might challenge children are: "adopted", "north", "south", "overhead", "questioned", "prisoner", "really". Otherwise the vocabulary appears to consist of high-frequency words.

| Vocabulary | at | clouds | ever |
|---|---|---|---|
| a | back | Crow | every |
| about | be | day | everywhere |
| adopted | become | deer | flew |
| again | beside | did | followed |
| along | blown | Diorn | food |
| and | boy | Dirk | for |
| angry | by | do | friends |
| anymore | came | donkey | frightened |
| as | cattle | down | from |
| ask | cave | even | gave |

| | | | |
|---|---|---|---|
| get | left | rained | this |
| go | listened | really | to |
| gold | little | Riff-Raff | told |
| gone | lived | river | too |
| got | made | Roth | took |
| had | magic | said | trotted |
| handed | make | say | truth |
| happened | means | see | up |
| happily | meet | sent | us |
| have | mountains | Seth | want |
| he | must | sheep | was |
| hope | need | so | washed |
| heard | no-one | son | we |
| hidden | north | soon | went |
| him | not | south | were |
| his | nothing | spring | what |
| hunt | of | stayed | when |
| I | off | swan | which |
| if | once | tell | with |
| in | one | that | yes |
| it | over | that's | you |
| Kell | overhead | the | |
| killing | path | their | ***152 lexemes*** |
| knew | people | them | |
| Lakes | prisoner | then | |
| leave | questioned | they | |

## 2.2.4 Conclusion

The first text can be judged on its own merits – it has integrity and real interest – but this may be better seen after all four texts have been presented and described.   •

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## 2.3 Text Two: *Hound Gelert*

This is the second L1 text. It is from the Orange Series of *New Way* that is explicitly designed for Grade 3 level. (It should be born in mind that British children start school much younger than in South Africa, and with the advent of Grade R, this level may well be easier than South African Grade 3. This is a matter for empirical investigation.)

The story of *Gelert Hound* is a tragedy (if one can introduce this idea at such an early age).

It begins with the setting – this is a Welsh story written about 800 years ago. The countryside was quite wild still, and the Prince and Princess both loved hunting. The Prince had a hound called Gelert who was brave and strong, and who never left his side. Both the Prince and Princess liked hunting. One year the Prince and Princess were reluctant to leave the castle to hunt because they had a little baby. Although the baby had a nurse, the Prince decided to leave Gelert as well, to guard the baby. Gelert settled down, awake and alert next to the cradle.

The hunt lasted a long time, as they were pursuing a particularly fierce wild boar. It finally eluded them; it was late so the party hurried back to the castle. The Prince and Princess rushed to see how their baby was. They noticed that there were no people around. This is where the analysis starts.

The nursery was covered in blood and there was blood on the walls as well. The Princess thought that Gelert had gone mad and attacked the baby, and without further thought, and on the spot, killed Gelert. However, the baby was still in the upturned cradle and hidden in the chaos was a dead wolf. Gelert had killed the wolf, while everybody had fled. The Prince was heart-broken, and gave his hound a special burial with a tombstone. A village grew up near this grave and the town takes it name from Gelert. It's called 'Beddgelert', which means Gelert's grave. Two illustrated pages are to be found overleaf.

At once Llewelyn thought he knew what must have happened. He knew that dogs sometimes went mad and attacked their owners. Now he thought that Gelert had gone mad too and had killed the baby.

Before anyone could stop him, the Prince pulled out his sword and killed Gelert. Then Llewelyn and the Princess wept, because they thought their baby was dead.

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Suddenly they heard a tiny cry. It came from the up-turned cradle. They rushed to it and lifted it up.

And there, quite safe, lay their baby son. He smiled and laughed and waved his tiny fists in the air at them. And near the baby, half-hidden by a pile of rugs, was the body of a great grey wolf.

With a shout, Llewelyn picked up the baby and hugged him. It was the Princess who realised the truth about what had happened.

"Oh, Llewelyn!" she cried. "Gelert was faithful after all. Look, he has killed the wolf and saved our son. Everyone else has run away!"

Then Llewelyn knew that Gelert had been brave and loyal to the end. He had fought the wolf and killed it to protect the baby. The blood was the wolf's blood, not the baby's. And he, Llewelyn, had killed his most faithful companion.

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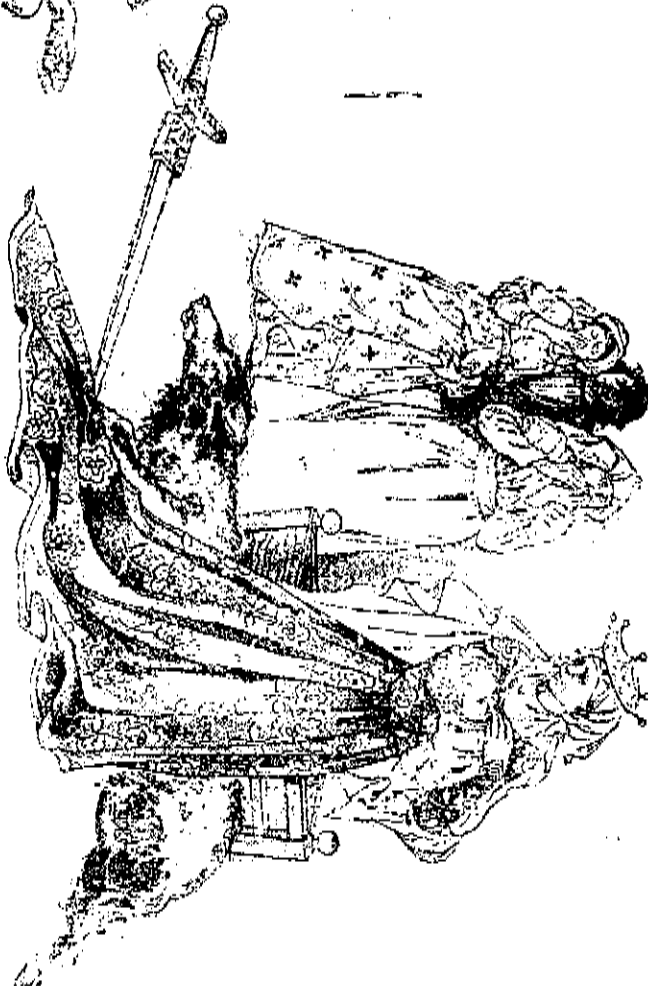
Then Llewelyn wept for Gelert too. He took the body of his faithful friend and buried it nearby, beside the river. He told everyone that he had been wrong about Gelert and had killed him by mistake. He told everyone how brave Gelert was, and how he had saved the baby's life.

The people told Llewelyn that they had been so frightened when the big grey wolf came that they had all run away. Only Gelert had stayed. He would not leave the baby.

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## 2.3.1 Coherence

This is a well-written, lavishly illustrated story. As is common in narratives, the illustrations are not labelled, but they very aptly illustrate the text. Furthermore the text is coherent insofar as there are appropriate connectives in the story; the range through the story is:

Setting the historical scene: "Many, many years ago", the introduction of the hound, "so", "now", "and" "so", "but", "however", "for a time", "only", "suddenly", "as they did so" "where were?" "why was", "at once", "now", "before", "suddenly", "and there", "then", "only". The story is well-constructed with references to the baby, hound, hunting, the sound of wolves, the hasty return, reference to the brave hound, the devastated and abandoned room, the pleasure of the dog to see his master, but being rapidly dispatched, and the relief and grief which followed.

## 2.3.2 Cohesion

*TEXT*

The prince[1a] and the princess[1b] went straight to the room[5a] where they[1c] had left the baby[9a]. They[1d] could not believe what they[1e] saw. Stools and tables[15a] lay on their sides. There[2a] were broken pots[15b] all over the floor and even the baby's[9a] cradle was upside down. There[2b] was no sign of anyone. Gelert[3a], who was lying in a corner,[3Ø] jumped up and ran[15c] to his[3b] master[1c], wagging his[3c][15d] tail. Llewellyn[4a] was horrified. He[4b] saw that the room[5b] was covered in blood[6a] and there[2c] was blood[6b] on Gelert[8a] too. At once Llewellyn[4b] thought he[4c] knew what happened. He[4d] knew that dogs[7a] sometimes went mad and attacked their[7b] owners. Now he[4c] thought that Gelert[8b] had gone made too, and attacked the baby[9b]. Before anyone could stop him[4d], the Prince[1d] pulled out his[1e] sword and killed Gelert[8c]. Then Llewellyn[1f] and the princess[1g] wept[15e] because they[1h] thought their[1h] baby[9c] was dead[15f]. Suddenly they[1i] heard a tiny cry[10a]. It[10b] came from the upturned cradle[11a]. They[1j] rushed to it[11b] and lifted it[11c] up. And there[2d], quite safe, lay their[1k] baby son[9d]. He[9e] smiled and laughed and waved his[9f] tiny fists in the air at them[11]. And near the baby[9f], half-hidden beneath a pile of rugs was the body of a great grey wolf[12a]. With a shout, Llewellyn

picked up[15g] the baby[9g] and hugged[15h] him[9h]. It was the princess[1m] who realized what had happened. "Oh Llewellyn!" she cried. "Gelert[8d] was faithful after all. Look, he[8e] has killed the wolf[12b] and saved our son[9i]. Everyone else has run away". Then Llewellyn knew that Gelert[8f] had been brave to the end. The blood[13a] was the wolf's,[13k] not the baby's[13c].

And he[14a], Llewellyn, had killed his[8g] most faithful companion[8h]. Then Llewellyn[14c] wept for Gelert[14i] too.  He[14e] took the body[15k] of his faithful friend[14f] and buried it[15l][14g] nearby, beside the river.


*ANALYSIS*

1[a][b] lexical cohesion "prince" "princess" (hereafter treated as one)
1[b][c] anaphoric reference "prince" "they"
1[c][d] anaphoric reference
1[d][e] anaphoric reference
1[f][g] lexical cohesion "Llewellyn" "Princess"
1[f][g][h] anaphoric reference
1[i][j] anaphoric reference "they"
1[j][k] lexical reiteration "They"
1[k][l] lexical reiteration "their" "them"
1[l][m] anaphoric reference "them" "Princess"
2[a][b][c][d] existential ref "There"
3[a][b] anaphoric reference with ellipsis "Gelert" "Ø"
3[c][d] anaphoric reference "his" "him"
4[a][b] anaphoric reference "Llewellyn" "he"
4[b][c] anaphoric reference "Llewellyn" "he"
4[d][e] lexical reiteration "his" "him"
4[e][f] lexical reiteration "his"
4[d][e] lexical reiteration "his" "him"
4[e][f] lexical reiteration "his"
5[a][b] lexical reiteration "room"
6[a][b] lexical reiteration "blood"
7[a][b] anaphoric reference "dogs" "their"
8[a][b][c][d] lexical reiteration "Gelert"
8[d][e] anaphoric reference "Gelert" "he"
8[e][f] cataphoric reference  "he" "Gelert"
8[g][h] lexical cohesion "hound" "dog"
8[i][j] anaphoric reference "faithful companion" "it"
9[a][b][c] lexical cohesion "baby" "baby son" "he"
9[c][d] anaphoric reference "baby" "he"
9[d][e] anaphoric reference "baby son" "he"
9[e][f] anaphoric reference "baby son" "his"
9[g][h] anaphoric reference "baby' "him"

9[h][i] anaphoric reference "him" "son"
10[a][b] anaphoric reference "cry" "it"
11[a][b][i] anaphoric reference "upturned cradle" "it" "it"
12[a][b] lexical reiteration "wolf"
13[a][b][c] lexical cohesion "blood" wolf's blood" "baby's blood" ·
14[a][b] cataphoric reference "he" "Llewellyn"
14[b][c] lexical reiteration "Llewellyn"
14[c][d]lexical cohesion "Llewellyn" "Gelert"
14[e][f] anaphoric reference "he" "his"
14[e][f][g] lexical chain "he-him-body-faithful friend-buried it. (anaphora and cohesion)
15[a][b] collocation "stools and tables", "pots"
15[c][d] collocation "jumped up and ran" "wagging his tail"
15[e][f] collocation "wept" "dead"
15[g][h] collocation "picked up" "hugged"
15[i][j] collocation "brave" "faithful"
15[k][l] collocation "body" "bury"
16 Conjunctions: "now" "before" "and" "and there" "at once" "then" "suddenly" "about what" "only"
"so" "but" "however" "for a time" "where" "were".

This is a highly cohesive text. As we shall see in Text Three (original and revised versions) anaphoric
reference is a powerful cohesive device. There are 23 instances of it here. Lexical reiteration has 12
instances, and this is principally because of having to refer to the four characters. Lexical cohesion has
five examples, probably because the scene was so constrained. There are two instances of cataphoric
reference. Then I looked for collocation and here there were six instances, showing characteristic
actions. Finally, 15 conjunctions contributed to the cohesion.

Here is the summary, where the tables will be compared at the end of the four L1 texts.

| Anaphoric Reference | Lexical reiteration | Collocation | Lexical cohesion | Collocation |
|---|---|---|---|---|
| 23 | 12 | 6 | 5 | 6 |

## 2.3.3 Syntax

There were 302 words in this excerpt, making the average sentence length 10,1 words. These are the
shortest sentences in the four texts, but there is no impression of stiltedness. Part of the use of short
sentences is to generate dramatic effect, and this was a shocking story. The example of a tree diagram
sentence is to be found below, and then the syntactic summary follows.

In the excerpt there were 31 structures (where tenses are counted as one category), which is the same number (but not the same types) of categories as the first story, *The Magic People*. One cannot draw any specific conclusions here within the L1 texts. However, the next excerpt, a non-fiction story has only 20 structures, and the analysis revealed that it was impoverished text – very few structures and little cohesion. The tree that was selected here for *Hound Gelert* was specially chosen to show the unusual way the *possessive construction* is represented in this paradigm.

### 2.3.3.1 Tree diagram



*Hound Gelert: The blood was the wolf's blood, not the baby's.*

## 2.3.3.2 Summary of syntactic structures

| Language Texts | Text 1 Narrative (Riff Raff) | Text 2 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) |
|---|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ | ✓ | ✓ | ✓ |
| 2. Commands, statements and denials | ✓ | | | |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | | | ✓ |
| 4. *how many* | | | | |
| 5. *what* | | | | |
| 6. Wh- in subordinate clause | ✓ | ✓ | | |
| 7. *Yes/No* questions, including auxiliary and modal fronting | ✓ | | | |
| 8. Tenses: present, past, present continuous, present perfect | ✓ | ✓ | ✓ | ✓ |
| 9. Tense: past perfect | | | | |
| 10. Relative clause with the relative pronoun *who* | | ✓ | | |
| 11. *that* as relative clause marker | | | | ✓ |
| 12. Co-ordinating sentences with *and* and *or* | ✓ | ✓ | ✓ | ✓ |
| 13. Co-ordinating phrases with *and* (not *but* or *or*) | ✓ | ✓ | ✓ | ✓ |
| 14. *or* | ✓ | | | |
| 15. Passive construction | ✓ | | | ✓ |
| 16. Modal *can* | ✓ | ✓ | | ✓ |
| 17. Modal *could* | | ✓ | ✓ | |
| 18. Modal *must* | | | ✓ | |
| 19. Modal *may* | | ✓ | ✓ | |
| 10d. Modal *must have* (concl.) | ✓ | ✓ | ✓ | |
| 20. Demonstrative | | ✓ | | ✓ |
| 21. Non-finite verb group complement (I) e.g. The best thing to do would be (for you) <u>to tell him</u>. | ✓ | | ✓ | ✓ |
| 22. Finite verb group complement (II) All I did was <u>hit him</u> on the head. | ✓ | | ✓ | ✓ |
| 23. Non-finite post modifier of NP (PP) | ✓ | | ✓ | |
| 24. Phrasal NP postmodifier | ✓ | ✓ | | ✓ |
| 25. Phrasal NP premodifier | | ✓ | | ✓ |
| 26. Finite adverbial with *before, then, because, soon, now*, and *because, so as* and *until* | | ✓ | | |
| 27. *when/how* | ✓ | | ✓ | |
| 28 Comparative clauses *as big as/as fast as* | | ✓ | | |
| 29. Subordinating conjunctions *before, then* | | | ✓ | |

| Language Texts | Text 1 Narrative (Riff Raff) | Text 2 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) |
|---|---|---|---|---|
| 30. *because, where, when, if* | | ✓ | | ✓ |
| 31. *when, what, who, about what* | ✓ | ✓ | | |
| 32. *then* | | ✓ | ✓ | |
| 35. *at* | | ✓ | | |
| 36. Wh- in subordinate clauses | ✓ | ✓ | ✓ | ✓ |
| 37. Discourse markers (COMP) *now, then* | ✓ | ✓ | ✓ | |
| 38. Past perfect tense | | ✓ | ✓ | |
| 39. *that* as clause marker | ✓ | ✓ | ✓ | ✓ |
| 40. Ellipsis/substitution | ✓ | ✓ | ✓ | ✓ |
| 41. Lists | | ✓ | | |
| 42. Multiple embedding | ✓ | ✓ | ✓ | ✓ |
| 43. Adverbial phrases (PP): Purpose | ✓ | ✓ | ✓ | ✓ |
| 44: Time | ✓ | ✓ | ✓ | ✓ |
| 45: Place | ✓ | ✓ | ✓ | ✓ |
| 46. Manner | ✓ | ✓ | | |
| 47. Present participle | | ✓ | | |
| 48. Past participle | ✓ | ✓ | | |
| 48. Asyndetic co-ordination | | ✓ | | ✓ |
| 49. Possessive | ✓ | ✓ | ✓ | |
| 50. Existential *there* | ✓ | ✓ | ✓ | ✓ |
| 51. *And* as sentence initial | | ✓ | | |
| 52. NP in apposition | | ✓ | | ✓ |
| 53. Transposed clause/phrase | | ✓ | | ✓ |
| 54. Conjunctions | when, as soon as, even, then, if too, as (Adverbial) | now, before, at once, and, then, suddenly, and there, only, so, but, however, for a time, only, where, were | about how, first, then, so that, so | once seen, but, and, when, where, at these times, since, also, as |
| **TOTAL STRUCTURES** | 30 | 32 | 20 | 25 |

## 2.3.4 Vocabulary

There are 305 words in this piece of text, so the average length of the sentences is 10 words.

| | | | | |
|---|---|---|---|---|
| a | cry | hugged | own | sword |
| after | dead | in | picked | table |
| air | dogs | it | pile | that |
| all | down | jumped | pots | the |
| and | else | killed | prince | their |
| anyone | end | knew | princess | them |
| at | even | laughed | pulled | then |
| attacked | everyone | lay | quite | there |
| away | faithful | left | ran | they |
| baby's | fist | lifted | realised | thought |
| because | floor | Llewellyn | river | tiny |
| been | for | look | room | to |
| before | friend | lying | rugs | too |
| believe | from | mad | run | took |
| beneath | Gelert | master | rushed | up |
| beside | gone | most | safe | upside |
| blood | great | near | saw | upturned |
| body | grey | nearby | she | wagging |
| brave | had | no | shout | was |
| broken | half-hidden | not | sides | waved |
| buried | happened | now | sign | went |
| came | has | of | smiled | wept |
| companion | he | oh | sometimes | were |
| corner | heard | on | son | what |
| could | him | once | stools | where |
| covered | his | our | stop | who |
| cradle | tail | out | straight | with |
| cried | horrified | over | suddenly | wolf |

**140 lexemes**

### 2.3.4.1 Comments on vocabulary

Much of this vocabulary seems unproblematic, but the temptation to view it with an L2 eye is very strong. Perhaps the following words could present a challenge:
"attacked", "baby's" (possessive), "beside", "buried", "companion", "faithful", "half-hidden", "happened", "horrified", "realised", "rugs", "upturned", "wept".

If a teacher expects to let the children read such stories independently, then there should be only 5% of vocabulary, which is problematic. In private schools with good literacy programmes, some of the children are two years ahead of their expected reading level. The range of reading abilities by Grade 3 will be very wide, because there will be children – generally the L2 children, teachers say – who are behind their grade level. One way to deal with such a disparity is to let children read on their own, sometimes to helpful mothers who come in to school and listen to such reading.

At the Orange level, some of the books are quite light-hearted and fun, but there is another tragic story called *Swan Lake* where a prince doesn't recognise his beloved (who is usually a swan), and she dies broken-hearted. He lies with her, and the rising water covers them forever, as he wanted to be with her for always.

## 2.3.5 Conclusion

There are eight levels in the *New Way* Series. This covers Grade R through to Grade 3. Although teachers may think highly of it, it is not readily available because of the cost. The costs at present are:

| | |
|---|---|
| Grade R: | R1 090 |
| Grade 1: | R2 490 |
| Grade 2: | R2 146 |
| Grade 3: | R1 786 |
| TOTAL | R7 512 |

Grade 1:     50 titles
Grade 2:     40 titles
Grade 3:     27 titles
TOTAL        <u>117 titles</u>

(This constitutes a major inequity compared with L2 courses, which as a recent innovation, have one reader per year.)

In addition, schools may have a range of schemes, as well as a library of other books. Let us then surmise that a moderately well-achieving child might read 150 books during the Foundation Phase. Although children are still going to be challenged by the language structures in Learning Area books from Grade 4 on, they would nevertheless have had a great deal of practice at reading, albeit bottom-up reading skills.

# 2.4 Text Three: Kontiki

A non-fiction story is the text analysed in this section.

The Kontiki expedition is a famous story of a trip from South America to the Polynesian Islands.

This was seen as a madcap adventure that would surely fail. Instead of a boat, a primitive raft made from tree trunks held together with vines. Surely such a precarious boat would founder at the first rough wave! However, the crew of the ship can be considered to have succeeded in travelling the appointed route, until their raft was broken up very close to their destination. The experiment was therefore judged a success.

This book was chosen because it is a clear example of "impoverished" text. Sentence after sentence is written with no connectives (conjunctions). Therefore I have done something unusual: I have analysed the original text, but I have also produced a text which I believe to be much more "considerate" and readable.

This book is beautifully and amply illustrated but with no labels for the figures. We do have a Peruvian asking the reader questions. The picture of the analysed text is shown below.

Although it may seem pre-emptive to show the rewritten text, the first thing that is presented is the original and rewritten text, side by side in columns (in a table found two pages further on). It should show the reader what has been attempted in writing more cohesive text, particularly in making it more cohesive by the use of conjunctions and embedded sentences.

## 2.4.1 Cohesion

Because of the presentation of the two texts here and the summary, the whole cohesion analysis is the two texts are not presented here.

## At Sea

The days on the raft went by fast.
Each day, the men made sure
the raft was still strong.
One day, they saw a big shark in the sea.
It was near the raft.
The men killed the shark for food.
It took a long time
to get the shark up on the raft.
The men ate the shark.

## Land!

One day when Thor Heyerdahl
was looking out to sea,
he saw some birds.
He said the birds would be near land.
So the men knew they were near land.
Soon, they saw the land,
but there were big waves
and they could not get the raft to the shore.
The men were very sad because
they could not get to the beach.

Can you make a list
of the things the men did
each day?
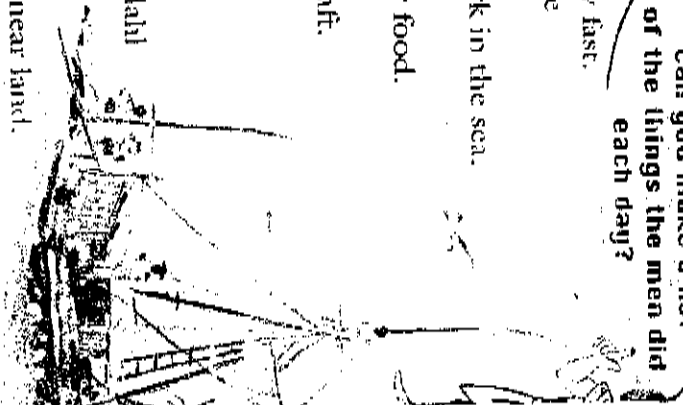
| REVISED | ORIGINAL |
|---|---|
| **Thor Heyerdahl's dream** | **Thor Heyerdahl's dream** |
| Thor Heyerdahl liked to find out about things. One of the things he wanted to find out about was how the Polynesian people got to the Pacific Islands. He thought that perhaps the Polynesian people must have come from Peru, in South America, on rafts. Look at the map to see how very far Polynesia and Peru are from each other. | Thor Heyerdahl liked to find out about things. He wanted to find out about how the Polynesian people got to the Pacific Islands. He thought that the Polynesian people must have come from Peru, in South America, on rafts. |
| Thor Heyerdahl wanted to show people he was right. He claimed he could sail to the islands the way the Polynesians did a long, long time ago. Many people said that it could not be done, and perhaps they were afraid he would die in the attempt. However, there were a small number of men who said that they would help him. | Thor Heyerdahl wanted to show people he was right. He said he would sail to the islands the way the Polynesian did a long, long time ago.<br><br>Many people said it could not be done, but some men said that they would help him. |
| **Making the Raft** | **Making the Raft** |
| First the men had to build a raft like the original ones might have been. For this, the men used big tree trunks for the raft. They used nine trunks and tied them together with vines.<br><br>Then, to make a hut, the men used little | First the men had to build a raft. The men use big tree trunks for the raft.<br>They used nine trunks.<br>They tied them together with vines.<br>The men used little tree trunks.<br>They used little tree trunks to make a hut.<br>They put the hut on the raft. |

| | |
|---|---|
| tree trunks. They then put the hut on the raft. | Then they made two masts and a sail. They said it would make the raft move faster in the water. |
| Finally they made two masts and a sail. The sail would make the raft move faster through the water. | |
| **Setting sail** | **Setting sail** |
| Thor Heyerdahl and his crew called the raft the *Kontiki*. They gathered together lots of things they would need in the raft. The first things were food and water. Also important were the compass and a radio so that they could tell people where they were. They also took journals so they could keep records and write all about their trip. | Thor Heyerdahl and his crew called the raft the *Kontiki*. They got together lots of things they would need in the raft. They took food and water. They took a compass and a radio so that they could tell people where they were. So they also took books so they could write all about their trip. Soon, it was time to go. |
| Soon, it was time to go and many people came to see them off. Many of the people did not think they would see the adventurers again. | Many people came to say goodbye. Many people did not think they would see them again. |
| **At Sea** | **At Sea** |
| The day on the raft went by fast. Each day they made sure that the raft was still strong. It needed to be strong for the very long journey. | The days on the raft went by fast. Each day the men made sure that the raft was still strong. |
| One day they saw a big shark near the raft. | One day they saw a big shark in the sea. It was near the raft. |

| | |
|---|---|
| The men wanted to kill it for food. It took a long time to get the shark up on the raft, but finally they did so, and enjoyed eating some meat. | The men killed the shark for food. It took a long time to get the shark up on the raft. The men ate the shark. |

| REVISED TEXT | | ORIGINAL TEXT | |
|---|---|---|---|
| 13 paragraphs | | 30 paragraphs | |
| Words per sentence: 12,4 | | Words per sentence: 9,8 | |
| Lexical repetition: | 9 | Lexical repetition: | 38 |
| Anaphoric reference: 15 | | Anaphoric reference: | 4 |
| Lexical cohesion: | 8 | Lexical cohesion: | 2 |
| Ellipsis: | 2 | Ellipsis: | 0 |

"Paragraphs" on the MsWord program denotes sentences. This means that 30 sentences were reduced to 13. The words per sentence went from 9,8 to 12,4. The most important cohesive tie for a story is anaphoric reference and this changed from four to 15 instances.

## 2.4.2 Syntax

The **tree diagram** for a sentence from the text is given on the next page.

: *Soon, they saw the land, but there were big waves and they could not get the raft to the shore.*

Š
├── COMP — *soon*
└── S1
    ├── NP
    │   └── NOM
    │       └── pro — *they*
    └── VP
        ├── Vgrp
        │   ├── past
        │   ├── trans
        │   └── saw
        └── NP
            └── NOM
                ├── Art — *the*
                └── N — *land*

Š
├── COMP — *but*
└── S2
    ├── NP
    │   └── NOM
    │       └── exist — *there*
    └── VP
        ├── Vgrp — *were*
        │   └── operator
        └── NP

Š
├── COMP — *and*
└── S3
    ├── NP
    │   └── NOM
    │       ├── Adj — *big*
    │       └── N — *waves*
    ├── NP
    │   └── NOM
    │       └── pro — *they*
    └── VP
        ├── Vgrp
        │   ├── modal
        │   ├── neg
        │   └── V — *could not get*
        └── NP
            └── NOM
                ├── Art — *the*
                ├── N — *raft*
                └── PP
                    ├── P — *to*
                    └── NOM
                        ├── Art — *the*
                        └── N — *shore*

89
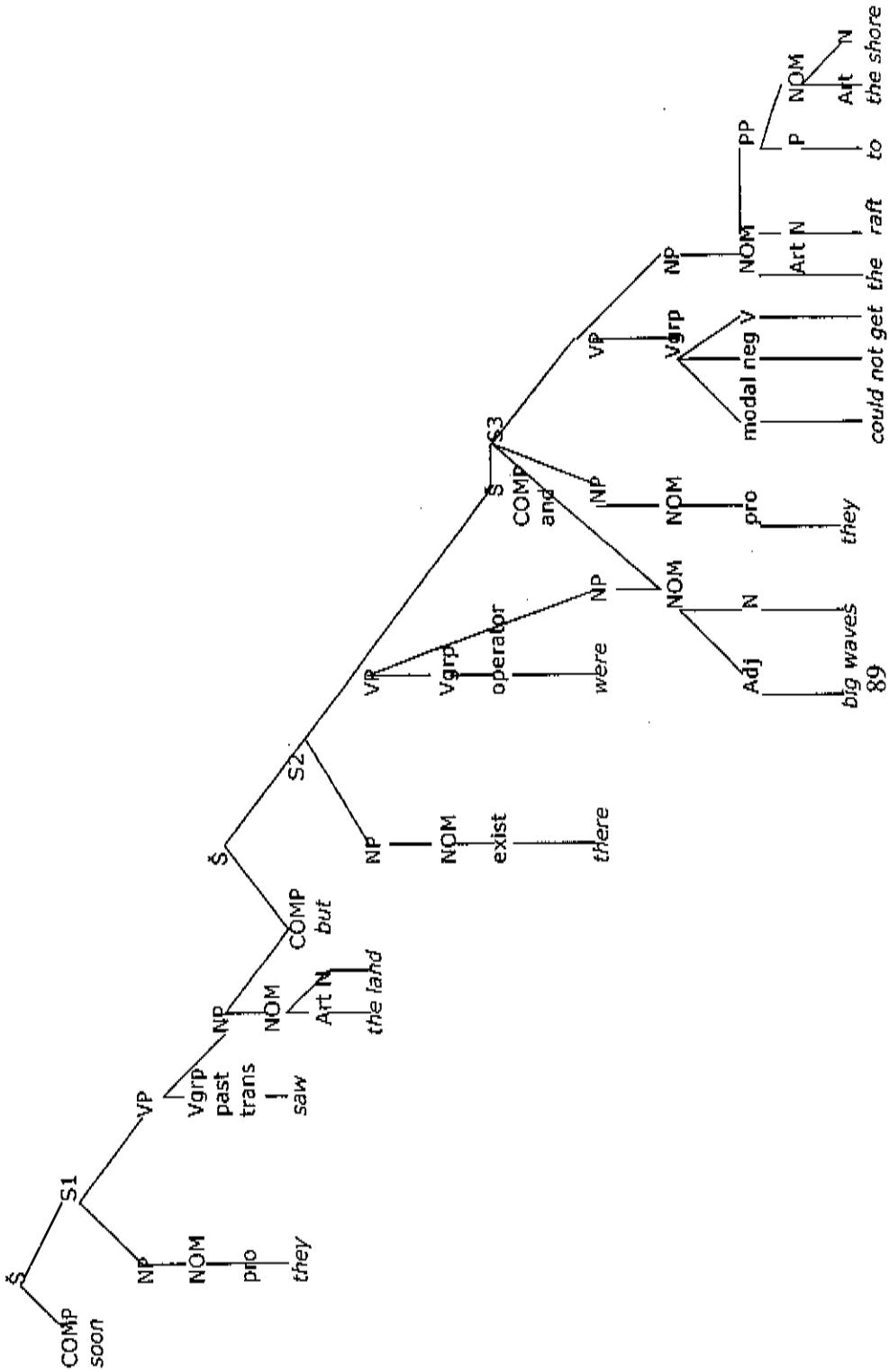
## 2.4.2.1 Summary of syntactic structures

The following are the structures found in this third L1 text. Note that this is not the full range of structures, because the sample text was so short.

| Language Texts | Text 1 Narrative (Riff Raff) | Text 2 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) |
|---|:---:|:---:|:---:|:---:|
| 1. All types of verb groups except for complex verb groups | ✓ | ✓ | ✓ | ✓ |
| 2. Commands, statements and denials | ✓ | | | |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | | | ✓ |
| 4. *how many* | | | | |
| 5. *what* | | | | |
| 6. Wh- in subordinate clause | ✓ | ✓ | | ✓ |
| 7. *Yes/No* questions, including auxiliary and modal fronting | ✓ | | | |
| 8. Tenses: present, past, present continuous, present perfect | ✓ | ✓ | | ✓ |
| 9. Tense: past perfect | | | | |
| 10. Relative clause with the relative pronoun *who* | | ✓ | | |
| 11. *that* as relative clause marker | | | | ✓ |
| 12. Co-ordinating sentences with *and* and *or* | ✓ | ✓ | | ✓ |
| 13. Co-odinating phrases with *and* (not *but* or *or*) | ✓ | ✓ | | ✓ |
| 14. *or* | ✓ | | | |
| 15. Passive construction | ✓ | | | ✓ |
| 16. Modal *can* | ✓ | ✓ | | ✓ |
| 17. Modal *could* | | ✓ | | |
| 18. Modal *must* | | | | |
| 19. Modal *may* | | ✓ | | |
| 20. Modal *must have* (concl.) | | | | |
| 21. Nonfinite verb group complement (I) e.g. The best thing to do would be (for you) to tell him. | ✓ | ✓ | | ✓ |
| 22. Non-finite verb group complement: (II) All I did was hit him on the head. | ✓ | | | ✓ |
| 23. Non-finite post modifier of NP (PP) | ✓ | | | |
| 24. Phrasal NP postmodifier | ✓ | v | | v |
| 25. Phrasal NP premodifier | | v | | v |
| 26.Finite adverbial with *before, then, because, soon, now,* and *because, so as* and *until* | | | | |
| 27. *when/how* | ✓ | | ✓ | |
| 28. Comparative clauses *as big* | | ✓ | | |

| | | | | |
|---|---|---|---|---|
| *as/as fast as* | | | | |
| 39. Subordinating conjunctions *before, then* | | | | |
| 40. *because, where, when, if* | | | | ✓ |
| 41. *when, what, who, about what* | ✓ | ✓ | | |
| 42. *then* | | | | |
| 43. *at* | | ✓ | | |
| 44. Wh- in subordinate clauses | ✓ | ✓ | ✓ | ✓ |
| 45. Discourse markers (COMP) *now, then* | ✓ | ✓ | | |
| 46. Past perfect tense | | | | |
| 47. *that* as relative clause marker | ✓ | ✓ | | ✓ |
| 48. Ellipsis/substitution | ✓ | ✓ | | ✓ |
| 49. Lists | | | | |
| 50. Multiple embedding | ✓ | ✓ | | ✓ |
| 42. Adverbial phrases (PP): Purpose | ✓ | | | ✓ |
| 43: Time | ✓ | ✓ | | ✓ |
| 44: Place | ✓ | ✓ | | ✓ |
| 45. Manner | ✓ | ✓ | | |
| 46. Present participle | | | | |
| 47. Past participle | ✓ | ✓ | | |
| 48. Asyndetic co-ordination | | ✓ | | ✓ |
| 49. Possessive | ✓ | ✓ | | |
| 50. Demonstrative | ✓ | ✓ | | ✓ |
| 51. Existential *there* | ✓ | ✓ | | |
| 52. *And* as sentence initial | | ✓ | | |
| 53. NP in apposition | | ✓ | | ✓ |
| 54. Transposed clause/phrase | | ✓ | | ✓ |
| 55. Conjunctions | when, as soon as, even, then, if too, as (Adverbial) | now, before, at once, and, then, suddenly, and there, only so, but, however, for a time, only, where, were | about how... then... that... | once seen, but, and, when, where, at these times, since, also, as |
| **TOTAL** | 30 | 32 | 20 | 25 |

## 2.4.3 Vocabulary

The list of vocabulary appears on the following page. This vocabulary is derived from the original text. There are 127 lexemes in this extract. In the original text there were 286 words against the 355 words in the rewritten text. Note that there are no real conjunctions to speak of, but there were very many "the's" that had to be deleted. "The" is anaphoric if it refers to a word in the previous sentence, but in this case the "the" was merely part of lexical reiteration –"the men..." etc.

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The words that would probably give some difficulty include:

"raft", "mast", "sail", "shark", "thought", "Pacific", "Peru", "Polynesian", "trunks" and "vines". All these words with the exception of "thought" can be demonstrated visually, and therefore be resolved.

In conclusion, it must be said that while this is a poorly constructed text, it is not the most difficult non-fiction or narrative text, which is the one which follows ("I am a Walrus"). If children are only exposed to such impoverished texts, they will doubtless have difficulty reading more complex expository texts.

| **Vocabulary:** | done | islands | people |
|---|---|---|---|
| a | dream | it | Peru |
| about | each | killed | Polynesian |
| again | fast | *Kontiki* | put |
| also | find | liked | radio |
| America | first | little | raft |
| and | food | long | right |
| at | for | lots | said |
| ate | from | made | sail |
| be | get | make | saw |
| big | go | many | say |
| books | goodbye | masts | sea |
| build | got | men | see |
| but | had | move | setting |
| by | have | must | shark |
| called | he | near | show |
| came | help | need | so |
| come | hen | nine | some |
| compass | here | not | soon |
| could | him | of | South |
| crew | his | on | still |
| days | how | one | strong |
| did | hut | out | sure |
| did | in | Pacific | tell |

| | | | |
|---|---|---|---|
| that | time | use | would |
| the | to | vines | write |
| their | together | wanted | |
| them | took | was | |
| they | tree | water | ***125 Lexemes*** |
| things | trip | way | |
| think | trunks | went | |
| thought | two | were | |
| tied | up | with | |

## 2.5 Text Four: *I am a Walrus*

This section deals with the fourth text – non-fiction and expository.

This book *I am the Walrus* is published by Shortland Publications (New Zealand and Australia).

In the first six sections we get literal information about the walrus, lavishly illustrated. It is followed by two stories. The first, an Inuit tale: *How the Walrus Learned to Float*, and then the poem by Lewis Carroll: *The Walrus and Carpenter*. Neither of the stories was felt to be appropriate – the Inuit tale too short and the Carroll tale too whimsical.

So, thirty sentences out of this little book contained a great deal of information. There is a general introduction to the walrus, its fin-feet, its tough skin, and how the walrus can draw its blood into the internal organs when in very cold water. The tusks are described together with its uses – defending itself, and making a hole in the ice. Finally we learn where the walrus lives and where it migrates to.

Given that schools with a reputation for high levels of literacy get children to do mini-projects in Grades 2 and 3, this book would seem to be a very useful book for Grade 3 children. However, whether this kind of text can be accessed by L2 learners is an open question for now.

Pictures from the book are to be found on the next three pages.

# Welcome, Walrus!

Once seen, the walrus is not easily forgotten. Indeed, this long-tusked, blubber-covered Arctic mammal is one of the most amazing animals in the world.

It is part of an order of mammals called *pinnipeds*, from the Latin word meaning "fin-footed". Walruses use their flippered feet for swimming. But, when on land, they can turn their hind flippers forward and walk on all four "feet". Seals and sea lions are also pinnipeds.

The walrus is a large animal. Adult male walruses can weigh up to 1,600 kilograms and grow up to 3.6 metres long.

back flippers
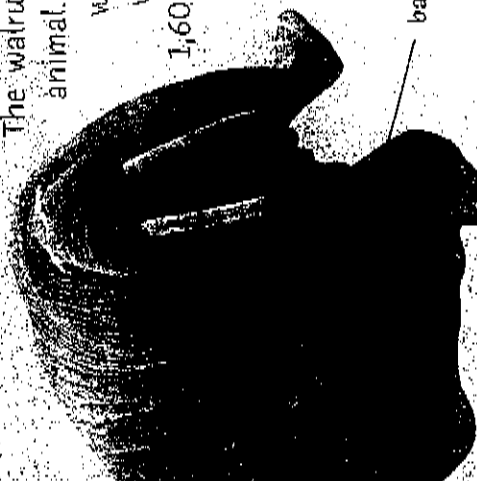
4

The walrus has a tough skin that is about fifty times thicker than human skin. Walruses also have a layer of blubber under their skin. This fatty tissue helps them to float, and keeps them warm in the cold Arctic waters.

Like all mammals, walruses are warm-blooded. When a walrus is in cold water, its blood flows away from its skin to protect the internal organs from the cold. At these times, its skin looks almost white. When on land, the walrus looks rosy pink in colour because the blood flows back to the skin, where excess heat is released.

This walrus looks almost white. Its blood has been directed away from its skin.

5

# Tusk Force

An adult male walrus, or *bull*, has long ivory tusks. The female walrus, called a *cow*, has shorter, more curved tusks. Walruses use their tusks to defend themselves against polar bears. Tusks also help to establish social order in the group or herd. The walrus with the biggest and longest tusks is in charge.

Since walruses have to breathe air, they need to make sure that they don't get trapped under hard ice when they're in the water. Tusks (and heads) come in handy to break holes in the ice. Walruses also use their tusks to haul themselves out of the water onto a beach or ice floe (called an *ooglit* by the native *Inuit* people).
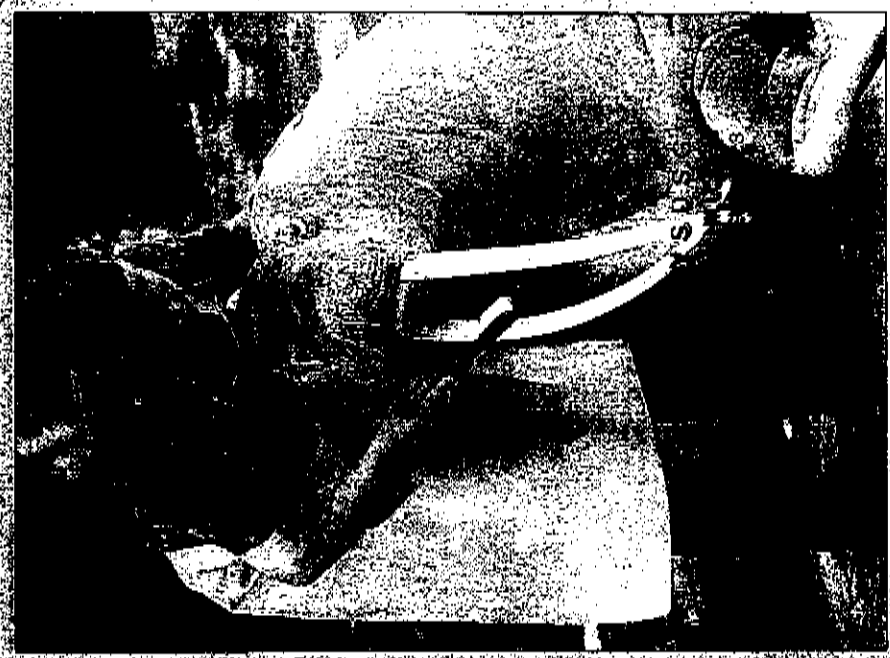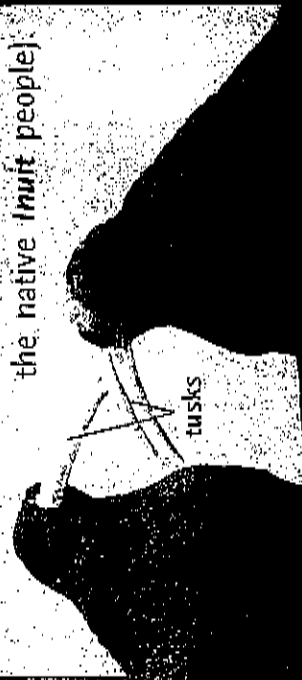
tusks

Walruses keep their tusks clean by scraping them along the sandy ocean floor when they are looking for food. In captivity, walruses need some extra human help.

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# Way up North

Way up north is where walruses live, in the Arctic seas and the northern parts of the Pacific and Atlantic oceans. There are two types of walrus, the Pacific walrus and the Atlantic walrus, but there are very few Atlantic walruses left in the wild.

The Pacific walrus *migrates* to follow the pack ice. As the Bering Sea ice begins to melt in the spring, the walruses move north towards the Chukchi Sea. The cows go as far north as Point Barrow and Wrangel Island to have their babies.

Walruses like nothing better than to relax with the herd on an ooglit.

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Most of the bulls do not go so far north, and some even stay in the Bering Sea. In autumn, the ice starts to move south again. The cows and their young ones have to travel back through the Bering Strait before it freezes. The bulls begin to move north to meet them. Virtually the entire population occupies the pack ice in the Bering Sea during the winter months. In January and February, the mixed herds mate.
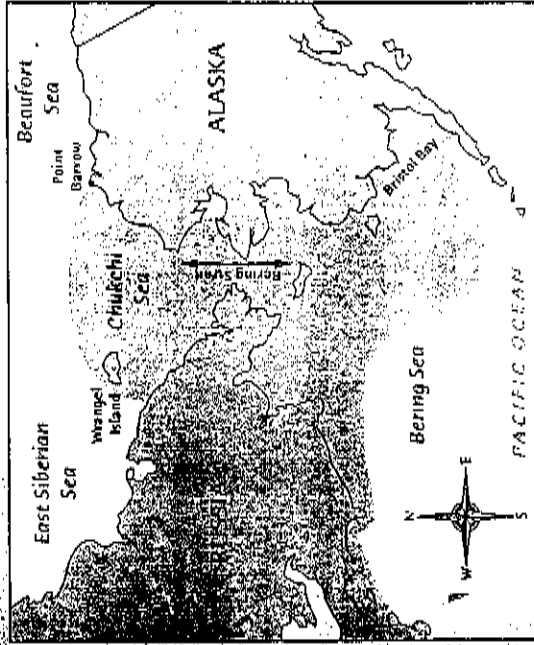
The range of the Pacific walrus is shown in darker blue. Walruses move north in summer and south in winter.

9

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## 2.5.1 Coherence

This picture book doesn't have labels as such for the pictures that occur on every page. However, we learn something more from each picture. Each double spread has a heading. "Welcome, Walrus", "Tusk Force" and "Way up North". The special nature of the back flippers is indicated on Page 4. A walrus looks almost white after a swim, and an example of one is circled in red. On Page 6 the smaller nature of the female tusks are shown (at least that is my presupposition), and on Page 7, there is a separate picture, where a walrus keeper is helping the walrus to keep its tusks clean with the use of a big brush. (And the vast animal looks quite phlegmatic about it all.) On Page 8, there is a picture of walruses relaxing on ice floes. Finally, for our extract, there is a map of Alaska and Russia showing where the walruses migrate: it is most surprising that walruses follow the ice – going north in summer, contrary to probably most other animals. Apart from that, this is an unusual map – young children may be used to the continents, but showing where Russia and Alaska nearly touch would not be immediately recognizable; but of course it is appropriate here.

## 2.5.2 Cohesion

### *TEXT*

#### Welcome, Walrus

Once seen[2a], the walrus[1a] is not easily forgotten[2b]. Indeed this[1b] long-tusked blubber covered Arctic mammal[3a][4a] is one of the most amazing animals[3b] in the world. It[1c] is part of the order of animals[3c] called pinnipeds[5a][6a], from the Latin word meaning "fin-footed"[6b][8a]. Walruses[1d] use their[6c][7a] flippered feet[6c][7a] for swimming[8a]. But, when on land, they[1e] can turn their[1f] hind flippers[7b] forward[8b] and[1g]Ø move on all four "feet"[8c]. Seals and sea lions are also pinnipeds[5b].

The walrus[1h] is a large animal[3d]. Adult male walruses[1e] can weigh up to 1600 kilograms and grow up to 3,6 metres long.

The walrus[1i] has a tough skin[9a] that is about fifty times thicker than human skin[9b]. Walruses[1j] also have a layer of blubber[10a] under their[1k] skin[10b]. This fatty tissue[10c] helps them[1l] to float[11a] and keeps them[1m][11b]

warm[12a] in the cold[12b] Arctic waters.

Like all mammals[4c], walruses[1p] are warm-blooded[13a]. When a walrus[1n] is in cold[12b] water[13b], its[1o] blood flows away from its[1p] skin to protect the internal organs from the cold[12c]. At these times[14a], its[1q] skin looks almost white[16a]. When on land[15b], the walrus[1v] looks rosy pink[14b] in colour because the blood flows back[14c] to the skin, where excess heat is released.

### Tusk force

An adult male[15a] walrus[1j], or bull, has long ivory tusks[16a][17a]. The female[15b][16a] walrus[1k], called a cow[16b], has shorter, more curved tusks[19b][17b]. Walruses[1l] use their tusks[17c] to defend themselves[18b] against polar bears. Tusks[17d] also help to establish[19a] social order in the group or herd.

Since walruses[1w] have to breathe air, they[1x] have to make sure that they[1y] don't get trapped under hard ice when they're[1z] in the water[20a]. Tusks[1aa] (and heads) come in handy to break holes in the ice[20a][25c]. Walruses[1bb] also use their[1cc] tusks[17] to haul themselves[1dd] out of the water[20b] onto a beach or ice floe (called an ooglit by the native Inuit people.)

### Way up North

Way up north[21a] is where walruses live, in the Arctic seas[21b] and the northern parts of the Pacific[21c] and Atlantic oceans. There are two types of walrus[1n], the Pacific walrus[1r] and the Atlantic[21d] walrus[1o], but there are very few Atlantic[22b] walruses[1p] left in the wild.

The Pacific walruses[1s] migrates[23a] to follow the pack[23b]. As the Bering Sea ice begins to melt in the spring, the walruses[1t] move north towards the Chukchi Sea. The cows go as far north[23c] as Point Barrow and Wrangel Island to have their babies.

Most of the bulls do not go so far north[23d], and some even stay in the Bering Sea. In autumn, the ice starts to move south again[23e].

## ANALYSIS

1[a][b][t] lexical repetition "walrus". There is a good deal of anaphoric reference in this, which is specified here. Walrus – "them", "it", "they", "they're", for example.

1[b][c] anaphoric reference "this" "it"

1[c][d] cataphoric reference "it" "walrus"

1[c][e] anaphoric reference "it" "Ø"

1[i][j] lexical reiteration "walrus" "walrus"

1[i][k] anaphoric reference "walrus" "their"

1[i][l] anaphoric reference "walrus" "them"

4[c][1m] cataphoric reference "them" "mammals"

1[n][o] anaphoric reference "walrus" "its"

1[n][p] anaphoric reference "walrus" "its"

1[n][q] anaphoric reference "when" "at these times"

1[w][x] anaphoric reference "walrus" "they"

1[w][y] anaphoric reference "walrus" "they"

1[w][z] anaphoric reference "walrus" "they're"

1[bb][cc] anaphoric reference "walrus" "their"

1[bb][dd] anaphoric reference "walrus" "themselves"

2[a] lexical cohesion "once seen" "not easily forgotten"

3[a][b][c] lexical reiteration "mammals"

4[a][b][c][d] lexical reiteration "animals"

5[a][b] lexical reiteration "pinnipeds"

6[a] [b][c] lexical cohesion "pinnipeds" "fin-footed" "fin-footed"

7[a][b] lexical cohesion "feet" "flippers"

8[a][b] lexical cohesion "swimming" "forward" "move"

9[a][b] lexical cohesion "tough skin" "human skin"

10[a][b][c] anaphoric reference "layer of blubber" "their" "this"

11[a][b][c] anaphoric reference "fatty tissue" "them" "them"

12[a][b][c] lexical cohesion "warm" "cold" "Arctic waters"

13[a][b] lexical cohesion "warm-blooded" "its blood"

14[a][b] lexical cohesion and anaphoric reference "in the cold water" "at these times"

15[a][b] lexical cohesion "water" "land"

16[a][b][c] lexical cohesion "white" "rosy pink" "blood flows back"

17[a][b]lexical cohesion and reiteration "long ivory tusks" "shorter more curved tusks"

18[a][b][c][d]anaphoric reference "walruses" "themselves" "they" "they're"

19[a][b] lexical cohesion "establish social order" "in charge"

20[a][b] lexical cohesion "break holes in the ice" "haul themselves out of the water"

21[a][b][c][d] lexical cohesion "way up north" "Arctic seas" "northern parts of the Pacific and Atlantic oceans" "Atlantic {walrus}"

22[a][b] lexical reiteration "Atlantic walrus" Atlantic walruses"

23[a][b][c][d][e] lexical cohesion "migrates" "follow the pack ice" "the cows go as far north..." "do not go so far north" "starts to move south again."

Collocation:  "mammal"      "animal"
              "swimming"    "land"
              "warm"        "cold"
              "cold water"  "land"
              "male"        "female"

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"ice"      "water"
"ice"      "melts"
"cows"     "bulls"
"cows"     "young ones".

*Conjunctions*: "once seen" "but" "and" "when" "where" "at these times" "since" "also" "as".

This text is highly cohesive:

| Anaphoric Reference | Lexical cohesion | Lexical reiteration | Collocation |
|---|---|---|---|
| 19 | 13 | 11 | 9 |

The reiteration is mainly the word "walrus" and the anaphoric reference is mainly back to the word "walrus". This means that there is not an excessive use of the noun. The cohesion will help to construct the situation for the reader.

## 2.5.3 Syntax

The total scheme of the syntax used is reproduced for all the texts, so that this text may be compared with the other texts' structures.

### 2.5.3.1 Summary of syntactic structures

| Language Texts | Text 1 Narrative (Riff Raff) | Text 2 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) |
|---|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ | ✓ | ✓ | |
| 2. Commands, statements and denials | ✓ | | | |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | | | |
| 4. *how many* | | | | |
| 5. *what* | | | | |
| 6. Wh- in subordinate clause | ✓ | ✓ | | |
| 7. *Yes/No* questions, including | ✓ | | | |

| | | | | |
|---|---|---|---|---|
| auxiliary and modal fronting | | | | |
| 8. Tenses: present, past, present continuous, present perfect | ✓ | ✓ | ✓ | ✓ |
| 9. Tense: past perfect | | | · | |
| 10. Relative clause with the relative pronoun *who* | | ✓ | | |
| 11. *that* as relative clause marker | | | | ✓ |
| 12. Co-ordinating sentences with *and* and *or* | ✓ | ✓ | ✓ | ✓ |
| 13. Co-odinating phrases with *and* (not *but* or *or*) | ✓ | ✓ | ✓ | |
| 14. *or* | ✓ | | | |
| 15. Passive construction | ✓ | | | ✓ |
| 16. Modal *can* | ✓ | ✓ | | ✓ |
| 17. Modal *could* | | ✓ | ✓ | ✓ |
| 18. Modal *must* | | | ✓ | ✓ |
| 19. Modal *may* | | ✓ | ✓ | ✓ |
| 20. Modal *must have* (concl.) | ✓ | ✓ | ✓ | ✓ |
| 21. Nonfinite verb group complement (1) e.g. The best thing to do would be (for you) <u>to tell him</u> | ✓ | ✓ | ✓ | |
| 22. Non-finite verb group complement (II) All I did was <u>hit him</u> on the head | ✓ | | ✓ | |
| 23. Non-finite post modifier of NP (PP) | ✓ | | ✓ | |
| 24. Phrasal NP postmodifier | ✓ | ✓ | | |
| 25. Phrasal NP premodifier | | ✓ | | ✓ |
| 26. Finite adverbial with *before, then, because, soon, now,* and *because, so as* and *until* | | | | ✓ |
| 27. *when/how* | ✓ | | ✓ | |
| 28. Comparative clauses *as big as/as fast as* | | ✓ | | ✓ |
| 29. Subordinating conjunctions *before, then* | | | ✓ | ✓ |
| 30. *because, where, when, if* | | | | ✓ |
| 31. *when, what, who, about what* | ✓ | ✓ | | |

| | | | | |
|---|---|---|---|---|
| 32. *then* | | | ✓ | |
| 33. *at* | | ✓ | | |
| 34. Wh- in subordinate clauses | ✓ | ✓ | ✓ | |
| 35. Discourse markers (COMP) *now, then* | ✓ | ✓ | ✓ | |
| 36. Past perfect tense | | | ✓ | |
| 37. *that* as clause marker | ✓ | ✓ | ✓ | |
| 38. Ellipsis /substitution | ✓ | ✓ | ✓ | |
| 39. Lists | | | | |
| 40. Multiple embedding | ✓ | ✓ | ✓ | |
| 41. Adverbial phrases (PP): Purpose | ✓ | | ✓ | |
| 42: Time | ✓ | ✓ | ✓ | |
| 43: Place | ✓ | ✓ | ✓ | |
| 44. Manner | ✓ | ✓ | | |
| 45. Present participle | | ✓ | | |
| 46. Past participle | ✓ | ✓ | | |
| 47. Asyndetic co-ordination | | ✓ | | |
| 48. Possessive | ✓ | ✓ | ✓ | |
| 49. Demonstrative | ✓ | ✓ | | |
| 50. Existential *there* | ✓ | ✓ | ✓ | |
| 51. *And* as sentence initial | | ✓ | | |
| 52. NP in apposition | | ✓ | | |
| 53. Transposed clause/phrase | | ✓ | | |
| 54. Conjunctions | when, as soon as, even, then, if, too, as | now, before, at once, and, suddenly, and there | about how, first, then, so that, so | once seen, but and when where at these since also as |
| TOTAL | 30 | 32 | 20 | 27 |

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### 2.5.3.2 Tree diagram

*When a walrus is in cold water, its blood flows away from its skin to protect its internal organs from the cold.*

```
S
 |
 |----S1
COMP    |
 |      NP        VP
When    |         |
       NOM      Vgrp   PP
      /   \      |    /   \
    ART    N    oper P    NOM_____S2
     |     |     |   |    /   \      |
     a   walrus  is  in Adj   N    NP        VP
                       |      |    |         |
                      cold  water NOM      Vgrp      PP
                                  /  \    phrasal   /  \
                                poss  N   V  partic P   NOM_____S3
                                 |    |   |    |    |   /   \
                                its blood flows away from POSS  N

                                                         its   skin
     ▲S3
     /  \
    NP   VP
    |   [-tense]
    |   [-finite]
    Ø   partic  V    NP
         |           |
      to protect    NOM
                   / | \
                 DET ADJ N    PP
                 /   |   |   /  \
            its internal organs P   NOM
                               |    /  \
                             from  ART  N
                                   |    |
                                  the  cold
```
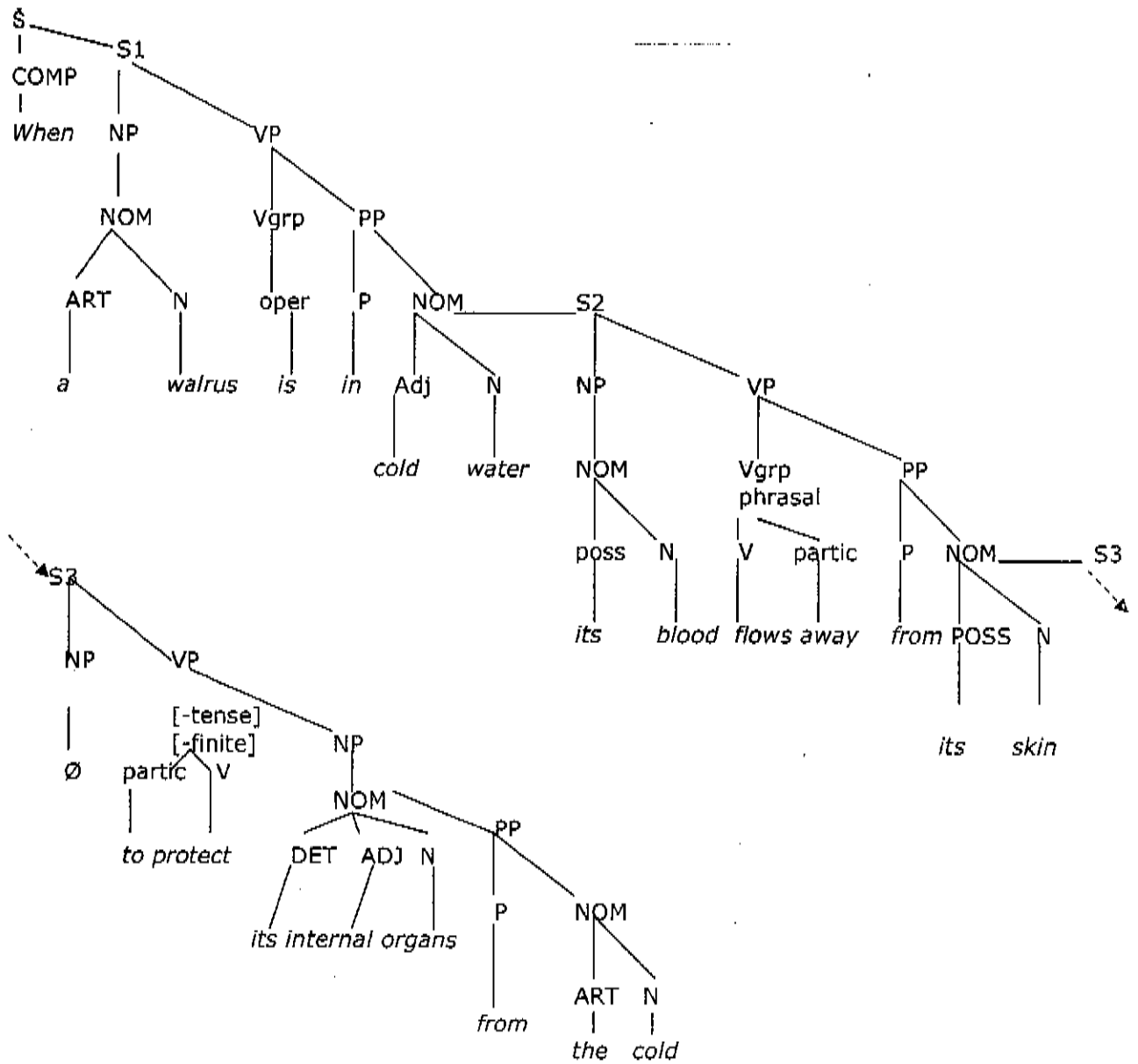
## 2.5.4 Vocabulary

| | | | |
|---|---|---|---|
| a | against | also | animals |
| about | air | amazing | Arctic |
| adult | all | an | are |
| again | almost | and | as |

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| | | | |
|---|---|---|---|
| at | excess | holes | move |
| Atlantic | far | human | native |
| autumn | fatty | ice | North |
| away | feet | in | not |
| babies | female | indeed | oceans |
| back | few | internal | of |
| Barrow | fifty | *Inuit* | on |
| beach | fin-footed | is | once |
| bears | flippered | island | onto |
| because | float | it | *ooglit* |
| begins | floe | ivory | or |
| Bering | flows | keeps | order |
| blood | follow | kilograms | organs |
| blubber | for | land | out |
| break | forgotten | large | Pacific |
| breathe | forward | Latin | pack |
| *bull* | four | layer | parts |
| but | from | left | people |
| by | get | like | pink |
| called | go | lions | *pinnipeds* |
| can | group | live | point |
| Chukchi | grow | long | polar |
| cold | handy | long-tusked | protect |
| colour | hard | looks | released |
| come | has | make | rosy |
| covered | haul | male | sea |
| *cow* | have | mammals | seals |
| curved | heads | meaning | seas |
| defend | heat | melt | seen |
| do | help | metres | shorter |
| easily | herd | migrates | since |
| establish | here | more | skin |
| even | hind | most | so |

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| | | | |
|---|---|---|---|
| social | themselves | tusks | weight |
| some | there | two | when |
| south | these | types | where |
| spring | they | under | white |
| starts | they're | up | wild |
| stay | thicker | use | word |
| sure | this | their | world |
| swimming | times | very | Wrangel |
| tusks | tissue | walk | |
| than | to | walrus | 3.6 |
| that | tough | warm | 1,600 |
| the | towards | warm-blooded | *__210 Lexemes__* |
| their | trapped | water | |
| them | turn | way | |

The walrus is the longest excerpt to be selected. There were 419 words in total, giving 13,8 words per sentence. What is striking though is that it has by far the largest number of lexemes at 210. This reveals the fact that it covers the greatest number of different topics or ideas. I have identified 14 words that may give the children difficulty, and not all are readily explainable:

"adult", "almost", "blubber", "excess", "fin-footed", "floe", "handy", "haul", "layer", "released", "rosy", "tissue", "tough", "warm-blooded", "weight".

It remains to be seen whether L1 children can work the meanings of these words.

## 2.5.5 Conclusion

This little book is a fine source of expository text for young learners. It is not possible to make any direct comparison with the narrative texts except to say that it deals with more difficult concepts. Its grammar, on the other hand, was not particularly difficult in relation to the other texts, and there is excellent pictorial support. Hence a balance may have been achieved to support the young reader.

# CHAPTER 3: SECOND LANGUAGE SCHEMES

## 3.1 L2 Scheme One

### 3.1.1 Introduction

This analysis of three L2 or FAL (First Additional language) schemes follows the theoretical model (see Chapter 1) that was developed for this research. It is a linguistic model; the actual use of the schemes by teachers and learners in classrooms forms a different part of a larger project. This chapter relates to materials from three different schemes for children who are not English-speaking, but who will be learning through the medium of English, probably from Grade 4 onwards.[1]

This section is about the first of the three schemes analysed. The procedure for the analysis of all three schemes is as follows:

a. A scanned page or two forms a focus point for the reader. Linguistic analyses are difficult and boring to read without a context.

b. Then there is a short statement about the coherence in the material as a whole.

c. A cohesion analysis of 30 sentences follows. It shows the text as well as the analysis. There is no claim that this cohesion analysis is exhaustive; and a slightly simplified analysis is offered.

d. Then a tree diagram of one of the sentences is presented. This is generally a sentence that shows some interesting aspect of the sentences analysed.

e. At the end of all three analyses, a summary is given of the syntactic structures that were used in the extracts. This summary is largely derived from the findings of Van Rooyen in 1990, although extra items have been added.

f. Last, a list of the vocabulary structures in the 30-sentence selection is presented. This cannot be taken as evidence that one scheme has more vocabulary than another. For example, in the third scheme, I inadvertently

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[1] The procedure for analysis is repeated for each scheme for easy reference by the reader.

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chose a story that had the underlying structure of a Mathematics word problem, and so the vocabulary was restricted to one focus: finding sheep.

g. Another major difference from earlier research (1985-1990) is that there is now a great deal more reading for the children to do. All the schemes have readers, not always at the same level as the language books. In fact I chose to analyse extracts from the readers, because they were the most cohesive and coherent, and not stilted in the pursuit of teaching specific structures.

h. As an Appendix, a Grade 2 text is presented which has formed the basis of two previous pieces of research, and therefore may be of interest when comparing what the children were capable of 10 and 20 years ago, and what they might be able to do in 2007.

## 3.1.2 Coherence

The extracts from this first L2 language scheme that we are discussing, come from the Grade 3 Reader on *Animal Shelters,* and the corresponding pages from the Learner's Book.

Essentially, the first selection is: *How do birds know where to go?* There are four pictures of different groups of birds that are not labelled or named. Nevertheless they were sympathetically drawn. The first is storks of some kind, in a winterish environment, with a bare tree and snow on a mountain. In the second selection, there seemed to be swifts of some type, flying over wooded territory by day. These also seemed authentic. The third illustration showed birds flying very close to the sea by night. It seems highly unlikely that birds that are not gulls (who do not migrate) fly so close to the sea. In the fourth picture, there are birds perched on a bare tree in a barren landscape. Presumably these birds are having a rest. It's important to note that the pictures only have a tangential relation to the text.

The section ends with what might be regarded as gratuitous: "What do you think? Do you know how birds know where to go?" Sourcing "migration" on the Web, it seems that scientists are themselves not clear, but magnetic currents seem to have something to do with it. The idea birds talking to each other is quite outside the

bounds of possibility, especially when we know that birds' song is hard-wired, and has no qualities of a natural language.

While this is an interesting passage, it should be noted that the whole passage is about migration, and the closest the text gets to talk about *shelters* is to talk about warm places. Actually, shelters such as nests cannot be fitted into these four pictures. Such discrepancies occur throughout the L2 courses, where generic titles of modules or chapters are often disregarded in a cavalier fashion. This suggests that authors (all the books are written by teams) have probably not brainstormed what should come under the generic titles.

In the Learner's Book, there is also a two-page section on *Animals' Shelter: Hot, cold or windy places*. Here the children are invited to read about where camels and bears live, and discuss this in small groups. "What is the same? What is different?" The pictures are not labelled. In fact camels have no shelters at all, and have to rely on their adaptations to the desert for their survival. Nevertheless the text is coherent, going through the adaptations one by one. (They did not, however, explain how crabby camels are with people, and how wayward they might be; this could be seen as counter-adaptive.)

### How do birds know where to go?

Every year when winter comes, birds fly for many days to find warm places where there is enough food and water. They know when winter is coming because they can feel that it is getting cold.
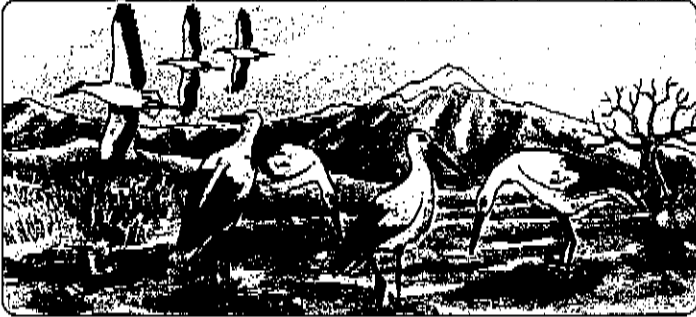


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But how do birds know where to go to find a warm place? They don't have books with maps to show them where to go.

Nobody really knows how birds know where to go. Some people think that they look down on the land when they are flying and follow the rivers and mountains.

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Some people think that birds can follow the sun and the moon and the stars to find where they must go. They think that birds read the stars, the moon and the sun like we read maps.

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Other people think that birds talk to each other when they sing. They think that this is how they tell each other stories about their long, long journeys to far-away lands where there is enough food and water.

What do you think? Do you know how birds know where to go?

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# Animals' shelters

## Hot, cold or windy places

A Read about the places where camels and bears live and talk about them in small groups. What is the same? What is different?
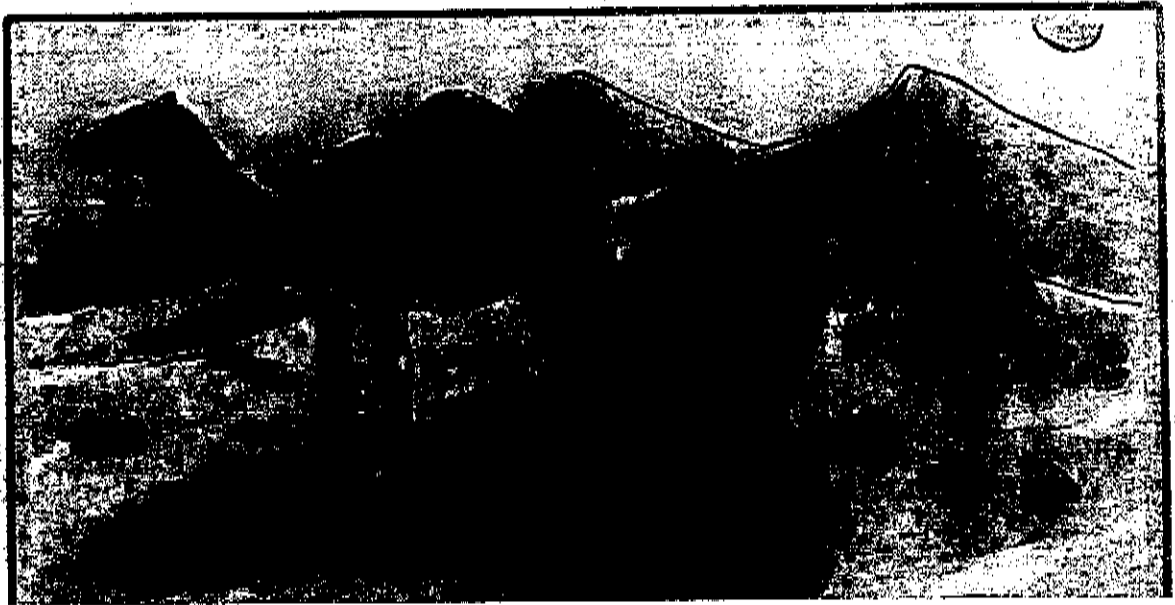


Camels live in places where it is very hot and very dry. We call these places deserts. There is a lot of dry sand, very few plants and little or no rain in a desert.

Camels do not have shelters. When they need to rest or sleep, they fold their legs and lie down on the sand.

Camels can walk in the hot, dry desert for days without drinking any water. When they get to water, they drink a lot of it at a time. A camel can drink forty litres of water at a time. That is like drinking forty bottles of milk!

Camels have long" eyelashes that protect their eyes from the sand when the wind blows. They have thick fur, because at night it is very cold in the desert.
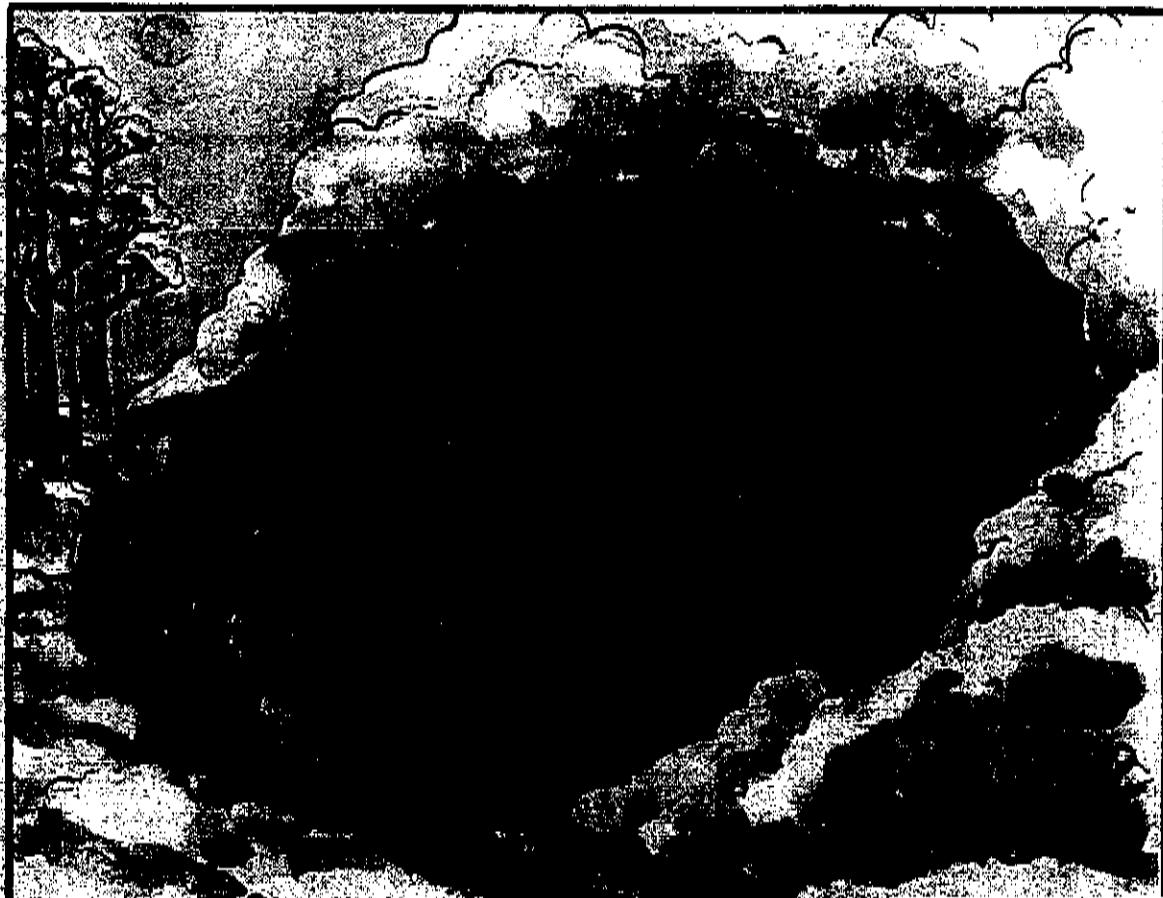
Some bears live in places where it is hot in summer and very cold in winter. In winter the ground is covered with snow and ice and it is difficult to find food. The bears go to sleep in dens during the winter. 'We say they hibernate. 'When spring comes and it gets warm, the bears wake up and look for food.

Baby bears are called cubs and they are born in the den.

B 'Write a short description of each home. Use the words in the word box if you need to.

| hot | cold | windy | sheltered | dark |
|-----|------|-------|-----------|------|

In the final picture above, we see a cutaway picture of a bear with its cubs in a den. This convention is probably not something the children have seen before. This extract provides a useful contrast to that about camels, because the bear uses the environment to cope with intense cold. During this hibernation time, they lose 50% of their bodily weight, and this is one reason why a Panda Bear cannot hibernate, because a diet of bamboo shoots doesn't allow it to build up enough body fat to hibernate. There is an interesting inference to be made: we generally assume that bears sleep the winter through; however, if they bring forth cubs, they must be awake to do so, and to suckle their cubs. This, however, is something that is not mentioned here. Once again there are no titles to the illustrations, but the pictures of camels and bears are self-explanatory.

### 3.1.3 Cohesion

*TEXT 1*

**Animal shelters**

**How do birds know where to go? [5a]**

How do birds[1a] know where to go[5b]? Every year when winter[2a] comes, birds[1b] fly for many days to find warm places[3a] where there is enough food and water[10a]. They[1c] know when winter[2b] is coming because they[1d] can feel that it is getting cold[2c]. But how do birds[1e] know where to go[4a] to find a warm place[3b]? They[1f] don't have books with maps[8a] to show them[1f] where to go[5b]. Nobody[6a] really knows how birds know where to go[5c]. Some people[6a] think that they[1g] look down on the land when they[1h] are flying and follow the rivers and mountains. Some people[6b] think that birds[1i] can follow the sun and the moon and the stars[9a] to find where they must go. They[6c] think that birds[1j] read the stars, the moon and the sun[9a] like we read maps[7a]. Other people[6d] think that birds[1j][9a] talk to each other when they sing[8a]. They think[6e] that this is how[8b] they[9b] tell each other[9c] stories about their[9d] long, long journeys to far-away lands where there is enough food and

water[10b]. What do you[11a] think? Do you[11b] know how birds know where to go[5c]?

*ANALYSIS 1*

1. [a][b][c][d][e] lexical reiteration "birds"
1. [b][c][e][f] anaphoric reference "birds" "they"
2[a][b][c] lexical reiteration and cohesion "winter" "getting cold"
3[a][b] lexical reiteration "warm places"
4[a][b][c] lexical reiteration "where to go"
5[a][b] lexical reiteration "how do birds know where to go?"
6[a][b] lexical reiteration "Some people" (these don't have the same referent)
6[b][c] anaphoric reference "Some people" "they"
6[b][d] lexical cohesion "some people" "other people"
6[d][e] lexical cohesion "other people" "they think"
7[a][b] lexical cohesion "follow the sun etc." "like we read maps"
8[a][b] lexical cohesion "talk to each other" "how they tell"
9[a][b][c] lexical reiteration "talk to each other when they sing" "this is how they tell each other"
9[a][b][c] anaphoric reference "birds" "they" "their"
10[a][b] lexical reiteration "enough food and water"
11[a][b] exophoric reference "you think" "you know"
Collocation:   "birds" "fly"
                "food" "water"
                "winter" "cold"
                "the sun, the moon and the stars".

*TEXT 2*

**Animal shelters**

**Hot, cold or windy places**

Camels[5a] live in places[1a] where it is very hot[2a] and very dry[2b]. We call these places[1b] deserts[2c]. There is a lot of dry sand[2d], very few plants and little or no rain[2e] in a desert[2d]. Camels[5b] do not have shelters. When they[5c] need to rest or sleep[7a], they[5d] fold their legs[7b] and[5Øc] lie down on the sand[7c]. Camels[5f] can walk in the hot, dry deserts[2e] for days without drinking water[3a]. When they[5g] get to water[3b], they[5h] drink[3c] a lot of it[3d] at a time[4a]. A camel[5i] can drink[3d] forty litres of water[10] at a time[4b]. That[Ø] is like drinking forty bottles of milk[4c]. Camels[5j] have long eyelashes that protect their eyes from the sand[7d] when the wind blows. They[5k] have thick fur, because at night it is very cold in the desert[2f].

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## ANALYSIS 2

1[a][b]lexical reiteration "these places"

2[a][b][c][d][e][f] lexical cohesion "hot" "dry "deserts" "sand" "little or no rain" "in the desert"

3[a][b][c][d] lexical cohesion "water" "drinking water" "drinking" "drink a lot of it"

4[a][b] lexical reiteration "at a time" "at a time"

5[a][b][c][d][e][f][g][h][i][j][k] lexical reiteration "camel"

5[f][g][h] anaphoric reference "camels" "they"

6[a][b]lexical comparative (cohesion) forty litres of water" "forty bottles of milk"

Collocation:   "hot" "dry"
               "deserts" "dry sand"
               "camels" "drinking water".

## TEXT 3

### Animal shelters

### Hot, cold or windy places

Some bears[1a] live in places where it is hot in summer[2a] and very cold in winter[2b]. In winter[2c] the ground is covered with snow and ice[2d] and it is difficult to find food. The bears[1b] go to sleep[3a] in dens[5a] in the winter[2e]. We say they hibernate[3b]. When spring[4a] comes and it gets warm[4b], the bears[1c] wake up[3c] and[3dØ] look for food. Baby bears[6a] are called cubs[6b] and they are born in the den[5b].

## ANALYSIS 3

1[a][b][c] lexical reiteration/anaphora "bears" "the bears"

1[b]7[a] lexical cohesion "bears" "baby bears"

2[a][b] lexical cohesion "hot in summer" "very cold in winter"

3[a][b][c] lexical cohesion "go to sleep" "hibernate" "wake up"

3[c][d] ellipsis "bears" "Ø"

4[a][b] lexical cohesion "spring comes" "it gets warm"

5[a][b] lexical reiteration "dens"

6[a][b] lexical cohesion "baby bears" "cubs"

7[a][b] anaphoric reference "cubs" "they"

Collocation:   "hot" "summer"
               "very cold" "winter"
               "go to sleep" "hibernate"
               "spring" "gets warm".

Here is a summary of the cohesive devices used in the texts:

| Anaphoric Reference | Lexical Cohesion | Lexical Reiteration | Collocation | Exophoric Reference | Ellipsis |
|---------------------|------------------|---------------------|-------------|---------------------|----------|
| 9 | 21 | 28 | 43 | 1 | 3 |

### 3.1.3.1 Commentary on cohesion

### 1. Birds

This text is moderately cohesive, with a range of devices including lexical reiteration, anaphoric reference, lexical cohesion and exophoric reference.

### 2. Camels and Bears

The section on camels is reasonably cohesive, but with an excessive use of lexical reiteration: "camels". The section on bears is characterized by reiteration and lexical cohesion. There is no anaphoric reference.

It is probably safe to assume that the authors on Birds versus Camels and Bears are different, but the extended text on bird migration lends itself to a range of cohesive devices. It is significant that there is relatively little anaphoric reference – reference is constructed by reiteration instead, which is not a felicitous device, especially when the referent is very clear, including here, a picture. The writer was over-aware of writing for a Language book.

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## 3.1.4 Syntax

There is a summary of the syntactic structures at the end of the L2 section. However, a few remarks are appropriate here. Cohesion is different for Readers and Learner's Books (look at this paragraph from a Reader):

"Every year when winter comes, birds fly for many days to find warm places where there is enough food and water." [21 words]

Now compare this sentence with four sentences from the Learner's Book for reinforcing the learning of *he, his, she,* or *her.*

"Mr Jonas lived next door. He smelt something burning. He ran out of the house. He called the neighbours. They soon put out the fire." [26 words]

This stilted syntax could easily have been made more cohesive, for example:

"Mrs Masemola lived in a small house *in which* she cooked her supper on her stove every night. One night she put a pot on her stove to cook her supper. But that night she was not careful *and* knocked over her stove *and so* her house started to burn. *Mr Jonas, who lived next door, thought that he smelt something burning so he ran outside and called the neighbours, who helped to soon put the fire out.*" [65 words]

The number of sentences has been reduced in this way.

Note, however, that the children may not yet know these cohesive elements, and so foregrounding pronouns may be made more difficult. Equally though, the stilted sentences do not test what they purports to test – only "he" and "they" are used in this exercise.

In this scheme there are eleven pieces of extended text in the Learner's Book, and fourteen in the Reader. Also in the Reader there are a number of poems that are

lighthearted and suit the children. There are 390 words in the analysed text, meaning that the average length of the sentences is 13 words.

### 3.1.4.1 Summary of syntactic structures

The following are the language structures found in the three L2 schemes. As can be seen, they are very simple, and following this summary, we may compare these with structures found in the L1 selections. Note: because the sampling was so small, some structures will have inevitably slipped through the net of the analysis. Nevertheless, there are more structures here than there were in Van Rooyen's (1990) analysis of Grades 2-4 materials.

| L2 Language Schemes | Scheme 1 | Scheme 2 | Scheme 3 |
|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | | ✓ | ✓ |
| 2. Commands, statements and denials | | ✓ | ✓ |
| 3. Wh- questions with words like *who, how* and *how much* | | ✓ | ✓ |
| 4. *how many* | | | ✓ |
| 5. *what* | | ✓ | |
| 6. Wh- in subordinate clause | | | ✓ |
| 5. *Yes/No* questions, including auxiliary and modal fronting | | ✓ | ✓ |
| 6. Tenses: present, past, present continuous, present perfect | | ✓ | ✓ |
| 7. Tense: past perfect | | | ✓ |
| 8. Relative clause with the relative pronoun *who* | | ✓ | ✓ |
| 9. *that* as relative clause marker | | ✓ | |
| 10. Co-ordinating sentences with *and* and *or* | | ✓ | ✓ |
| 11. Co-odinating phrases with *and* (not *but* or *or)* | | ✓ | ✓ |
| 12. *or* | | | |
| 13. Passive construction | | | ✓ |
| 14. Modal *can* | | ✓ | ✓ |
| 15. Modal *could* | | ✓ | ✓ |
| 16. Modal *must* | | | ✓ |
| 17. Modal *may* | | ✓ | |
| 18. Demonstrative | | ✓ | |
| 19. Non-finite verb group complement Type (1): *The best thing to do would be (for you) to tell everyone.* | | ✓ | ✓ |
| 20. Non-finite verb group complement Type (II): *All I did* | | | |

| L2 Language Schemes | Scheme 1 | Scheme 2 | Scheme 3 |
|---|---|---|---|
| *was (to) hit him* | | | |
| 21. Non-finite post modifier of NP (PP) | ✓ | | ✓ |
| 22. Phrasal NP postmodifier | | ✓ | |
| 23. Phrasal NP premodifier | | ✓ | |
| 24. Finite verb group complement | | | |
| 25. Finite adverbial with *before, then* | ✓ | ✓ | ✓ |
| 26. *when* | ✓ | | ✓ |
| 27. Comparative clauses *as big as/as fast as* | | ✓ | |
| 29. Subordinating conjunctions *before, then* | ✓ | ✓ | ✓ |
| 30. *because, where, when* | ✓ | ✓ | |
| 31. *when* | ✓ | ✓ | |
| 32. *then* | ✓ | ✓ | |
| 33. Discourse markers (COMP) *now, then* | ✓ | ✓ | ✓ |
| 34. Past perfect tense | | | ✓ |
| 35. *that* as relative clause marker | ✓ | ✓ | |
| 36. Ellipsis/substitution | ✓ | ✓ | ✓ |
| 37. Lists | ✓ | ✓ | |
| 38. Multiple embedding | ✓ | ✓ | ✓ |
| 39. Adverbial phrases (PP): Purpose | | | ✓ |
| 40: Time | ✓ | | ✓ |
| 41: Place | ✓ | ✓ | ✓ |
| 42: Manner | ✓ | ✓ | |
| 43. Present participle | ✓ | ✓ | |
| 44. Past participle | ✓ | ✓ | |
| 45. Asyndetic co-ordination | ✓ | ✓ | |
| 46. Possessive | | | ✓ |
| 47. Existential *there/it* | ✓ | ✓ | ✓ |
| 48. Conjunctions | but, some, other, what do you say when, we say that | when, behind | maybe, when, then |
| **TOTAL STRUCTURES** | 28 | 30 | 29 |

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### 3.1.5 Vocabulary

At this point some comments on vocabulary may be helpful. In the selection made for this scheme there are 137 lexemes (words that have the same basic meaning are excluded, for example, "walk"; "walking" is excluded). It was mentioned above that there were 390 words altogether, making the average length of sentences quite long.

This large range of words is a result of the topics that were chosen, which give a great deal of information. The list of words is not, however, very difficult, and as has been noted, there are very few cohesive elements. I would surmise that the following words would need specific decisions: "covered", "difficulty", "far-away", "journeys", "nobody", "other", "without".

After vocabulary list below (after the tree diagram), the Academic Language Functions are presented with the analysis of the three schemes; the first scheme, with which we are presently concerned, is highlighted.

### 3.1.6 Tree diagram
*They know when the winter is coming because they can feel that it is getting cold.*
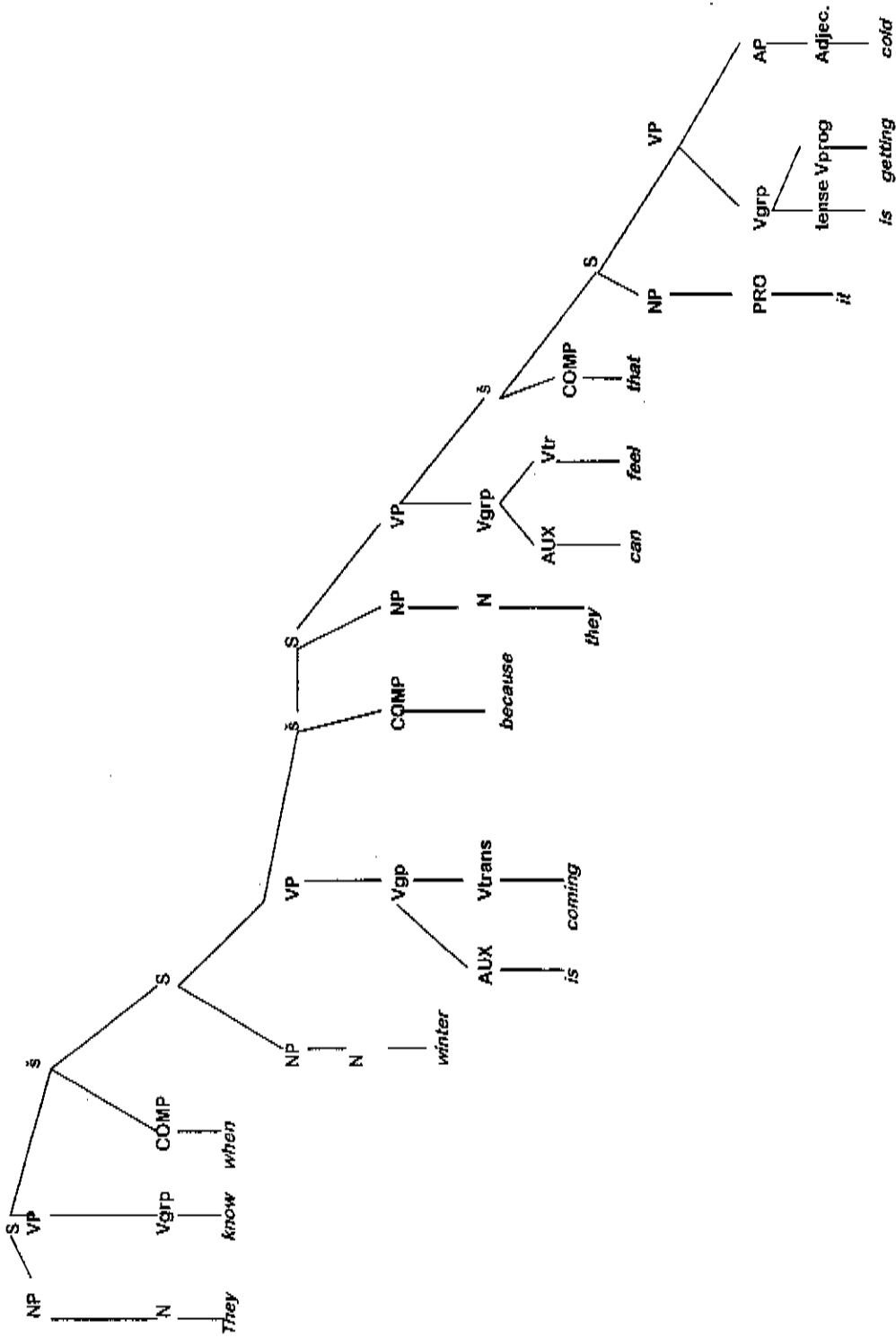
**Vocabulary**

| | | | | |
|---|---|---|---|---|
| a | each | journeys | rain | time |
| about | enough | knows | read | to |
| and | every | lands | really | up |
| are | eyelashes | legs | rest | very |
| at | eyes | like | rivers | wake |
| baby | far-away | litres | sand | walk |
| bears | feel | little | say | warm |
| because | few | live | shelters | water |
| birds | find | look | show | we |
| blows | fly | lot | sing | what |
| books | fold | many | sleep | when |
| bottles | follow | maps | snow | where |
| but | food | milk | some | wind |
| call | for | moon | spring | winter |
| camel | forty | mountains | stars | with |
| can | from | must | stories | without |
| cold | fur | need | summer | year |
| coming | get | night | sun | you |
| covered | go | no | talk | |
| cubs | ground | nobody | tell | |
| days | have | not | that | *134Lexems* |
| den | here | of | the | |
| desert | hibernate | on | their | |
| difficult | hot | or | there | |
| do | how | other | these | |
| don't | i.e. | people | they | |
| down | in | places | thick | |
| drinking | is | plants | think | |
| dry | it | protect | this | |

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### 3.1.7 Academic Language Functions

| Language | Student uses language to: | Examples | L1 RNCS | L2 RNCS | L2 1st scheme | L2 2nd scheme | L2 3rd scheme |
|---|---|---|---|---|---|---|---|
| 1. Following instructions | Read instructions to make or do something | Interpreting information while reading instructions | ✓ | ✓ | 28 | 48 | 48 |
| 2. Observing and comparing | Notice things that seem pertinent | Using senses as hand or watch something | ✓ | – | 11 | 13 | 12 |
| 3. Seek information | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, and how; to collect information in increasing competency | ✓ | – | 6 | 6 | 10 |
| 4. Measuring and estimating | Use measuring instruments and make a good guess | Use instruments to answer questions that require accurate information | – | ✓ | 6 | 6 | 10 |
| 5. Recording | Measure carefully | Write down, make notes, trace and sketch pictures, complete diagrams, fill in data in tables | ✓ | – | 2 | 1 | 0 |
| 6. Analyse | Separation of whole into parts | Tell parts or features of object or idea | ✓ | ✓ | 8 | 3 | 7 |
| 7. Compare | Analyse similarities and differences in objects or ideas | Indicate similarities and difference in important parts or features of objects or ideas, outline/ diagram/web. Indicate how A contrasts/compares with B | – | – | 9 | 3 | 2 |
| 8. Classify | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B, or how A and B go together but not C and D. Explain why things go together | – | – | 5 | 5 | 4 |
| 9. Interpreting information | Interpret information in different forms | Using texts, diaries, drawings, diagrams, models, tables and graphs | ✓ | ✓ | 11 | 3 | 18 |

| Language | Student uses language to: | Examples | L1 RNCS | L2 RNCS | L2 1st scheme | L2 2nd scheme | L2 3rd scheme |
|---|---|---|---|---|---|---|---|
| 9.1 Changing the form | Interpret different forms of information | Changing forms of information to express understanding | ✓ | ✓ | 9 | 4 | 8 |
| 9.2 Applying concepts | Know when to use concepts and how | Create useful ideas that summarise a number of experiences | ✓ | – | 6 | 3 | 5 |
| 9.3 Making inferences | Infer that which is beyond the obvious | Conclusions based on different sources of information | ✓ | – | 3 | 1 | 8 |
| 9.4 Seeing parts and stating relationships | Try different possibilities and find relations | Describe what has been done and how relationships have been determined | – | – | 1 | 0 | 1 |
| 10. Predict | Another form of interpretation; predict implications | Predict implications from actions or from stated text | ✓ | – | 3 | 4 | 9* |
| 11. Inform | Report, explain, or describe information or procedures | Retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow-charts, posters, diagrams, pie-charts & bar graphs | ✓ | – | 12 | 14 | 7 |
| 12. Hypothe-size | Hypothesize consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported | ✓ | – | 0 | 0 | 4 |
| 13. Justify | Give reasons for an action, a decision, or a point of view | Tell why A is important, why you selected A, or why you believe A | ✓ | – | 2 | 0 | 2 |
| 14. Persuade | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position | ✓ | – | 4 | 0 | 1 |
| 15. Solve problems | Determine solution using models and theories | Given stated problem, reach solution | ✓ | – | 1 | 0 | 0 |

| Language | Student uses language to: | Examples | L1 RNCS | L2 RNCS | L2 1st scheme | L2 2nd scheme | L2 3rd scheme |
|---|---|---|---|---|---|---|---|
| 16. Synthesize | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem | – | – |  | 0 | 0 |
| 17. Evaluate | Assess the worth of an object, opinion, or decision | Select or name criteria to evaluate, prioritise a list and explain, evaluate an object or proposition, indicate reasons for agreeing or disagreeing | ✓ | – |  | 0 | 2 |
| TOTAL Functions | Maximum=21 | | 12 | 5 | 20 | 15 | 18 |
| Total tokens | | | | | 130 | 114 | 158 |

Scheme 1 is well-represented in terms of Academic Language Functions. Hypotheses are not observed, perhaps because the criterion is set for a higher level rather than children simply explaining what they think.

### 3.1.8 Conclusion

This scheme is excellent in many ways. There are a variety of exercises of how to make things; there are exercises to teach vocabulary and grammar; there is a large variety of topics. One reason why this is such a good scheme might be that one of the authors for this scheme was taught – with a mentor – to write as for Scheme Three. This excellent training shows in this first scheme. Shortcomings might be the great variety of topics dealt with, and the fact that structures are not introduced in any way.

## 3.2 L2 Scheme Two

### 3.2.1 Introduction

In this chapter, the analysis of three L2 or FAL (First Additional language) schemes follows the theoretical model (see Chapter 1) that was developed for this research. It is a linguistic model. This section of the chapter relates to materials from the second of three schemes for L2 children who are learning through the medium of English.

The procedure for the analysis of all three schemes is as follows:

a.  A scanned page or two forms a focus point for the reader. Linguistic analyses are difficult and boring to read without a context.

b.  Then there is a short statement about the coherence of the course as a whole.

c.  A cohesion analysis of 30 sentences follows. It shows the text as well as the analysis. There is no claim that this cohesive analysis is exhaustive, and a slightly simplified analysis is offered.

d.  A tree diagram of one of the sentences is presented. This is generally a sentence that shows some interesting aspect of the sentences.

e.  Next, a list of the vocabulary in the 30-sentence selection is presented. This cannot be taken as evidence that one scheme has more vocabulary than another. For example, in the third scheme, I inadvertently chose a story that had the underlying structure of a Mathematics word problem, and so the vocabulary is restricted to one focus: finding sheep.

f.  At the end of the three analyses, a summary is given of the syntactic structures that were used in the extracts. This summary is largely derived from the findings of Van Rooyen in 1990, although a number of items were added.

Four scanned pictures are to be found on the next two pages.

Janey ran home as fast as she could. When she got to First Street, she stopped. "I'll cross the road here," she thought. She started walking, then stopped. She wasn't allowed to cross the road anywhere except at a robot or a pedestrian crossing. Her mother was very strict about this. Janey thought about it for a while. There wasn't much traffic on the road and she was very late.

She made up her mind and decided to cross the road where she was. She took a deep breath ... and ran! There was a loud screech of brakes and the sound of a hooter. Janey stopped running, closed her eyes and put her hands over her ears.

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The driver of the red car got out of his car. "What do you think you're doing?" he shouted. "You can't just stop like that in the middle of the road! Look at my car! It's ruined! You fool!"

"I stopped because this child ran in front of me!" shouted the driver of the green car. "I had to stop. You shouldn't have been driving so fast. It's your fault!"



CRASH! She opened her eyes. Oh, no! There was a big green car in the middle of the road. Behind the green car was a smaller, red car. The red car had crashed into the back of the green car.

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## 3.2.2 Coherence

This scheme does not have the same range of activities as the first scheme, being organised around the "Sithole Family". They are involved in many of the activities of the book, and there is a sweet story that runs through to the end of the book, where Siswe, who had been complaining bitterly about his scratchy jersey, that had come to grief, has a new and soft jersey knitted for him by his aunt. As in common with the other Learner's Books, there are no headings or labels for any of the pictures, although there is a heading at the top of each page.

This scheme has explicit phonics in the learner book, e.g. (p.17): "road", "boat", etc.; "saw", "paw"; "sound" and "ground". One would have expected that such vowel sounds would have been dealt with before Grade 3. Also, prepositions such as "in", "on" and "under" are taught, and unless this is revision, this also seems to be too simple.

As with Scheme One, there are plan views, preceding the reading of plan view maps, with a story woven into three pages of this, and two more plan views later.

There are sixteen written stories and seven cartoon stories. One might quite easily conclude that there are fewer CALP[2] exercises in this course than in Scheme One. The texts in one of the Readers include five running stories, a description of a process, two written letters, and a cartoon story. If the children are able to read all that is offered, there may be a trade off against the more orthodox learning tasks.

The Scheme Two also has a workbook, where most of the exercises are quite low level for learners to do autonomously, except for a map and a drawing exercise. There are also reading cards with questions on them, but they tend to be easier than the course itself.

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[2] Cognitive Academic Language Proficiency

## 3.2.3 Cohesion

As before, the cohesion is based on a story. Here we only have one story, where Janey decides to run across the road and causes an accident. The drivers shout at each other while she is obviously (very) mortified. A policeman arrives and the drivers shout at each other again.

### TEXT

Janey[1a][6a] ran home as fast as she[1b] could[Ø]. When she[1c] got to First street[2a], she[1d] stopped. I'll cross the road[2b][3a] here," she[1e] thought. She[1f] started walking[4a] then stopped[4b]. She[1g] wasn't allowed to cross the road[3b] anywhere except at a robot[5a] or a pedestrian[5b] crossing. Her[1h] mother was very strict about this[Ø]. Janey[6b] thought about it[5c] for a while. There wasn't much traffic[5c] on the road[5d] and she[1i] was very late. She[1j][6c] made up her[6b] mind and[Ø] decided to cross the road[5e] where she[1k] was. She[1l] took a deep breath[7a] and ran[7b]. There was a loud screech of brakes[8a] and the sound of a hooter[8b]. Janey[6d] stopped running[7c], closed her[6e] eyes, and put her[6f] hands over her[6g] ears. CRASH! She[1m] opened her[1n] eyes. Oh no! There was a big green car[9a] in the middle of the road[5f]. Behind the green car[9b] was a smaller, red car[10a]. The red car[10b] had crashed into the back of the green car[9c]. The driver[11a] of the red car[10b] got out of his car. "What do you[12a] think you are doing?", he[11b] shouted[14a]. "You[12b] can't just stop like that in the middle of the road[5g]. Look at my car[13a]. It's[13b] ruined. You[12c] fool!" "I[15a] stopped because this child[1m] ran in front of me", shouted[14b] the driver of the green car[9d]. I[15b] had to stop". You shouldn't have been driving so fast." "It's your[11b] fault." Janey[16h] stood still, looking at the two cars[13c] in front of her. A police car[16a] arrived. "What's happened?" asked the police officer[16b].

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The man[17a] in the red car[10c] started shouting[14b][15a]. The man[17b] in the green car[9c] shouted[14d] louder.

## *ANALYSIS*

1[a][b][c][d][e][f][g][h][1i][j][k][l][m][n] anaphoric reference
1[b]Ø ellipsis "ran home as fast as she could…" [run]
1[j][k] Ø anaphoric reference "she" "her" ellipsis "she"
2[a][b] lexical cohesion
3[a][b] lexical cohesion "here" "road"
4[a][b] lexical cohesion "started walking then stopped"
5[a][b] Ø [c][d][e][f][g] lexical cohesion "robot" "pedestrian crossing" ellipsis "mother was strict about this" "thought about it" "cross the road" "in the middle of the road" "middle of the road"
6[a][b][c][d][6] lexical reiteration "Janey"
6[d][e][f][g] anaphoric reference Janey, "she", "her"
7[a][b][c] lexical cohesion "deep breath" "ran" "running" "stopped running"
8[a][b] lexical cohesion "screech of brakes" "sound of a hooter"
9[a][b][c] lexical reiteration/cohesion "big green car", "green car"
10[a][b][c] lexical reiteration/cohesion "smaller, red car" "red car" "in the red car"
11[a][b] anaphoric reference "the driver" "he" "your"
12[a][b] lexical reiteration "you"
13[a][b] anaphoric reference "my car" "its"
13[a][b] lexical reference "car" "two cars"
14[a][b] lexical reiteration "shouted"
14[c][d] lexical cohesion "started shouting" "shouted louder"
15[a][b] lexical reiteration "I"
16[a][b] lexical cohesion "police car" "police officer"
17[a][17b] lexical reiteration "the man".
There are 23 instances of anaphoric reference, one of ellipsis, six instances of lexical cohesion and four of lexical reiteration. Given that this is a contained story (as opposed to the informational text in Scheme One), this seems to be a reasonable spread of types of cohesion.

## 3.2.4 Syntax

After the sub-section on syntactical structures, an example of a tree diagram of one of the sentences appears. These are the kinds of construction which appears in the extract.

| | |
|---|---|
| <u>and</u> joining clauses | past + progressive |
| <u>as fast as</u> (comparative) | past perfect tense |
| <u>because</u> + subordinate clause | there (existential) |
| <u>behind</u> conjunction | verb + non-finite verb complement |
| ellipsis | <u>when, what</u> |
| imperative | |

### 3.2.4.1 Summary of syntactic structures

The following are the structures found in the three L2 schemes. As can be seen, they are very simple, and following this summary, we can compare these with structures found in the L1 selections. Note: because the sampling was so small, some structures will have inevitably slipped through the net of the analysis. Nevertheless, there are more structures here than there were in Van Rooyen's (1990) analysis of Grades 2-4 analysis.

| Language Schemes | Scheme 1 | Scheme 2 | Scheme 3 |
|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ | | ✓ |
| 2. Commands, statements and denials | | | ✓ |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | | ✓ |
| 3a. *how many* | | | ✓ |
| 3b. *what* | | | |
| 3c Wh- in subordinate clause | ✓ | | ✓ |
| 4. *Yes/No* questions, including auxiliary and modal fronting | ✓ | | ✓ |
| 5. Tenses: present, past, present continuous , present perfect | ✓ | | ✓ |
| 5a. Tense: past perfect | | | ✓ |
| 6. Relative clause with the relative pronoun *who* | ✓ | | ✓ |
| 6a. *that* as relative clause marker | ✓ | | |
| 7. Co-ordinating sentences with *and* and *or* | ✓ | | ✓ |
| 8. Co-ordinating phrases with *and* (not *but* or *or*) | ✓ | | ✓ |
| 8a. *or* | ✓ | | |
| 9. Passive construction | | | ✓ |
| 10. Modal *can* | ✓ | | ✓ |
| 10a. Modal *could* | | | ✓ |
| 10b. Modal *must* | | | ✓ |
| 10c. Modal *may* | | | |
| 11. Demonstrative | | | |
| 12. Non-finite verb group complement, e.g. He will help you *to bring them back* | ✓ | | ✓ |
| 14. Non-finite post modifier of NP (PP) | ✓ | | ✓ |
| 14a. Phrasal NP postmodifier | | | |
| 14b. Phrasal NP premodifier | | | |
| 15. Finite verb group complement | ✓ | | |
| 15a. Nonfinite complement of verb group | ✓ | | |
| 16. Non-finite verb group complement, e.g. I am going *to eat.* | ✓ | | |
| 17. Finite adverbial with *before, then* | ✓ | | ✓ |
| 17a. *when* | ✓ | | ✓ |
| 19. Comparative clauses *as big as/as fast as* | ✓ | | |
| 20. Subordinating conjunctions *before, then* | ✓ | | ✓ |
| 20a. *because, where, when* | ✓ | | |
| 20b. *when* | ✓ | | |
| 20c. *then* | | | |
| 21. Discourse markers (COMP) *now, then* | ✓ | | ✓ |
| 22. Past perfect tense | | | ✓ |
| 23. *that* as relative clause marker | ✓ | | |
| 24. Ellipsis/substitution | ✓ | | ✓ |
| 25. Lists | | | |
| 26. Multiple embedding | ✓ | | ✓ |
| 27. Adverbial phrases (PP): Purpose | | | ✓ |
| 27a: Time | ✓ | | ✓ |

| | | | |
|---|---|---|---|
| 27b: Place | ✓ | | ✓ |
| 27c. Manner | ✓ | | |
| 28. Present participle | | | |
| 29. Past participle | ✓ | | |
| 30. Asyndetic co-ordination | | | |
| 31. Possessive | | | ✓ |
| 32. Demonstrative | | | |
| 33. Existential *there* | ✓ | | ✓ |

These seem to be appropriate to the story, but are much more wide-ranging than in the Learner's Book.


### 3.2.5 Vocabulary

A vocabulary list follows after the tree diagram. There are 125 lexemes in this story, which seems adequate since the story line is quite simple, and the part about the drivers is repetitive. It is possible, however, that the children wouldn't understand the whole story without some mediation by the teacher. (Please note that since we are using lexemes rather than words, we cannot simply divide 125/30, since that is an underprediction of words per sentence.)

The words which may prove a challenge to the children include: "decided", "except", "fault", "just", "mind", "ruined", "screech", "ruined", "shouldn't", "strict".

### 3.2.6 Tree diagram

*She made up her mind and decided to cross the road where she was.*
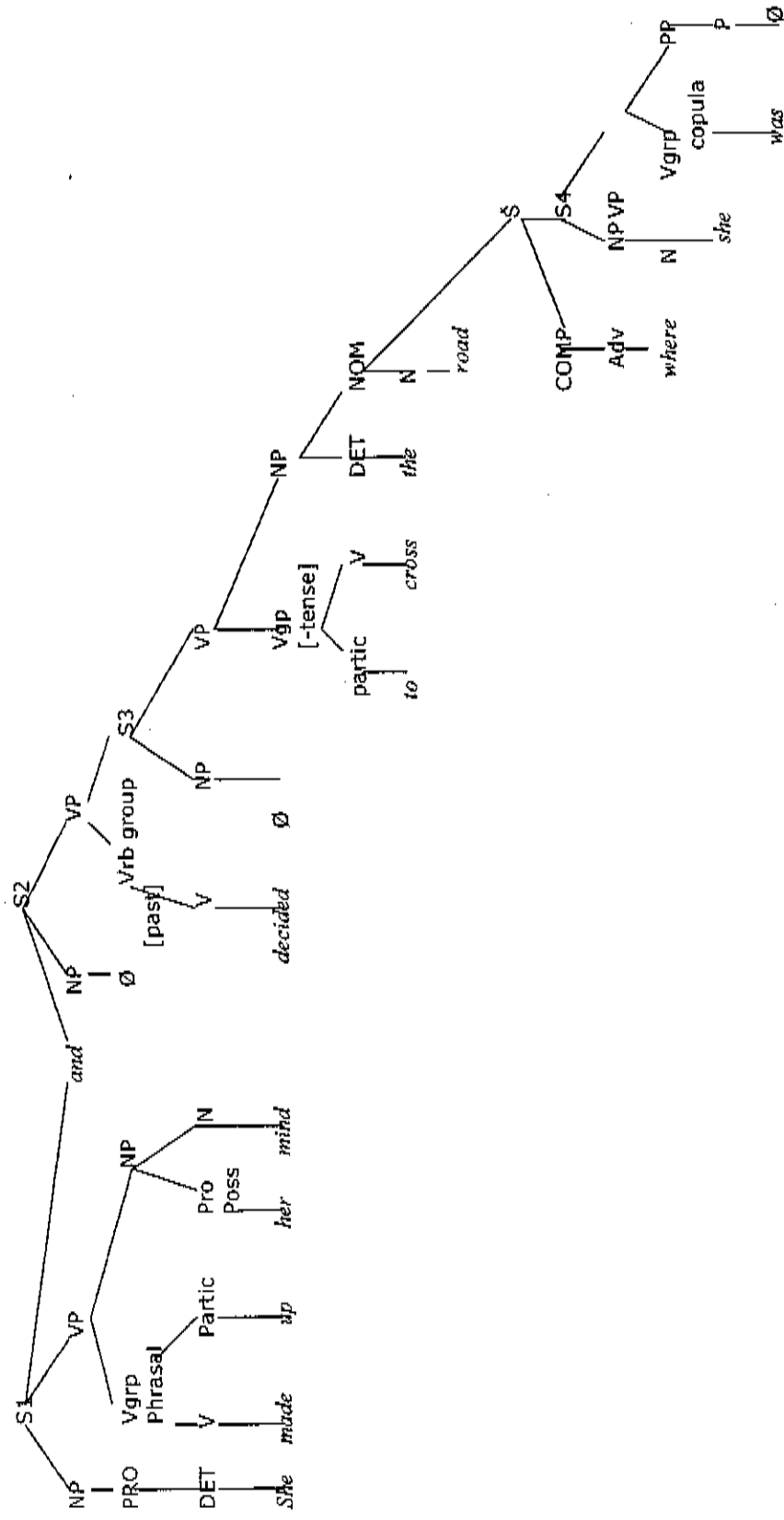
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**Vocabulary**

a
about
allowed
and
anywhere
are
arrived
as
asked
at
back
because
been
behind
big
brakes
breathe
can't
car
child
closed
could
CRASH!
cross
decided
deep
do
driver
driving
ears
except
eyes
fast
fault
first
fool
for
front
got
green
had

hands
happened
having
he'll
her
here
his
home
hooter
I
I'll
in
into
it
it's
Janey
just
late
like
look
loud
made
man
me
middle
mind
mother
much
my
no!
of
officer
on
opened
or
out
over
pedestrian
police
put
ran
red

road
robot
ruined
running
screech
she
shouldn't
shouted
smaller
so
sound
started
still
stood
stop
street
strict
that
the
then
there
think
this
thought
to
took
traffic
two
up
very
walking
was
wasn't
what
what's
when
where
while
you
your

*125 lexemes*

### 3.2.7 Conclusion

At face value Scheme One may seem to be superior to Scheme Two, because of the greater variety of tasks. However, when considering reading ability, it may be that Scheme Two children may be able to read better.

## 3.3 L2 Scheme Three

### 3.3.1 Introduction

The third L2 scheme is analysed in this section of the chapter. The first two schemes have each been analysed separately, so that comparisons can be made between the three schemes. The procedure for the analysis of all three schemes is the same, and is as follows:

a.    A scanned page or two forms a focus point for the reader. Linguistic analyses are difficult and boring to read without a context.

b.    Then there is a short statement about the coherence in the course as a whole.

c.    A cohesion analysis of 30 sentences follows. It shows the text as well as the analysis. There is no claim that this cohesive analysis is exhaustive, and a slightly simplified analysis is offered.

d.    A tree diagram of one of the sentences is presented. This is generally a sentence that shows some interesting aspect of the sentences.

e.    Next there is a list of the vocabulary in the 30-sentence selection presented. This cannot be taken as evidence that one scheme has more vocabulary than another. For example, in this third scheme, I inadvertently chose a story that had the underlying structure of a Mathematics word problem, and so the vocabulary is restricted to one focus: finding sheep.

f.    At the end of all three analyses, a summary is given of the syntactic structures that are used in the extracts. This summary is largely derived from the findings of Van Rooyen in 1990, although there are additional items.

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### 3.3.2 Structure of the scheme

Four scanned pictures are to be found overleaf.

It should be noted that this course, unlike the first two schemes, is printed on **inferior paper**, and includes **no** colour in the body of the Learner's Book. Some colour appears in the dictionary at the back. There are historical reasons for this, stemming from its history with a rather inferior publisher.

### 3.3.3 Coherence

This scheme is more difficult to assess than the first two because it contains rather more activities in the Teacher's Guide than there are in the Learner's Book, compared with the other two schemes. The Learner's Book has fourteen stories in it, and they are all longer than the stories in Schemes One and Two. In addition there are eleven stories in the Reader. This means that there are 68 pages (before the dictionary) as opposed to 90 or 110 pages. This may given a negative impression of the course, unless the Teacher's Guide is perused. However, the Learner's Book is well arranged, with the Learning Units and Activities numbered, and instructions for each activity.

The third last story from the Reader was selected for analysis. (The scanned pages appear overleaf.) This was because nearly the whole story fitted into 30 sentences. It will be noted that the verso page (as do all such pages before stories) gives some instructions to the reader. There are three steps to what the scheme calls the "shared book method of reading". These are given after the scanned in pages.

# The lost sheep and the brave dog

Farmer Memani is a sheep farmer. He has a hundred sheep on his farm but he has lost twenty of them. They have gone over the hill and they have not come back.

Farmer Memani calls to his son. "Xolo," he says, "I have lost some sheep. I think that they have gone over the hill. Have you seen them?" Xolo asks, "How many sheep have you lost, Father?" "I have lost twenty," says Mr Memani.

d.
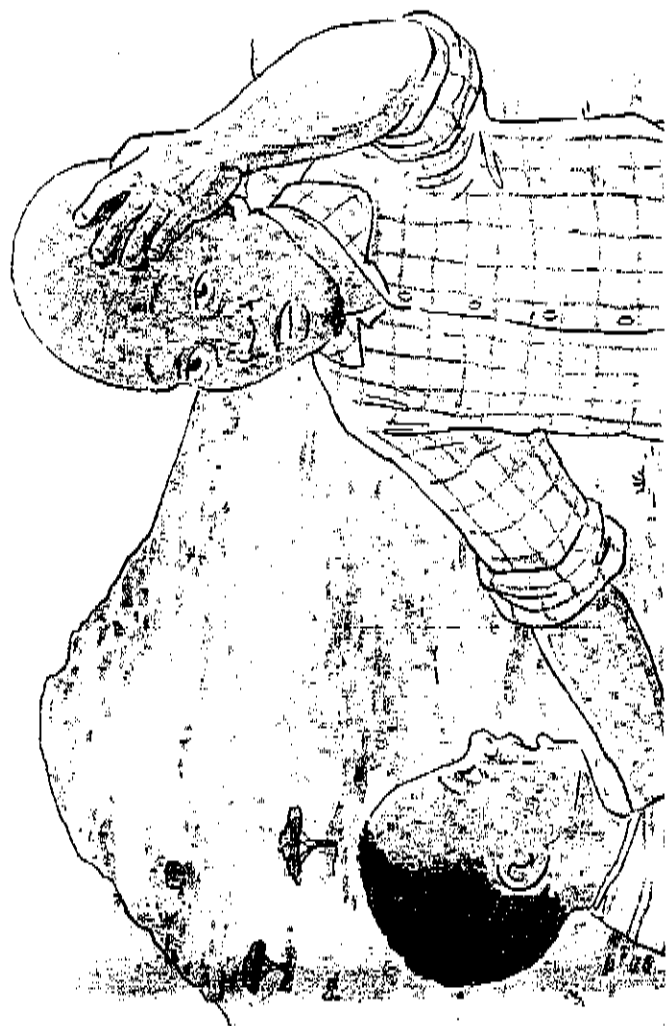
The title of this story is:

**The lost sheep and the brave dog**

e.

Read the title of this story and look at the picture below.

Why do you think farmer ⬚ ⬚ ⬚ is scratching his head?

Have you ever seen a sheep being sheared? What do we get from sheep? What do we make out of wool? Talk about sheep and sheep farming in class.

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Mr Memani is very worried because he had planned to sell ten sheep at the market. He says to Xolo, "Please go down to the river and see if the sheep are drinking water there. Take the sheepdog with you and if you find them, he will help you bring them back."

Xolo takes a stick and calls to the sheepdog walks down to the river.

Xolo has found only eight sheep. He puts them in the field and now there are ninety. There should be a hundred but ten of them are still lost.
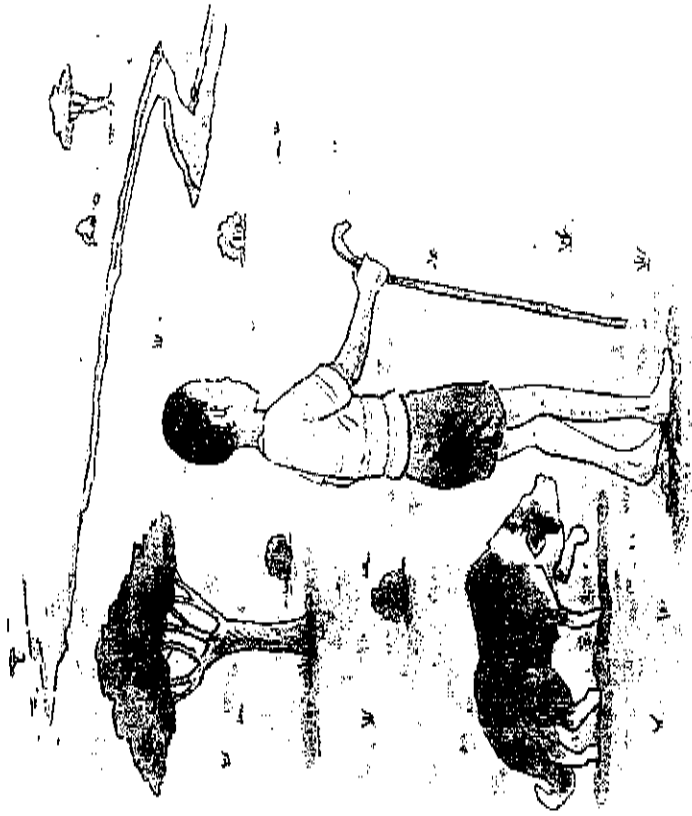
1. *Getting the mind of the learner ready.* Look at the title, and the pictures. Ask what do I know about this? What do I think the story is about? What will it tell me?

2. *Reading the story:* The teacher stops from time to time to explain words (not more than five). The teacher is the first one to read the story, and stops only to ask prediction questions. Then the learners read one at a time.

3. *Follow on activity:* The teacher guides the learners in an activity based on the story, for example, discussion, questions, dramatisation and drawing.

The reason why this has been spelled out in detail is because this is a trademark of the scheme, and is explicitly taught in training courses. In Scheme One there is no reference to any reading method; in Scheme Two, instructions, similar to those above, are included in 8pt text as part of a lesson instruction in the Teacher's Guide.

Also unlike Schemes One and Two, Scheme Three has not been revised in line with the policies of the NCS. Some of the material is ten years old, which does not of course mean that it is inadequate; this course was regarded as the most progressive and demanding of those on the market, until the schemes for the new Curriculum were produced. It was, for example, the first course to teach pre-map reading skills, including plan views and top views. There are six activities related to this. It was also the first to teach extensive reading. Grade 3 used to have 30 little graded readers, some of which have been incorporated into the current scheme.

In the lesson about the sheep, the teacher directs the pupils to think both about the numbers which are involved ($80+2+18-1=99$) but also about the feelings involved when one has lost something precious. Also, given the injunction to only explain five words, **lost, thief, stolen/steal, worried** and **footprints** are suggested. It is not clear whether this is a rule of thumb for adequate reading, but it seems sensible. A few comprehension questions are suggested, including: **What is the difference between a jackal and a sheepdog? Why do you think Xolo and his father called the sheep dog a** *brave dog?*

### 3.3.4 Cohesion

*TEXT*

Farmer M[1a] is a sheep farmer[2a]. He has a 100 sheep[3a] on his farm but he has lost[17a] 20 of them[3b]. They[3c] have gone over the hill and they[3d] have not come back. Farmer M[1b] calls his son. "Xolo"[16a], he says, "I have lost[17b] some sheep[3e][4a]". "I think they[4b] have gone over the hill[6a]. Have you seen them[4c]?"

Xolo[16b] asks: "How many[5a] sheep[3f] have you lost[17c], Father?"

"I have lost twenty[5b]" says Mr M[1b]. Xolo[16c] says that he[16d] saw two[3gØ] at the top of the hill[6b].

"I hope that a thief[7a] has not taken[10a] 18 of your sheep[3h]. I have heard from Mr N[8a] that a thief[7b] has stolen[10b] fifty of his[8b] chickens."

Mr M[8b][9a] is worried. He[9b] hopes that his[9c] sheep[3i] have not been stolen[10c]. He[9c] says to Xolo[16d], "I[9d] will go up the hill[6c] and fetch the two sheep[3j] that you have seen there[6d]. Please go over the hill[6e] to the maize farmer."

When Mr M[8c] comes back to the farm[10a] with his[8d] two sheep[3k], he puts them in a field[10b] with the others. He[8e] shuts the gate[10c] so that the 88 sheep[3l] he[8f] has left cannot get out of the field[10d][11a].

Then he[8g] sees X[16e] coming back with some sheep[3m]. He[8h] shouts, "How many sheep[3n][5c] have you found?" Xolo[16f] has only eight sheep[3o]. He[8i] puts them in the field[11a] and now there are 90. There should be a hundred[3Ø] but ten of them are still lost[12b].

Mr M[8j] is worried because he[8k] had planned to sell[17a] ten sheep[3p] at the market[17b]. He[8l] says to X, "Please go down to the river[10d][13a] and see if the sheep[3q] are drinking water there[13b]. Take the sheepdog[15a] with you[14a] and if you[14b] find them[3r], he[15b] will help bring them[3s] back."

## ANALYSIS

1[a][b][c][d][e][f][g] lexical reiteration "Farmer/Mr M"
2[a]3[a] lexical cohesion "sheep farmer" "sheep"
3[a][b][c][d][e][f][g][h][i][j][k][l][m][n][o][ Ø][p][q][r] anaphoric reference "sheep" "they", and one example of ellipsis
3[f][Ø] ellipsis "sheep" "I have lost twenty Ø"
4[a][b][c] anaphoric reference "sheep" "they" 'them"
5[a] [b] lexical cohesion "how many have you lost?" "I have lost 20."
6[a][b][c][d][e][f][g][h] lexical cohesion "over the hill" "at the top of the hill" "up the hill" "seen there" "go over the hill" "back to the farm" "in the field" "shuts the gate" "out of the field"
7[a][b] lexical reiteration "thief"
8[a][b][c][d][e][f][g][h][i] anaphoric reference "Mr M" "his"
9[a][b][c] anaphoric reference "Mr M" "he" "his"
10[a][b] lexical cohesion "not taken" "stolen"
11 [a] *et passim* continuation of 3
12[a][b] lexical cohesion "have you found" "are still lost"
13[a][b] lexical cohesion "to the river" "drinking water there"
14[a][b] lexical reiteration "you"
15[a][b] anaphoric reference "the sheepdog" "he"
16[a][b][c][d][e][f][g][h] lexical reiteration "Xolo" including 3 examples of anaphoric reference
17[a] lexical cohesion "lost" "lost".

Note: In this analysis the referent "sheep" is treated as one and the same, but in fact this is not the case – there are those present, first found, second found, those worried about, and so on. To separate this out would have complicated this analysis unnecessarily, but this needs to be noted.

In this story, lexical reiteration occurs ten times, lexical cohesion nine times, anaphoric reference nine times and ellipsis once. This is a good spread of devices, considering that the story-line is tight and fairly repetitive. The fact that there is only one instance of ellipsis may be explained by the fact that this scheme avoids constructions not found in black languages.

### 3.3.5 Syntax

Note: An example of a sentence analysed as a tree diagram occurs on the following page.

The syntax of this story is somewhat simpler than the extracts in the first two schemes. This is a function of the narrow plot of the story – lost sheep – as opposed, for example, birds migrating, and camels and bears in the first extract. The author is well-versed in the principles of writing for this scheme. It is not "impoverished text"[3], as the following quick look at structures will show.

and linking clauses
because + subordinate clause
finite verb + non-finite complement
past + progressive verb form
should (modal)
when, will, what

as fast as (comparison)
ellipsis
imperative
past perfect tense
there (existential)

The summary of structures appears after the tree diagram.

---

[3] This means that it approximates regular text, as opposed to, for example, the burning house example in Scheme One.

## 3.3.5.1 Tree diagram

*Take the sheepdog with you and if you find them, he will help bring them back.*



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### 3.3.5.2 Summary of structures

The following are the structures found in the three L2 schemes. As can be seen, they are very simple, and later can be compared with the structures found in the L1 examples. Note: because the sampling was so small, some structures will have inevitably slipped through the net of the analysis. Nevertheless, there are more structures here than there were in Van Rooyen's (1990) analysis of Grades 2-4.

| Language Schemes | Scheme 1 | Scheme 2 | Scheme 3 |
|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ | ✓ | |
| 2. Commands, statements and denials | | ✓ | |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | ✓ | |
| 3a. *how many* | | | |
| 3b. *what* | | ✓ | |
| 3c. Wh- in subordinate clause | ✓ | | |
| 4. *Yes/No* questions, including auxiliary and modal fronting | ✓ | ✓ | |
| 5. Tenses: present, past, present continuous, present perfect | ✓ | ✓ | |
| 5a. Tense: past perfect | | | |
| 6. Relative clause with the relative pronoun *who* | ✓ | ✓ | |
| 6a. *that* as relative clause marker | ✓ | ✓ | |
| 7. Co-ordinating sentences with *and* and *or* | ✓ | ✓ | |
| 8. Co-odinating phrases with *and* (not *but* or *or*) | ✓ | ✓ | |
| 8a. *or* | ✓ | | |
| 9. Passive construction | | | |
| 10. Modal *can* | ✓ | ✓ | |
| 10a. Modal *could* | | ✓ | |
| 10b. Modal *must* | | | |
| 10c. Modal *may* | | ✓ | |
| 11. Demonstrative | | ✓ | |
| 12. Non-finite verb group complement, e.g. He will help you *to bring them back* | ✓ | ✓ | |
| 14. Non-finite post modifier of NP (PP) | ✓ | | |
| 14a. Phrasal NP postmodifier | | ✓ | |
| 14b. Phrasal NP premodifier | | ✓ | |
| 15. Finite verb group complement | ✓ | | |
| 15a. Non-finite complement of verb-group | ✓ | ✓ | |
| 16. Non-finite verb group complement, e.g. I am going *to eat.* | ✓ | ✓ | |
| 17. Finite adverbial with *before, then* | ✓ | ✓ | |
| 17a. *when* | ✓ | | |
| 19. Comparative clauses *as big as/as fast as* | ✓ | ✓ | |
| 20. Subordinating conjunctions *before, then* | ✓ | ✓ | |
| 20a. *because, where, when* | ✓ | ✓ | |
| 20b. *when* | | ✓ | |
| 20c. *then* | | ✓ | |
| 21. Discourse markers (COMP) *now, then* | ✓ | ✓ | |
| 22. Past perfect tense | | | |
| 23. *that* as relative clause marker | ✓ | ✓ | |
| 24. Ellipsis/substitution | ✓ | ✓ | |
| 25. Lists | | ✓ | |
| 26. Multiple embedding | ✓ | ✓ | |
| 27. Adverbial phrases (PP): Purpose | | | |

| | | | |
|---|:---:|:---:|:---:|
| 27a: Time | ✓ | | ✓ |
| 27b: Place | ✓ | ✓ | |
| 27c: Manner | ✓ | ✓ | |
| 28. Present participle | | ✓ | |
| 29. Past participle | ✓ | ✓ | |
| 30. Asyndetic co-ordination | | ✓ | |
| 31. Possessive | | | |
| 32. Demonstrative | | ✓ | |
| 33. Existential *there* | ✓ | ✓ | |
| 34. *And* as sentence initial | | | |
| 35. NP in apposition | | | |
| 36. Transposed clause/phrase | ✓ | | |
| 37. Range of conjunctions. | *then, but, now, if* | *but* | |
| **TOTAL NUMBER OF STRUCTURES REPRESENTED** | 28 | 25 | 19 |

The third scheme has the smallest range of structures represented. There are two observations to make here. First, this scheme is using a very careful introduction of vocabulary and structures. Also, this is a historical fact, it may be that these children are better able to handle the structures they know than other children exposed to a greater number. This is a matter for empirical research.

## 3.3.6 Vocabulary

| | | | |
|---|---|---|---|
| a | for | Mr Memani | take |
| and | from | not | ten |
| are | gate | now | that |
| asks | get | of | the |
| at | gone | on | them |
| back | ground | only | then |
| bank | had | others | there |
| be | have | out | they |
| because | he | over | thief |
| been | heard | planned | think |
| bring | help | please | to |
| but | hill | puts | top |
| calls | his | river | twenty |
| cannot | hope | saw | two |
| chickens | how | see | up |
| coming | hundred | sell | water |
| down | 1 | sheep | when |
| drinking | if | sheepdog | with |
| eight | in | should | worried |
| farm | is | shouts | Xolo |
| father | left | shuts | your |
| fetch | looking | so | |
| field | lost | some | |
| fifty | maize | son | *98 lexemes* |
| find | many | still | |
| footprints | market | stolen | |

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These words would seem to be appropriate to the level of the story, with not too many little-used words.

There are two appendices in the Teacher's Guide. The first is about dictionary work, and the second, more interestingly, is about pronunciation. This includes the following headings:

*The difference between long and short vowels*
*Loud vowels and soft vowels*
*Stress loudness in the sentence*
*Problems with the spelling*
*How do we teach English spelling*
*Quick check review of twenty English vowels.*

This was written by the original author of the scheme, and was the phonics section in the Grade 2 Teacher's Guide. These concepts have a strong linguistic base.

Scheme Three may be of concern to people who would wish to de-emphasise phonics. All three schemes have phonics in them, since it is part of the revised Curriculum. However, Grade 2 of this third scheme, which was originally the beginning of the series (Grade 1 English not being taught as DET-policy) is based almost entirely on phonics. To illustrate the different visual effect, I am including a page from Scheme Three Grade 2, including hens and eggs, and then a page from Scheme Two, part of a story about The Ugly Duckling. They appear at the end of this chapter.

### 3.3.7 Academic Language Functions

| Language | Student uses language to: | Examples | L1 NCS | L2 NCS | L2 1st scheme | L2 2nd scheme | L2 3rd scheme |
|---|---|---|---|---|---|---|---|
| 1. Following instructions | Read instructions to make or do something | Interpreting information while reading instructions | ✓ | ✓ | 28 | 48 | 48 |
| 2. Observing and comparing | Notice things that seem pertinent | Using senses at hand or watch something | ✓ | – | 11 | 13 | 12 |
| 3. Seek information | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, and how, to collect information in increasing competency | ✓ | – | 6 | 6 | 10 |
| 4. Measuring and estimating | Use measuring instruments and make good guess | Use instruments to answer questions that require accurate information | – | ✓ | 6 | 6 | 10 |
| 5. Recording | Measure carefully | Write down, make notes, trace and sketch pictures, complete diagrams, fill in data in tables | ✓ | – | 2 | 1 | 0 |
| 6. Analyse | Separate whole into parts | Tells parts or features of object or idea | ✓ | ✓ | 8 | 3 | 7 |
| 7. Compare | Analyse similarities and differences in objects or ideas | Indicate similarities and difference in important parts or features of objects or ideas, outline/ diagram/web. Indicate how A contrasts/compares with B | – | – | 9 | 3 | 2 |

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| Language | Student uses language to: | Examples | L1 NCS | L2 NCS | L2 1st scheme | L2 2nd scheme | L2 3rd scheme |
|---|---|---|---|---|---|---|---|
| 8. Classify | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B, or how A and B go together but not C and D. Explain why things go together | – | – | 5 | 5 | 4 |
| 9. Interpreting information | Interpret information in different forms | Using texts, diaries, drawings, diagrams, models, tables and graphs | ✓ | ✓ | 11 | 3 | 18 |
| 9.1 Changing the form | Interpret different forms of information | Changing forms of information to express understanding | ✓ | ✓ | 9 | 4 | 8 |
| 9.2 Applying concepts | Know when to use concepts and how | Create useful ideas that summarise a number of experiences | ✓ | – | 6 | 3 | 5 |
| 9.3 Making inferences | Infer that which is beyond the obvious | Conclusions based on different sources of information | ✓ | – | 3 | 1 | 8 |
| 9.4 Seeing parts and stating relationships | Try different possibilities and find relations | Describe what has been done and how relationships have been determined | – | – | 1 | 0 | 1 |
| 10. Predict | Another form of interpretation; predict implications | Predict implications from actions or from stated text | ✓ | – | 3 | 4 | 9* |
| 11. Inform | Report, explain, or describe information or procedures | Retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow-charts, | ✓ | – | 12 | 14 | 7 |

| Language | Student uses language to: | Examples | L1 NCS | L2 NCS | L2 1st scheme | L2 2nd scheme | L2 3rd scheme |
|---|---|---|---|---|---|---|---|
| | | posters, diagrams, pie-charts & bar graphs | | | | | |
| 12.Hypothesize | Hypothesize consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported | ✓ | – | 0 | 0 | 4 |
| 13. Justify | Give reasons for an action, a decision, or a point of view | Tell why A is important, why you selected A, or why you believe A | ✓ | – | 2 | 0 | 2 |
| 14. Persuade | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position | ✓ | – | 4 | 0 | 1 |
| 15. Solve problems | Determine solution using models and theories | Given stated problem, reach solution | ✓ | – | 1 | 0 | 0 |
| 16. Synthesize | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem | – | – | 1 | 0 | 0 |
| 17. Evaluate | Assess the worth of an object, opinion or decision | Select or name criteria to evaluate, prioritize a list and explain, evaluate an object or proposition, indicate reasons for agreeing or disagreeing | ✓ | – | 2 | 0 | 2 |
| TOTAL | | | | | 130 | 114 | 158 |

The phonic reading occurs near the end of the course, and forms part of a repetitive cycle of learning to sound out the spelling, recognizing the word, doing word-picture matching and then guided writing and reading. In Scheme Three this story occurs under the first theme "Who am I?" This story has a related exercise in the workbook – matching words and pictures (while the side frames are the alphabet in upper and lower case). My supposition is that the children would not be able to read such text as early as Grade 2 (see Appendix), but it has to be admitted that the look of the page is extremely attractive.
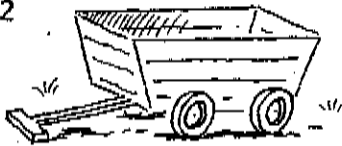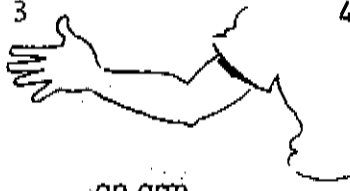
Although Scheme Three is not an aesthetic course, it has undergone a number of positive evaluations. The highly repetitive structures allow the children to work and revise autonomously, where in the first two schemes teacher mediation would be imperative for every lesson. While the phonics may be seen as an overkill, the children come out with a reasonable accent. What is needed is empirical research on Schemes One and Two.

It may be surmised that children are actually not reading very well by Grade 3, and research needs to be conducted on children's competency. Certainly Schemes One and Two do not give teachers a method for teaching reading, and much of the early work in Grades 1 and 2 is clearly too difficult, as it is not systematically built up. The Appendix, which is attached to the L2 descriptions in Chapter 6, Summary of Conclusions, shows good reason why we should not be too optimistic about learners' performance.

## APPENDIX I: from Scheme 3
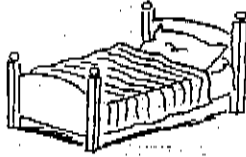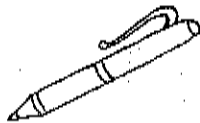
### Letters and sounds
Sound out the words. Read the word for the picture.

**a**

1
a car

2
a cart

3
an arm

4
a farm

**e**

1
a bed

2
eggs

3
a hen

4
a pen

5
men

6
a leg

7
a nest

5

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# The ugly duckling

**A** Look at the pictures quickly. What do you think the story is about? Talk about the pictures.

**B** Read the sentences and talk about the story.



Mother Duck was waiting for the last egg to hatch. The last duckling looked different. She was ugly.



All the little ducklings swam after Mother Duck. They swam in a row. The ugly duckling was last.



They swam in a row every day. The ugly duckling was always last.

8

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# CHAPTER 4: LIFE SKILLS

## 4.1 LS Text One

### 4.1.1 Introduction

In this fourth chapter we look at Life Skills (LS). The main purpose of doing this is to examine the language structures, and then to take this a step further and see how these texts compare with L1 and L2 texts as regards their degree of difficulty. Three texts are examined here. One of the L2 Scheme publishers has also published several LS texts, and two of them are covered in this chapter.

This first section is about LS Text One, a companion book to the first L2 scheme.

The first thing to mention is that because language texts are supposed to be cross-curricular, as would also be expected of Life Skills, we can anticipate that there might be an overlap of topics. However, Life Skills texts will not have lessons devoted simply to language structures/functions. All the LS texts have Teacher's Guides/Books. It is therefore possible to determine whether "wysiwyg" applies (what you see is what you get).

In fact this is not the case with LS Text One. Look for a moment at the explicit list of topics (units ) and subtopics (lessons) for Grade 3:

**I like:** What animals like; Things I like to do; When I grow up; Cool or Fresh.
**Special People:** Who would you like to meet? Talking or fighting? Nkosi Johnson; Keeping healthy.
**Animals from Long Ago:** What's old, what's new; Flying dinosaurs; Who lived when?
**Transport:** Different types of transport; Daily timetable; Flying Machines; Make a paper jet.
**My Country:** All about South Africa; Land use in South Africa; Teamwork.

**Fire**—Fire-fighters; Energy from the Sun; Heat and light energy from the Sun; Safety and fire.

**People at Work**—What work do people do? Woman of the Year; Communication Tools.

**Making Things**—What shall we make with boxes? Designing our construction; How telephones work; Making musical instruments.

**How we get there**—Cape Town map; Amazing mazes; Tiki Tokoloshe of Babanago; From South to North.

**Animal Shelters**—Where do animals live? Birds' nests; Sea homes; Camouflage.

**People are Different**—What do we all wear? People eat different food; Where do we live?

**Water**—Water is helpful in our lives; What lives in the ocean? We all need water to live; Water World fun.

**Time**—Measuring time; Different nature clocks; What's in a year; The Olympic Games.

**Save my World**—Don't waste; Let's all live together; Caring about people; Mama Earth.

**All Sorts**—What we need to live; Choose what you buy; Make a cardboard crown; South African things.

The interesting thing is that the L2 Grade 3 parallel text has the same list of units, but the contents/lessons of these units are obviously different. Let us have a look at **I Like.** In the Life Skills book versus the Language books the following subtopics are:

| L2 Life Skills Course: I Like | L2 Language Course: I Like |
|---|---|
| My favourite things | My classroom |
| Can you guess what your friends like? | Making things |
| I like books | Having fun together |
| I like animals | Let's compare |
| What animals like | Thinking and reasoning |
| Things I like to do | Getting on with others |
| When I grow up | In the classroom |
| Cool or Fresh? | Who likes what? |
| Advertisements | Write about your partner |
| Favourite Colours | At home and at school |

It would be pernickety to go through each unit, but it must be said that while having the same unit topics, the lessons are very different. What are the implications here? The titles are either similar or tangential. One might be tempted to say that giving the same names to the units is actually slightly conniving.

The first thing which must be said is that these Life Skills topics actually do cover topics from across the Curriculum, but a look at the Teacher's Guide Table of Contents reveals that these lesson titles constitute only about one-third of what the children are intended to do. So, it is likely that *this* text is far too big to be completed in a year. There are 150 lessons all told. Each lesson is supposed to take one period (the Life Skills Learning Programme is allocated 25% of the school day), but looking at them, the lessons would seem to be more worthwhile spending longer on.

The other thing that provides a challenge is to keep lessons strictly on the "topic". For instance, the lesson that was analysed here is "Time": The Olympic Games. There were a few sentences introduced about time, "People have played sport and games for a very long time. In many sports, time is important", which were rather trite compared to the rest of the description of the Olympic Games. Granted it may be difficult to keep exactly to the unit topic, but here for example, changing habits of people over time could have been explored.

With an eye to what is coming in Grade 4, probably the weakest area is in Science and Technology. Making a paper airplane and making things out of boxes don't even constitute the beginning of these Learning Areas. Perhaps we would need to have authors from these learning areas to give advice on this important area.

The text of the two pages that we analysed may be seen two pages further on.

## 4.1.2 Coherence

The first lesson has coherence apart from the aberrations sentences inserted to justify it. Propositions follow from the previous ones. Paragraphs have explicitly stated, salient, main idea formulations. However, the readers are not reminded to use visual material to comprehend the text better.

The last task for the children to complete on "Time" may be difficult, however. They may only have experiences of being a winner in a race, or the use of a stop watch. The very interesting electronic time keeping, for example in swimming (e.g. 50.125 seconds versus 50.203 seconds), would not be familiar to children unless they had experience of it, on the television for example. Time for horse-jumping competitions would also be an experience-far concept. I am not sure whether there is a unique source for the use of time in sport. I have Googled for this and have not come up with anything.

The pages that were analysed follow.

2.



## The Olympic Games

People have played sport and games for a very long time. In many sports, time is important.

Over 2 000 years ago the Greeks started the Olympic Games.



Only people from Greece took part in the Olympic Games. They had a stadium. They had chariot races, running and other sports. The people who made the fastest time won.

For hundreds of years there were no Olympic Games. Then about 100 years ago, the Olympic Games were started again. But this time the whole world could take part.
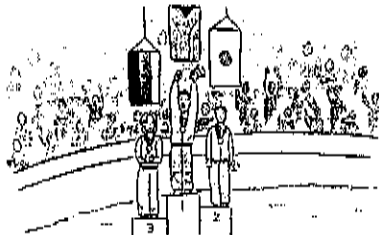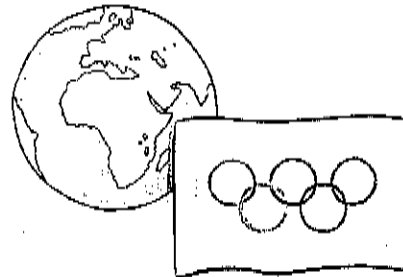


Now we have the Olympic Games every four years, in a different country each time. Many countries take part, and many sports take place at the Olympics.

1. Find out when the last Olympic Games were held.
2. Find out when the next Olympic Games will be held.
3. Make a list of Olympic sports with your partner.
4. Draw the Olympic flag.
5. Talk about how we use time in different sports.

## 14: Save my world

### Don't waste
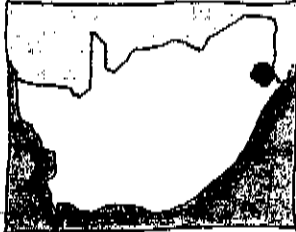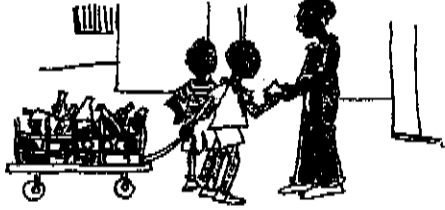
Imagine what would happen if we all threw our waste into a big pile. A lot of what we throw away we can use again. We call this recycling waste. Here is one recycling project.

> Recycling means to use again.

Ngwenya Glass          Phone no: (09268) 442-4053

| | |
|---|---|
| Ngwenya glass recycling started in Swaziland. | Children collect used glass from everywhere. |
| They sell them to the Ngwenya glass factory. | The glass is melted and made into beautiful things. |

1. Why is it good to recycle?
2. Do research with a partner and find out all about the Collect-a-can Project. Write about it and draw pictures to show how it operates.
3. Find out about how paper and glass can be recycled near your school. You and your friends can be helpful and make some money at the same time.

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The second lesson analysed is about recycling. It has far less text than the Olympics Games page, so there is not a great deal to say about coherence. The brief description of Swazi Ngwenya Glass makes sense, as well as giving the telephone number in Swaziland. However, the children don't get any help on the Collect-a-Can-Project. Perhaps this is something that is available for all schools, in which case this objection is invalid.

## 4.1.3 Cohesion

*TEXT*

People[1a] have played sport and games[5a] for a very long time[3]. In many sports, time is important[4a].

Over 2 000 years ago[3b] the Greeks[1b] started the Olympic Games[2a].

Only people from Greece[1c] took part in the Olympic Games[2b]. They[1d] had a stadium. They[1e] had chariot races, running and other sports[5b]. The people who made the fastest time won[4b].

For hundreds of years[3c] there were no Olympic Games[2c]. Then about 100 years ago[3d], the Olympic Games[2d] were started again. But this time[3e] the whole world[6c] could take part[9a].

Now[3f] we have the Olympic Games[2e] every four years[3g], in a different country[6a] each time[3h]. Many[7a] countries[6b] take part[9b], and many sports take place at the Olympics[2f].

Find out[10a] when the last Olympic Games[2g] were held.

Find out[10b] when the next Olympic Games[2h] will be held.

Make a list[12a] of Olympic sports[11a] with your[13] partner.

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Draw[12b] the Olympic flag[11b].

Talk[12c] about how we use time[4c] in different sports[11c].

*ANALYSIS*

1[a][b] Anaphoric reference, supcrordinate "people" "Greeks"
1[b][c] Lexical cohesion "Greeks" "people from Greece"
1[c][d] Anaphoric reference "people from Greece "they"
1[c][e] Anaphoric reference "hundreds of years" "this time"
2[a][b][c][d][e][f][g][h] Lexical reiteration "Olympic Games"
3[a][b] Lexical cohesion "a very long time" "over 2 000 years ago"
3[b][c] Lexical cohesion "sport and games" "chariot races"
3[c][d] Lexical cohesion "for hundred of years" "about 100 years ago"
3[d][e] Anaphoric reference "about a hundred years ago" "this time"
3[f][g] Lexical cohesion "now" "every four years"
3[g][h] Anaphoric reference "every four years" "each time"
4[a][b] Lexical cohesion "time is important" "fastest time won"
5[a][b] Lexical cohesion, superordinate "sport and games" " chariots and races, running and other sports"
6[a][b] Lexical cohesion/lexical reiteration "different countries "many countries"
6[b][c] Lexical cohesion "many countries" "whole world"
7[a][b] Lexical reiteration/parallelism "many countries" "many sports"
8[a][b] Anaphoric reference "Project" "write about it"
9[a][b] Lexical reiteration "take part"
10[a][b] Lexical parallelism "find out"
11[a][b] Lexical cohesion "Olympic sports" "Olympic flag"
[12][a][b][c] ] Lexical cohesion "make" "draw' "talk about"
[13] Exophoric reference "you".
Collocation:
     "sports" "games"
     "games" "stadium"
     "chariot races" "running" "sports"
     "last" " were held"
     "next" "will bc held"

## Save my World: Don't Waste

*TEXT*

Imagine what would happen if we[1a] threw all our waste[7a] into a big pile. A lot of what[7b] we[1b] throw away[2a] we[1c] can use again.

We[1c] call this[2c] recycling waste[6a][2d]. Here is one recycling[6b] project[14a].

Recycling[6c] means to use again[6d].

Ngweya glass[3a][14b] recycling[6d] started in Swaziland. Children[4a] collect[5a] used glass[3b] from everywhere. They[4b] sell[5b] them[3e] to the Ngwenya glass[3c] factory.

The glass[3d] is melted and made into beautiful things[10a].

Why is it good to recycle?

Do research[11a] with a partner[15a] and find out[9a][11b] all about the Collect-a–can Project[8a]. Write about[11c] it and draw pictures to show[9b] how it[8c] operates[10b].

Find out[11b] about how paper and glass[13a] can be recycled near your school. You[12a] and your friends[12b] can be helpful[13b] and make some money at the same time[15b].

*ANALYSIS*

1[a][b][c][d] Lexical reiteration/common reference: "we"
2[a][b] Lexical cohesion: "throw away" "use again"
2[b][c] Anaphoric reference: "use again" "this"
2[d][e] Lexical cohesion: "recycling waste" "recycling means to use again"
3[a][b][c][d] lexical reiteration: "glass"
4[a][b] Anaphoric reference: "children" "they"
5[a][b] Lexical cohesion: "collect", "sell"
6[a][b][c][d] Lexical reiteration: "recycling"
7[a][b] Lexical cohesion: "all our waste" "a lots of what we throw away"
8[a][b] Anaphoric reference: "used glass" "them"
9[a][b] Lexical cohesion: "find out about" "show"
10[a][b] Lexical cohesion: "made into beautiful things" "operates"
11[a][b][c] Lexical cohesion: "do research" "find out" "write about"

12[a][b] Exophoric reference: "you" "your friends"
13[a][b] Lexical cohesion: "how paper and glass ... school" "be helpful at the same time"
14[a][b] Lexical cohesion, superordinate: "one recycling project" "Ngwenya glass"
15[a][b] Lexical cohesion: "partner" "friends"'
Collocation:
       "waste" "pile"
       "throw away" "use again"
       "using again" "recycling"
       "collect" "sell"
       "glass" "melted".

The two texts reveal slightly different profiles – 32 instances versus 18 instances. There is more lexical reiteration in the Olympic Games (OG) passage, but that was largely due to the name of the Games. The OG passage had a high degree of lexical cohesion, which is a function of a total focus on one thing without really changing topic. However there was relatively little anaphoric reference. The second passage had a relatively high degree of lexical reiteration, but slightly more lexical cohesion. Lexical cohesion does indicate that a topic is being developed. So we could conclude that these two extracts/lessons are adequately cohesive.

Here is a summary of the two texts combined for comparison with the other Life Skills texts at the end of the third LS text:

| Anaphoric Reference | Lexical Cohesion | Lexical Reiteration | Collocation | Exophoric Reference |
|---|---|---|---|---|
| 8 | 22 | 14 | 12 | 2 |

## 4.1.4 Syntax

The tree diagram for a sentence may be seen on the next page. Following this is the summary of syntactic structures for this text in comparison with the other two LS texts.

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### 4.1.4.1 Tree diagram
*The glass is melted and made into beautiful things.*

Tree diagram nodes:

S1 — NP — NOM — DET (*The*) — N (*glass*)

S2 — and

VP — Verb Group (passive) — Operator (*is*) — V (*melted*) — PP [by Ø]

NP — Ø

VP — Verb group (passive) (phrasal) — Ø — V (*made*) — *into* — NP — NOM — Adj (*beautiful*) — N (*things*) — PP [by Ø]
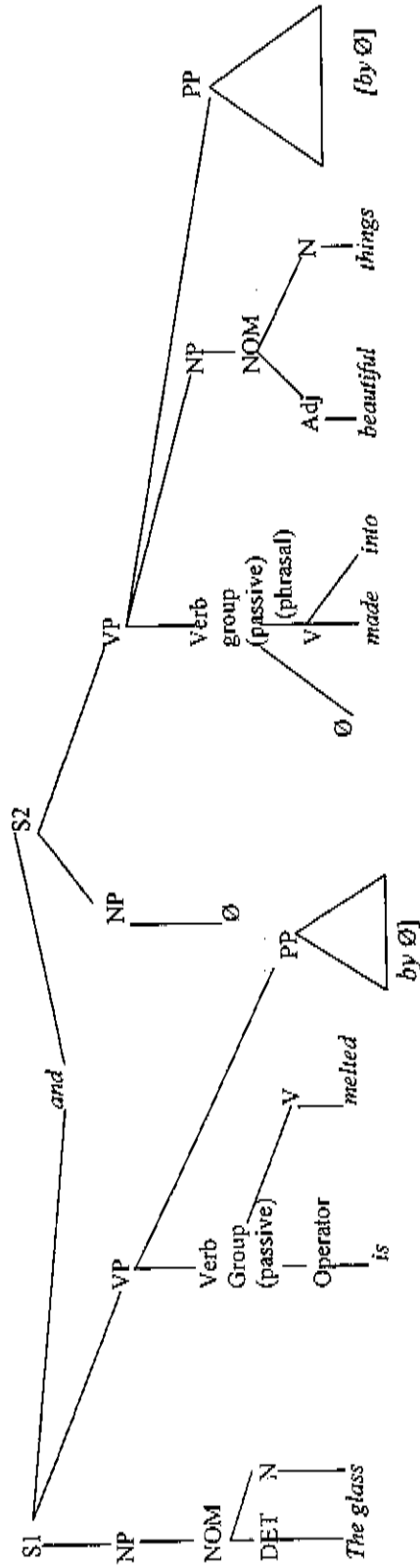
This tree diagram shows the structure of a compound set of passive sentences. It is very clearly shown that the subject of the related active sentence can disappear in English. (In fact it doesn't strictly have to be drawn like this.) This is in contrast to the pervasive use of the passive in African languages, but where the "by X" clause cannot readily be excluded.

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### 4.1.4.2 Summary of syntactic structures

The following are the structures found in the three Life Skills texts. As can be seen, they are very simple, and we can compare these with structures found in the L1 and L2 selections. Note: because the sampling was so small, some structures will not be represented here. Nevertheless, there are more structures here than there were in Van Rooyen's (1990) analysis of Grades 2-4.

| **Language Texts** | Text 1 | Text 2 | Text 3 |
|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ complex | ✓ | ✓ |
| 2. Commands, statements and denials | | ✓ | |
| 3. Wh- questions with words like *who, how* and *how much* | | ✓ | |
| 4. *how many* | | | |
| 5. *what* | | | |
| 6 Wh- in subordinate clause | | | |
| 7. *Yes/No* questions, including auxiliary and modal fronting | | | |
| 8. Tenses: present, past, present continuous | | ✓ | ✓ present historical |
| 9. Tense: past perfect | | | |
| 10. Relative clause with the relative pronoun *who* | | | |
| 12. *that* as relative clause marker | | | ✓ |
| 13. Co-ordinating sentences with *and* and *or* | | ✓ | ✓ |
| 14. Co-odinating phrases with *and* (not *but* or *or)* | | ✓ | ✓ |
| 15. *or* | | ✓ | |
| 16. Passive construction | | ✓ | ✓ predominates |
| 17. Modal *can* | | ✓ | ✓ |
| 18. Modal *could* | | ✓ | |
| 19. Modal *must* | | | |
| 20. Modal *may* | | | |
| 21. Modal *must have* (Concl.) | | | |
| 22. Demonstrative | | ✓ | ✓ |
| 23 Phrasal NP postmodifier | | ✓ | ✓ |
| 24. Phrasal NP premodifier | | | |
| 25. Finite verb group complement | | ✓ | |
| 26. Non-finite complement of verb group Type (I): The best thing for you to do is to tell everybody. | | ✓ | |
| 27. Non-finite verb group complement Type (II): All I did was to hit him. | | | ✓ |
| 28. Finite adverbial with *before, then, because, soon, now,* and *because, so as* and *until* | | | |
| 29. *when/how* | | | |

| Language Texts | Text 1 | Text 2 | Text 3 |
|---|---|---|---|
| 30. Subordinating conjunctions *before, then* | ✓ | | |
| 31. Comparative clauses *as big as/as fast* 19d. *as* | | ✓ | |
| 32. *because, where, when, if* | | | |
| 33. *when, what, who, about what* | | | |
| 34. *then* | | | |
| 36. *what* | | | |
| 37. Wh- in subordinate clauses | | | |
| 38. Discourse markers (COMP) *now, the, but* | | | ✓ |
| 39. Past perfect tense | | | |
| 40. *that* as relative clause marker | | ✓ | ✓ |
| 41. Ellipsis/substitution | | ✓ | ✓ |
| 42. Lists | | | ✓ |
| 43. Multiple embedding | | | |
| 44. Adverbial phrases (PP): Purpose | | | |
| 45: Time | | | ✓ |
| 46; Place | | ✓ | ✓ |
| 47. Manner | | ✓ | ✓ |
| 48. Present participle | | | |
| 49. Past participle | | | |
| 50. Asyndetic co-ordination (no conjunction) | | ✓ | ✓ |
| 51. Possessive | | ✓ | |
| 52. Existential *there* | | ✓ | |
| 53. *And* as sentence initial | | | |
| 54. NP in apposition | | | |
| 55. Transposed clause/phrase | | | |
| 56. Range of conjunctions | *The ...* | *but* | *when, then, if* |
| **TOTAL TYPES EACH COURSE** | **26** | **23** | **18** |

This text has the widest range of syntactic structures. It had two sophisticated structures: existential "*there*"(*there are a number of trees in the forest*) and transposed clauses (*far from feeling tired, she felt invigorated*). In general there is quite a reasonable spread of structures, and slightly more structures than in LS Text Three. Given the science text for Grade 4 which I analysed in Chapter 1, this range of syntactic structures would seem to be adequate, but then only because this Grade 4 text was written with extreme care and attention to language for L2 learners.

The list of vocabulary/lexemes appears overleaf. There are 286 words in this extract which gives 9,5 words per sentence.

## 4.1.5 Vocabulary

| | | | |
|---|---|---|---|
| 100 | games | Olympic | then |
| 2 000 | glass | one | there |
| A | Greece | only | they |
| about | Greeks | operates | things |
| again | had | other | this |
| ago | happen | our | threw |
| all | have | out | time |
| and | held | over | to |
| at | helpful | paper | took |
| away | herc | part | use |
| be | how | partner | used |
| beautiful | hundreds | people | very |
| big | if | pictures | waste |
| but | imagine | pile | we |
| call | important | place | were |
| can | in | played | what |
| chariot | into | project | when |
| children | is | races | who |
| collect | it | recycle | whole |
| could | last | recycling | why |
| countries | list | research | will |
| different | long | running | with |
| do | lot | same | won |
| draw | made | school | world |
| each | make | sell | would |
| every | many | show | write |
| everywhere | means | some | years |
| factory | melted | sports | you |
| fastest | money | stadium | your |
| find | near | started | |
| flag | next | Swaziland | ***140 lexemes*** |
| for | Ngwenya | take | |
| four | no | talk | |
| friends | now | the | |
| from | of | them | |

Difficult words which might need to be explained include: "chariot", "everywhere", "factory", "imagine", "melted", "operates", "project", "research" and "stadium". For example, the children might only be familiar with the melting of ice to water. Words that have different meaning to their everyday meanings are the ones that we must especially take into account.

This is a beautifully illustrated book, and children would have lots to learn from it.

### 4.1.6 Academic Language Functions: Life Skills

| Language | Student uses language to: | Examples | L1 NC | L2 NC | LS first | LS second | LS third |
|---|---|---|---|---|---|---|---|
| **1. Following instructions** | Read instructions to make or do something | Interpret information while reading instructions | ✓ | ✓ | ✓ | ✓ | – |
| **2. Observing and comparing** | Notice things that seem pertinent | Using senses at hand or watch something | ✓ | – | ✓ | ✓ | ✓ |
| **3. Seek Information** | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, how, to collect info in increasing competency | ✓ | – | ✓ | ✓ | – |
| **4. Measuring and estimating** | Use measuring instruments and make good guess | Use instruments to answer questions that require accurate information | – | ✓ | ✓ | ✓ | – |
| **5. Recording** | Measure carefully | Write down, make notes, trace/sketch pictures, complete diagrams, fill in data in tables | ✓ | – | ✓ | ✓ | – |

| Language | Student uses language to: | Examples | L1 NC | L2 NC | LS first | LS second | LS third |
|---|---|---|---|---|---|---|---|
| **6. Analyse** | Separate whole into parts | Tells parts or features of object or idea | ✓ | ✓ | | ✓ | – |
| **7. Compare** | Analyse similarities and differences in objects or ideas | Indicate similarities and difference in important parts or features of objects or ideas, outline/diagram/ web. Indicate how A contrasts/ compares with B | – | – | ✓ | ✓ | ✓ |
| **8. Classify** | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B, or how A and B go together but not C and D. Explain why things go together | – | – | ✓ | ✓ | – |
| **9. Interpreting information** | Interpret information in different forms | Using texts, diaries, drawings, diagrams, models, tables and graphs | ✓ | ✓ | ✓ | – | ✓ |
| **9.1 Changing the form** | Interpret different forms of information | Changing forms of information to express understanding | ✓ | ✓ | ✓ | – | – |
| **9.2 Applying concepts** | Know when to use concepts and how | Create useful ideas that summarise a number of experiences | ✓ | – | – | – | – |
| **9.3 Making inferences** | Infer that which is beyond the obvious | Conclusions based on different sources of information | ✓ | – | ✓ | – | ✓ |

| Language | Student uses language to: | Examples | L1 NC | L2 NC | LS first | LS second | LS third |
|---|---|---|---|---|---|---|---|
| **9.4 Seeing parts and stating relationships** | Try different possibilities and find relations | Describe what has been done and how relationships have been determined | – | – |  | – | – |
| **10. Predict** | Another form of interpretation; predict implications | Predict implications from actions or from stated text | ✓ | – |  | ✓ | ✓ |
| **11. Inform** | Report, explain, or describe information or procedures | Retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow-charts, posters, diagrams, pie-charts & bar graphs | ✓ | – |  | ✓ | ✓ |
| **12. Hypothe-sise** | Hypothesise consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported | ✓ | – |  | ✓ | ✓ |
| **13. Justify** | Give reasons for an action, a decision, or a point of view | Tell why A is important, why you selected A, or why you believe A | ✓ | – |  | ✓ | ✓ |
| **14. Persuade** | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position | ✓ | – |  | ✓ | ✓ |

| Language | Student uses language to: | Examples | L1 NC | L2 NC | LS first | LS second | LS third |
|---|---|---|---|---|---|---|---|
| **15. Solve Problems** | Determine solution using models and theories | Given stated problem, reach solution | ✓ | – | | ✓ | – |
| **16. Synthesise** | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem | – | – | | – | – |
| **17. Evaluate** | Assess the worth of an object, opinion, or decision | Select or name criteria to evaluate, prioritise a list and explain, evaluate an object or proposition, indicate reasons for agreeing or disagreeing | ✓ | – | | ✓ | – |
| **Conclusion L1** | Total functions = 21 | | 16/21 | – | | – | – |
| **Conclusion L2** | Total functions = 5 | | | 5/21 | 13/21 | 15/21 | 9/21 |

Sources: O'Malley (2007), Moodie (2004) and RNCS (2002) for Home Language (L1) and First Additional Language (L2)

Scheme One L2 has 19 exponents as against 13 in this Life Skills text. At this stage the actual exponents have been compared across the two texts. Further notes may be found in Chapter 6, Summary of Conclusions.

## 4.2 LS Text Two

### 4.2.1 Introduction

This is the second text in the chapter on Life Skills. The purpose of the analysis of LS texts is first to see whether these texts are more, or less, difficult than the L1 and L2 texts analysed; and second, because Life Skills should be the beginnings of informational or expository texts, to see whether learners will be able to meet the challenges that these kinds of texts would seem to bring.

The first thing to mention is that because language texts are supposed to be cross-curricular, as are Life Skills texts, we would expect that there might be an overlap of topics. The Life Skills texts, however, will not have lessons devoted to language structures/functions. Since LS texts have Teacher's Guides/Books, it is possible to determine whether "wysiwyg" applies (what you see is what you get). In fact this *is* the case with LS Text Two.

A comprehensive list of the topics and subtopics (activities/lessons) from the Table of Contents appears after two scanned pages from the Grade 3 LS Learner's Book, *Topic 27: Safety underground.*

# Safety underground

4.

Moses
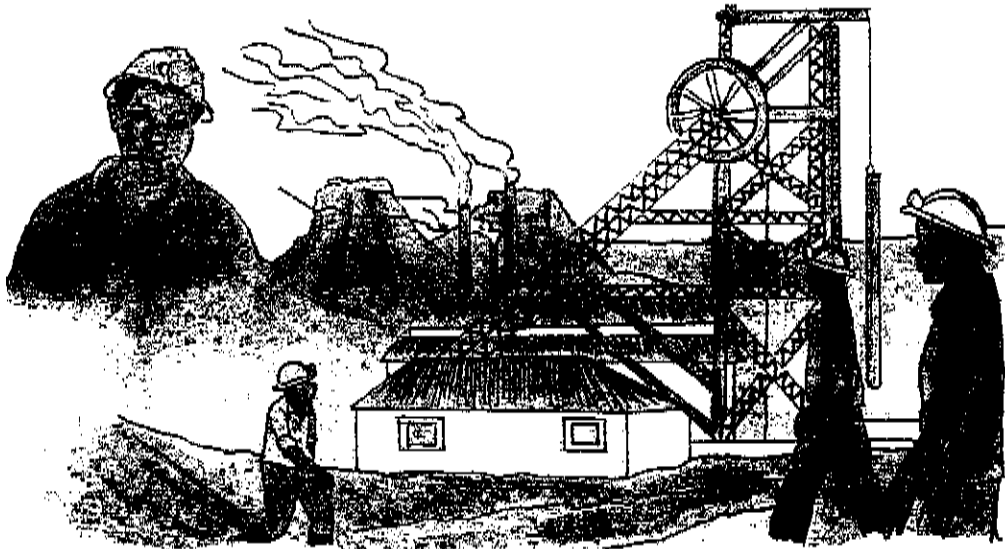
**I.** Here I am with other miners. We are starting our underground shift at the gold-mine. Can *you* see the mine dumps? How do *you* think they were formed?

3. Gold is found deep underground inside rocks called ore. We travel down in a cage. A cage is a bit like a lift. Have *you* ever been in a lift in a shopping centre or tall building?

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**5.** My job is to drill holes in the surface of the rock. Another miner packs the holes with explosives. The explosion breaks up the rock. What could go wrong when we set off the explosion(
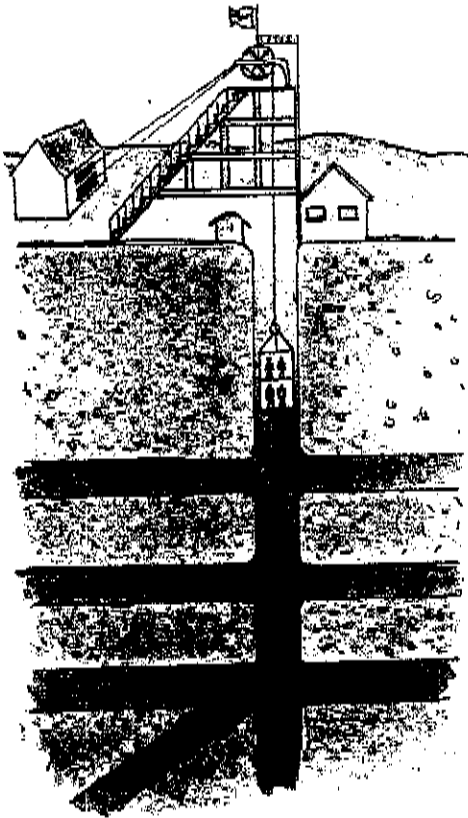
4. Find these things in this diagram of a gold-mine:

- the winder house
- the head gear
- the main shaft
- the cage
- the wire rope
- the tunnels
- the mine-props

What are each of these things used for?
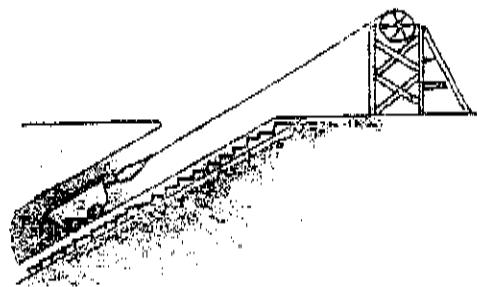
**6.** We load the ore onto a small truck or hopper. The hopper is pulled to the top of the mine. What do you think happens to the ore?

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The first thing that must be said is that the topics in LS Text Two actually reflect topics across the Curriculum; and a look at the Teacher's Guide reveals that these lesson titles are fully substantiated in the text. Extra information in the Teacher's Book is for teacher support. It therefore seems that this is a text that can be covered over the course of a year.

The **Table of Contents** of LS Text Two is as follows:

**Moving Around:** Measure and move; Movement I can make; Special people; Feelings

**Living Things:** Living and non-living things; Nature in danger; Cycles in nature; Use and Re-use water.

**Things we need:** Things we have, things we need; Things we need at school; At the shops: Paying for things.

**Our environment:** Wind and direction; The weather; Continents and oceans; Sun, Moon and stars.

**Let's do something!:** Fighting extinction; Work together; Travel around; Our country and its people.

**Protection and Health:** Helpers in the community; Help during disasters; Help your body; A healthy environment.

**Keeping Safe:** Safe living; Safer Roads; Safety at the Workplace; Safety in the sun.

**Going places:** Future plans; Where can we go? Celebrations and feasts; Stars of the future.

With an eye to what is coming in Grade 4, probably the weakest area is in Science and Technology. There are five topics that have some relevance, but they are not very technical. Perhaps we would need to have authors from these Learning Areas to give advice on this important area.

## 4.2.2 Coherence

The first topic analysed is Topic 26, it is a double-spread picture of people not using the road properly. I counted thirteen instances of them not doing so, unless it is a one-way street – in which case there are eleven. The children are asked to discuss the consequences for this kind

of behavior. They are also asked why so many people die on our roads. Obviously these two questions are related. There is a lot of vocabulary that they would need to describe the actions, and none is given. The Arrive Alive campaign over Christmas said that half the deaths on the roads were pedestrians – over 500 people. Some of these things would be seen in the picture, except for drunken pedestrians. Such young children would in any case not be in a position to stop drunk people from crossing the road.

The more important example is *Topic 27: Safety underground.* This is a gratuitous title, because only one of the six sections deals with safety. Notwithstanding this, this is an excellent and child-friendly introduction to mining. Moses is our guide. Each section finishes with a question. The first one is about mine-dumps: well, they are the wrong colour. Anyone who lives in Johannesburg (or near a mine) would know that dumps are more creamy-beige in colour and not grey. Moses then asks why he dressed the way he is, and this is probably answerable with some imagination. Then he goes down in a cage. This paragraph is not coherent. Furthermore, it's not usual for four men to go down but rather as many as forty. But once again artistic licence may be operating. Section 4 is interesting, because it is a cross- section of the cage going down the main shaft. There is a list of things children are asked to identify, and most of them can be worked out, except for the mine props, which are not clear; these are illustrated by little black strokes across the tunnels. One would hope that the teacher would not turn this question into a test question. In Section 5 Moses says that his job is to drill holes in the surface of the rock. Interestingly, Moses has transmuted into a woman, rather fetchingly dressed, drilling. While this might be a non-sexist artist, in practice there are very few women working in gold mines; not because of a lack of strength, but because of their differing toiletry needs, especially monthly ones. Having picked on the details, this double spread with information and questions is the best lesson on mining I have ever seen, so it should be assessed in that light.

The third topic, which the 30 sentences entered into, briefly, was on sunlight. It started with an experiment on covering a leaf with tinfoil, and then seeing a few days later that the leaf had gone yellow. This topic is not very coherent over the two days, because it straight away enters into the dangers of sunlight. The children have to complete a rhebus writing exercise

with words from an illustrated word box. The eyes and the ears are definitely those of white people, and a little investigation reveals that black people generally do not use sunscreen; except on doctor's orders. So the SLIP, SLOP and SLAP way of treating the sun may not be applicable to black children. (This is notwithstanding the high price of sunscreen lotions.)

## 4.2.3 Cohesion

*TEXT*

### Safer roads

The people[4a] in this picture are not using the road[3a] safely[1a]. Find[5a] the dangerous[1b] things that are happening[2a] and talk about[5b] what could happen[26a] next. Why do so many people[1c][4b] die on our roads[3b]?

### Safety

Here I[6a] am with other miners[6b]. We[6c] are starting our[6d] underground shift at the mine[7a]. Can you[20a] see the[7b] mine dumps[8a]? How do you think they[8b] were formed?
Why is it important for me[6e] to wear a white hard-hat with a light, and rubber boots?
Gold is found deep inside rocks called ore[19a]. We travel down in a cage[9a]. A cage is a bit like a lift[9b]. Have you[20b] ever been in a shopping centre or tall building[9c]?
Find these things[10a] in the diagram of a gold-mine: the winder house, the head gear, the main shaft, the cage, the wire rope, the tunnels, the mine props[11a][12a]. What are each[12b] of these things used for?
My job is to drill holes[13a] in the surface of the rock. Another miner packs the holes[13b] with explosives[14a]. The explosion[14b][15a][16a] breaks up the rock. What could go wrong when we[6f] set off the explosion[16b]?

We load the ore[17a] onto a small truck or hopper[18b]. The[18b] hopper[18c] is pulled to the top of the mine. What do you[20c] think happens to the ore[19b]?

### Sunny days

The Earth[13a] needs the Sun[1a][12a]. Without sun[1b][4a][6b], there would be no green plants[14a], no animals[14b], and no people[14c].

Imagine you[15a] wrap a piece of tinfoil[8a] around one of the leaves[2a][9a] of a healthy green pot plant, and that you[15b] continue to look after the plant[3b] correctly by giving it enough water and sunlight[4a]. The tinfoil[5b] will stop the Sun's rays[6b] reaching the leaf.
1. What will happen to the leaf[7a] you[15c] wrapped foil around[8b]?
2. What will happen to the rest of the leaves[9b] on the plant?

Read the passage on p.57 and fill in the missing words[10a][11]. All the words[10b] you[15d] need are in the word box[11b] above.

The Sun[12b] is important to all life on Earth[13b]. But be careful, the Sun's[1c] rays are very dangerous.

### *ANALYSIS*

**Safer roads and Safety**

1[a][b] lexical cohesion "safely" "dangerous things"
2[a][b] lexical reiteration "happening" "could happen next"
3[a][b] lexical cohesion "not using the road safely" "die on our roads"
4[a][b] lexical reiteration "the people" "people who..."
5[a][b] lexical cohesion "find" "talk about"
Collocation: "safely" "dangerous" "die" "roads"

**Safety underground**

6[a][b][c] anaphoric reference "other miners" "we" "our"
6[b][e][f][g][h] Anaphoric reference "miners" "my" "we"
7[a][b] lexical cohesion "mine" "mine dumps"
8[a][b] anaphoric reference "mine dumps" "they"
9[a][b] lexical cohesion "cage" "a bit like a lift"
10[a][b] cataphoric reference "these things" "the winder house..."
11[a][b] lexical cohesion "...the winder house ... the mine props"
12[a][b] anaphoric reference "the winder house..." "each of these things"
13[a][b] lexical cohesion "drill holes" "packs the holes"
14[a][b] lexical cohesion "explosives" "explosion"
15[a][b] lexical reiteraion "the explosion" "the explosion"
17[a][b][c] lexical cohesion "ore" "explosives" "rock"
18[a] [b] anaphoric reference "hopper" "the hopper"
19[a][b] lexical cohesion "ore" "rock"
20[a][b][c] exophoric reference "you"
21[a][b] lexical reiteration "rock"
Collocation:
       "miners" "gold mine"
       "gold mine" "shift"
       "rocks" "ore"
       "cage" "lift"
       "holes" "rock"
       "holes" "explosives"
       "explosion" "breaks up".

**Sunny days**

1[a] [b][c] anaphoric reference "the Sun" "sun"
2[a][b][c][d] lexical cohesion/anaphoric reference "one of the leaves" "leaves"
3[a][b] lexical cohesion "pot plant" "plant"
4[a][b] lexical cohesion: "Sun" "sunlight"
5[a][b] anaphoric reference and lexical cohesion "tinfoil"
6[a][b] lexical cohesion "Sun" "Sun's rays"
7[a][b] anaphoric reference "wrap a piece of tinfoil" "the leaf you wrapped foil around"
8[a][b] anaphoric reference/lexical reiteration "piece of tinfoil" "foil"
9[a][b] lexical cohesion " the leaves you wrapped..." "the rest of the leaves..."
10[a][b] anaphoric reference "words" "all the words"
11[a][b] lexical cohesion "words" "word-box"
12[a][b] lexical reiteration "Sun"
13[a][b] lexical reiteration "Earth"
14[a][b][c] lexical cohesion "no green plants" "no animals" "no people"
15[a][b][c][d] exophoric reference "you"
Collocation:   "earth" "sun"
           "leaves" "pot plant"
           "plant" "water" "sunlight".

All three of these passages are cohesive. This conclusion is reached when there is a broad span of anaphoric reference and lexical cohesion. Here is a summary of the total devices found in the three texts:

| Anaphoric Reference | Lexical Cohesion | Lexical Reiteration | Ellipsis | Collocation | Cataphoric Reference | Exophoric Reference |
|---|---|---|---|---|---|---|
| 15 | 20 | 6 | 1 | 12 | 1 | 1 |

These texts are robustly cohesive: Lexical cohesion predominates the anaphoric reference; collocation follows these two.

## 4.2.4 Syntax

On the following page there is a tree diagram followed by two pages of a summary of structures that were found in the extract.

In the tree diagram the only particular point of interest is the fact that there can be two Prepositional Phrases following each other. Prepositional Phrases are attached to the previous Nominal Group.

Following the tree diagram below, is a table of the structures found in the three Life Skills texts. As can be seen, they are very simple, and later we can compare these with structures found in the L1 and L2 selections. This will be done in Chapter 6, Summary of Conclusions.

Text One has 25 syntactic structures which could be identified, and Text Two has 28 structures. Looking at the actual structures, there none missing in Text Two that would weaken its structure. It is worth mentioning though, that Text One has five conjunctions and Text Two only three. Simple conjunctions such as *and, or, because,* etc. are missing.

**4.2.4.1 Tree diagram**
*My job is to drill holes in the surfaces of a rock.*

### 4.2.4.2 Summary of syntactic structures

| Language Texts | Text 1 | Text 2 | Text 3 |
|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ +complex | | ✓ |
| 2. Commands, statements and denials | ✓ | | |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | | |
| 4. *how many* | | | |
| 5. *what* | | | |
| 6 Wh- in subordinate clause | | | |
| 7. *Yes/No* questions, including auxiliary and modal fronting | | | |
| 8. Tenses: present, past, present continuous | ✓ | | ✓ present historical |
| 9. Tense: past perfect | ✓ | | |
| 10. Relative clause with the relative pronoun *who* | | | |
| 12. *that* as relative clause marker | | | ✓ |
| 13. Co-ordinating sentences with *and* and *or* | ✓ | | ✓ |
| 14. Co-odinating phrases with *and* (not *but* or *or*) | ✓ | | ✓ |
| 15. *or* | | | |
| 16. Passive construction | ✓ | | ✓ predominates |
| 17. Modal *can* | ✓ *can be* | | ✓ |
| 18. Modal *could* | ✓ | | |
| 19. Modal *must* | | | |
| 20. Modal *may* | | | |
| 21. Modal *must have* (Concl.) | *would* | | |
| 22. Demonstrative | ✓ | | ✓ |
| 23 Phrasal NP postmodifier | ✓ | | ✓ |
| 24. Phrasal NP premodifier | | | |
| 25. Finite verb group complement | | | |
| 26. Non-finite complement of verb group Type (I): The best thing for you to do is *to tell* everybody. | | ✓ | |
| 27. Non-finite verb group complement Type (II): All I did was *to hit* him. | | | ✓ |
| 28. Finite adverbial with *before, then, because, soon, now,* and *because, so as* and *until* | ✓ | | |
| 29 *when/how* | ✓ | | |
| 30. Subordinating conjunctions *before, then* | ✓ | | |
| 31. Comparative clauses *as big as/as fast 19d. as* | | ✓ | |

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| Language Texts | Text 1 | Text 2 | Text 3 |
|---|---|---|---|
| 32. *because, where, when, if* | ✓ | | |
| 33. *when,what, who, about what* | | | |
| 34. *then* | | | |
| 36. *what* | | | |
| 37. Wh- in subordinate clauses | | | |
| 38. Discourse markers (COMP) *now, the, but* | | | ✓ |
| 39. Past perfect tense | | | |
| 40. *that* as relative clause marker | | | ✓ |
| 41. Ellipsis /substitution | ✓ | | ✓ |
| 42. Lists | ✓ | | ✓ |
| 43. Multiple embedding | ✓ | | |
| 44. Adverbial phrases (PP): Purpose | | | |
| 45: Time | ✓ | | ✓ |
| 46: Place | ✓ | | ✓ |
| 47. Manner | ✓ | | ✓ |
| 48. Present participle | | | |
| 49. Past participle | | | |
| 50. Asyndetic co-ordination (no conjunction) | ✓ | | ✓ |
| 51. Possessive | | | |
| 52. Existential *there* | ✓ | | |
| 53. *And* as sentence initial | | | |
| 54. NP in apposition | | | |
| 55. Transposed clause/phrase | ✓ | | |
| 56 Range of conjunctions | *Then, but, now, if* | | *when, then, if* |
| TOTAL TYPES EACH COURSE | 26 | 23 | 18 |

This text has the greatest range of syntactic structures. This may be because three topics were (partially) covered, and that the language is very interactive with the child.

## 4.2.5 Vocabulary

| | | | |
|---|---|---|---|
| a | at | careful | drill |
| about | be | centre | dumps |
| above | bit | continue | each |
| after | boots | correctly | earth |
| all | breaks | could | enough |
| am | building | dangerous | ever |
| and | but | deep | explosion |
| animals | by | diagram | explosives |
| another | cage | die | fill |
| are | called | do | find |
| around | can | down | foil |

| | | | |
|---|---|---|---|
| for | look | rays | top |
| formed | main | reaching | travel |
| found | many | read | truck |
| giving | me | rest | tunnels |
| go | mine | road | underground |
| gold | mine | rope | up |
| gold-mine | miner | rubber | used |
| green | missing | safely | very |
| happen | my | see | water |
| hard-hat | need | set | we |
| have | next | shaft | wear |
| head-gear | no | shift | were |
| healthy | not | shopping | what |
| here | of | small | when |
| holes | off | so | white |
| hopper | on | starting | why |
| house | one | stop | will |
| how | onto | sun | winder |
| I | or | sun's | wire |
| imagine | ore | surface | with |
| important | other | talk | without |
| in | our | tall | word-box |
| inside | packs | that | words |
| is | page | the | would |
| it | passage | there | wrap |
| job | people | these | wrapped |
| leaf | picture | they | wrong |
| life | piece | things | you |
| lift | plant | think | |
| light | pot-plant | this | |
| like | props | tinfoil | *171 lexemes* |
| load | pulled | to | |

There is a large range of lexemes in these extracts; there are 325 words in all, making the length of each sentence 10,8 words This is possible that this is a function of three topics, but the topic which introduced the most new vocabulary was the topic on mining.

It could be surmised that while there are a lot of words (lexemes), there are not many words that children would struggle with. I would suggest the following: "another" "centre" "enough" "imagine" load" "main" "props" and "wrapped". Words that have different meanings from their everyday meanings are the ones that we must take into account especially.

This is a well-illustrated book, with a range of interesting topics without overload, and children would have a great deal to learn from it.

## 4.2.6 Academic Language Functions

| Language | Student uses language to: | Examples | L1 RC | L2 NC | LS first | LS second | LS third |
|---|---|---|---|---|---|---|---|
| 1. Following instructions | Read instructions to make or do something | Interpreting information while reading instructions | ✓ | ✓ | ✓ | ✓ | – |
| 2. Observing and comparing | Notice things that seem pertinent | Using senses at hand or watch something | ✓ | – | ✓ | | ✓ |
| 3. Seek information | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, and how, to collect information in increasing competency | ✓ | – | ✓ | ✓ | – |
| 4. Measuring and estimating | Use measuring instruments and make good guess | Use instruments to answer questions that require accurate information | – | ✓ | ✓ | | – |
| 5. Recording | Measure carefully | Write down, make notes, trace and sketch pictures, complete diagrams, fill in data in tables | ✓ | – | ✓ | ✓ | – |
| 6. Analyse | Separate whole into parts | Tells parts or features of object or idea | ✓ | ✓ | – | | – |
| 7. Compare | Analyse similarities and differences in objects or ideas | Indicate similarities and difference in important parts or features of objects or ideas, outline/ diagram/web. Indicate how A contrasts/compares with B | – | – | ✓ | ✓ | ✓ |

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| Language | Student uses language to: | Examples | L1 RC | L2 NC | LS first | LS second | LS third |
|---|---|---|---|---|---|---|---|
| 8. Classify | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B, or how A and B go together but not C and D. Explain why things go together | – | – | ✓ | ✓ | – |
| 9. Interpreting information | Interpret information in different forms | Using texts, diaries, drawings, diagrams, models, tables and graphs | ✓ | ✓ | ✓ | – | ✓ |
| 9.1 Changing the form | Interpret different forms of information | Changing forms of to express understanding | ✓ | ✓ | ✓ | – | – |
| 9.2 Applying concepts | Know when to use concepts and how | Create useful ideas that summarise a number of experiences | ✓ | – | – | – | – |
| 9.3 Making inferences | Infer that which is beyond the obvious | Conclusions based on different sources of information | ✓ | – | ✓ | – | ✓ |
| 9.4 Seeing parts and stating relationships | Try different possibilities and find relations | Describe what has been done, and describe how relationships have been determined | – | – | – | – | – |
| 10. Predict | Another form of interpretation; predict implications | Predict implications from actions or from stated text | ✓ | – | ✓ | ✓ | ✓ |
| 11. Inform | Report, explain, or describe information or procedures | Retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow-charts, posters, diagrams, pie-charts & bar graphs | ✓ | – | ✓ | ✓ | ✓ |

| Language | Student uses language to: | Examples | L1 RC | L2 NC | LS first | LS second | LS third |
|---|---|---|---|---|---|---|---|
| **12. Hypo-thesise** | Hypothesise consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported | ✓ | – | | ✓ | ✓ |
| **13. Justify** | Give reasons for an action, a decision, or a point of view | Tell why A is important, why you selected A, or why you believe A | ✓ | – | ✓ | ✓ | ✓ |
| **14. Persuade** | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position | ✓ | – | ✓ | | ✓ |
| **15. Solve problems** | Determine solution using models and theories | Given stated problem, reach solution | ✓ | – | – | ✓ | – |
| **16. Synthesise** | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem | – | – | – | | – |
| **17. Evaluate** | Assess the worth of an object, opinion, or decision | Select or name criteria to evaluate, prioritise a list and explain, evaluate an object or proposition, indicate reasons for agreeing or disagreeing | ✓ | – | – | ✓ | – |
| **Conclusion L1** | Total functions=21 | | 16/21 | – | – | | – |
| **Conclusion L2** | Total functions = 5 | | | 5/21 | 13/21 | 15/21 | 9/21 |

Sources: O'Malley (2007), Moodie (2004) and RNCS (2002) for Home Language (L1) and First Additional Language (L2).

This text has the greatest number of language functions of the three texts, and this is surprising because the first text is much "busier" and apparently more detailed than the second one. This text was the only one to give examples of "Evaluate", "Solve Problems" and "Analyse". By Grade 4, the criteria for assigning these functions to reading will be stricter.

### 4.2.7 Conclusion

This text would seem to be more within the reach of the children, because it covers fewer topics. However, some of them, such as the Solar System, might not be readily understandable. There is some concern in practice, insofar as the Life Skills texts are so very different. It will put children who move schools at a particular (dis)advantage if the previous school were to prepare for the Grade 4 more or less adequately. This will be aggravated if a child has missed out coverage of a complete piece of text.

## 4.3 LS Text Three

### 4.3.1 Introduction

This is the third in the set of analyses of Life Skills texts. The purpose of doing this is, principally, to see whether these texts are more difficult than the L1 and L2 texts. Also Life Skills is the introduction of informational or expository texts. Will children be able to cope with the challenges that such texts bring?

There are three texts examined in this chapter, but it should be noted that one of the L2 scheme publishers has published several LS texts, and a second text from them is covered here. This route was taken because the publishers' of the third L2 scheme do not publish across the curriculum.

The first thing to mention is that because Language texts are supposed to be cross-curricular, as are Life Skills, one would expect that there might be an overlap of topics. However, the Life Skills texts will not have lessons devoted to language structures/functions per se. (Content subject teachers are very resistant to doing "language" in their Learning Areas.) As all the LS texts have Teacher's Guides/Books, it is possible to determine what is covered, and in what depth.

The Teacher's Book for LS Text Three, however, has not been helpful in giving an explicit list of topics and subtopics (lessons) for Grade 3:

**How we behave:** Things I can do; Feelings; Respecting myself; Respecting others.

**How we communicate:** Speech; Writing; Reading; Listening and looking.

**My country:** South Africa and its symbols; Different people in my country; People who need help or care; People who give help or care.

**People from long ago:** My family from long ago; Making things long ago; Heroes.

**Life Cycles:** Mammals; Reptiles; Amphibians; Insects.

**People who make things:** Clothes; Bricks; Bakery; Canning Factory.

**Recycling:** What can we do with rubbish?; Using waste paper; Using waste cans and bottles; Making things to sell.

The above list is from the Teacher's Book – the Learner's Book has more lessons under each subtopic. These topics show a concerted effort to cover Economic and Management Sciences (EMS), Natural Sciences, Life Orientation and History (History and Geography together form the Learning Area Social Sciences). (In the Foundation Phase, the Learning Programme Life Skills covers the six Learning Areas below; Learning Programmes Literacy and Numeracy cover Languages and Mathematics.)

LS Text Three also has a range of tasks for children to do that only appear in the Teacher's Book. Certain deductions can be made from the Teacher's Book; there is a table showing the coverage of the Assessment Standards according to the Learning Areas. These are claims that are beyond the scope of the present study to verify, but here they are:

| Life Orientation | Technology | Arts and Culture | Natural Sciences | SS History | SS Geography | EMS |
|---|---|---|---|---|---|---|
| 32 | 11 | 24 | 10 | 10 | 5 | 6 |

The Workbook for Text Three was not available at the time of writing. Text Three is not as text heavy as Text One. Below are two pages from the Learner's Book.

## What rots?

Find out for yourself!
Do this simple test.

① Fill a tub with damp soil.

② Find some rubbish made by people and some natural rubbish.

banana skin · marble · lid · nail · leaf · peel
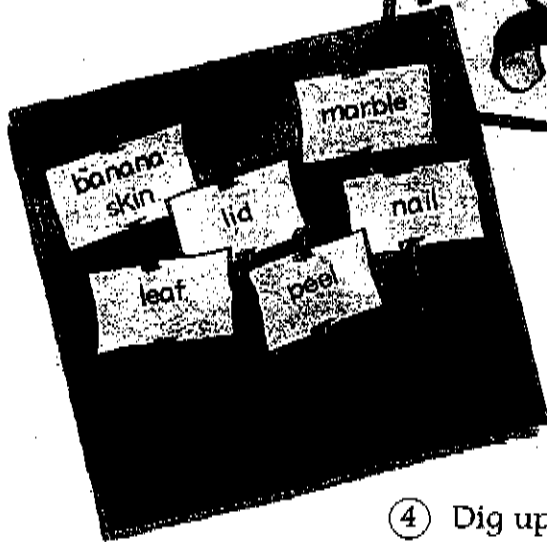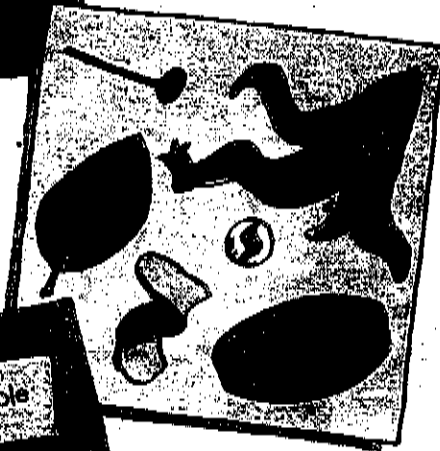
③ Bury each item in the soil and label it.

④ Dig up the items after 2 weeks and see if they have changed at all.

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## Recycling in nature

Fruit grows on the tree.

A new tree grows.

Recycling in nature

A bird eats the fruit.

Minibeasts eat the dead bird and leaves.
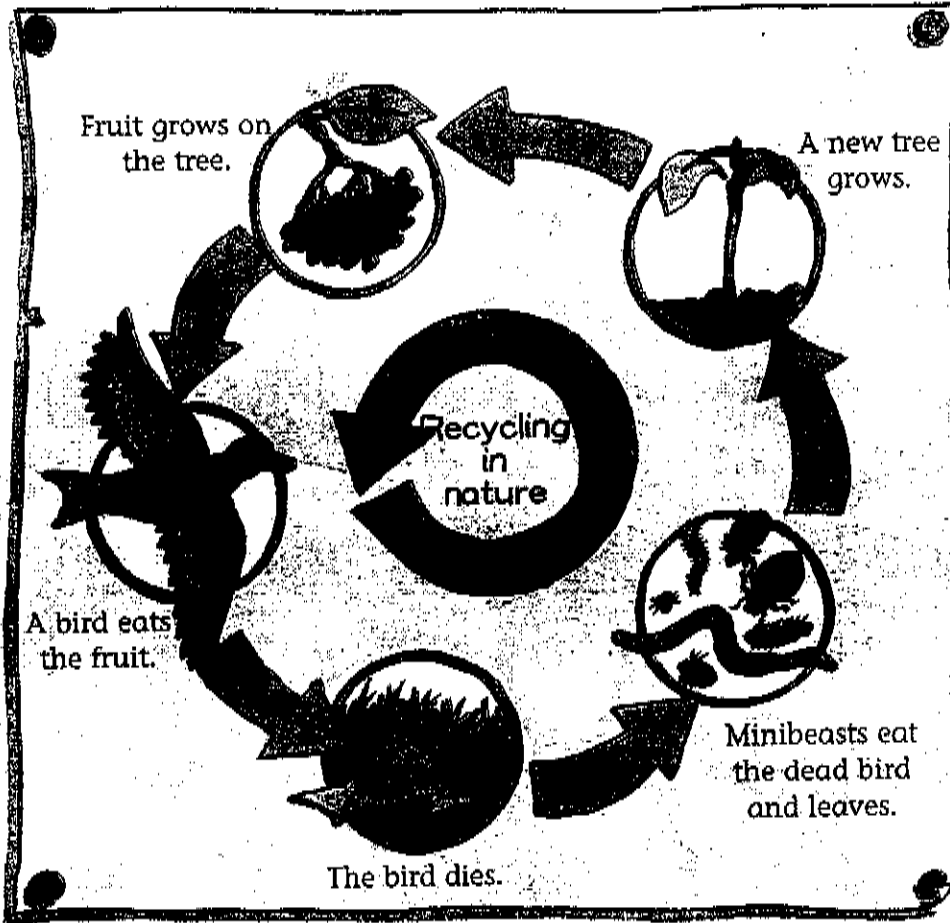
The bird dies.

A tree bears _ _ _ _ _.

A _ _ _ _ eats the fruit.

The bird _ _ _ _.

_ _ _ _ _ _ _ _ _ _ eat the dead bird.

This keeps the _ _ _ _ healthy.

A new _ _ _ _ can grow.

| |
|---|
| soil |
| dies |
| minibeasts |
| bird |
| fruit |
| tree |

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## 4.3.2 Coherence

This text uses a range of rubrics:

There is a story with eight pictures and running text below each one. Then there is a range of pictures that children have to discuss. There is a range of pictures with one sentence below each. Also, there is a cartoon story with twelve pictures; finally there are illustrative pictures. This text has the greatest range of rubrics and a very pleasing aesthetic sense.

## 4.3.3 Cohesion

### *TEXT*

Fill a tub with damp soil. Find some rubbish[1] made by people and some natural rubbish[1a]. Bury each item[2] in the soil and label it. Dig up the[2a] items[2b] after 2 weeks and see if they[2c] have changed at all.

Fruit[3] grows[12] on the[7] tree[8]. A[4] bird[5] eats[6] the[9] fruit[3a]. The[4a] bird[5a] dies. Minibeasts eat[6a] the[4b] dead bird[5b] and leaves. A[7a] new tree[8a] grows. A tree[8b] bears fruit[3b]. A[4b] bird[5b] eats the[9a] fruit. The[4b] bird[5c] dies. The minibeasts eat the[4c] dead[10] bird[5d][11a]. This[11] keeps the soil[13] healthy. A new tree[8c] can grow[12a].

Paper[14] can be used again. Waste paper[14a,15] is cut up. It[14b] is mixed with manure. It[14c] is used as fertilizer[15] by farmers[16]. At home[16a], paper[14d] can be torn up. It[14e] can be mixed with kitchen and garden waste[14f] to make compost[15a] for the garden.

Used paper[17] from offices, shops and homes can be recycled. This[17a] paper[17b] is made into pulp[18] (like a porridge). The[19] pulp[18a] is cleaned. The[20] paper[18b] is rolled out and dried on this[20a] paper machine[23]. This[21] is the new paper[17c] on this[22] roll.

Old bottles[25] made new. Jo[24] and Thiathu choose colddrinks[27] in the supermarket. Jo[24a] puts her empty bottle[25a] into a bottle[25b] bank. The[25a] bottle[25b] is washed and then it[25c] is crushed. The[25e] glass[25f] melts in the furnace. The hot[26a] glass[25e] is poured into a mould that will give it a shape when it cools[26b]. The bottles are filled with colddrink[27a]. A cap is put on by a machine.

## ANALYSIS

[1][1a] Reiteration "rubbish"
[2][2a] Anaphora
[2][2b] Reiteration "item"
[2][2c] Anaphora
[3][3a][3b] Reiteration "fruit"
[4][4a][4b][4c] Anaphora "bird"
[5][5a][5b][5c][d] Reiteration "bird"
[6][6a] Reiteration "eats"
[7][7a] Cataphoric Reference "a/the"
[8][8a][8b] Reiteration "tree"
[9][9a] Anaphora "fruit"
[10] Lexical cohesion/collocation "dead"
[11][11a] Anaphoric reference Whole sentence "The minibeasts…"
[12][12a] Reiteration "grow"
[13] Lexical cohesion/collocation "soil"
[14][14a] Reiteration "paper"
[14][14b][14b][14c][14e] Anaphoric reference "paper/it"
[14][14d] Reiteration "paper"
[14][14f] Lexical cohesion/collocation "paper/waste"
[15][15a] Lexical cohesion "paper/compost"
[16] Lexical cohesion/collocation "farmer/fertilizer"
[17][17a] Anaphora "paper/this"
[17][17b] Reiteration "paper"
[18][18a] Reiteration "pulp"
[18][18b] Collocation "pulp/paper"
[18][19] Anaphoric reference "pulp"
[20][20a] Cataphoric reference "the/this"
[21] Exophoric reference "this"
[22] Exophoric reference "this"
[23] Lexical cohesion "paper/machine"
[24][24a] Reiteration "Jo"
[25][25a][b] Reiteration "bottle"
[25][25c] Anaphoric reference "bottle"
[25][25d][2e] Anaphoric reference "bottle"
[25][25d] Reiteration "Bottle"
[26][26a] Collocation "furnace"/hot"
[26][26b] Collocation "furnace/cools"
[27][27a] Reiteration "colddrink".

## 4.3.4 Syntax

The tree diagram below is followed by a summary of the structures found.

## 4.3.4.1 Tree diagram

*Find some rubbish made by people and some natural rubbish.*

### 4.3.4.2 Summary of syntactic structures

The following are the structures found in the three Life Skills texts. As can be seen, they are very simple, and following this summary, we can compare these with structures found in the L1 and L2 selections. Note: because the sampling was so small, some structures will have inevitably slipped through the net of the analysis. Nevertheless, there are more structures here than there were in Van Rooyen's (1990) analysis of Grades 2-4.

| Language Texts | Text 1 | Text 2 | Text 3 |
|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ +complex | ✓ | |
| 2. Commands, statements and denials | ✓ | ✓ | |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | ✓ | |
| 3a. *how many* | | | |
| 3b. *what* | | | |
| 3c. Wh- in subordinate clause | | | |
| 4. *Yes/No* questions, including auxiliary and modal fronting | | | |
| 5. Tenses: present, past, present continuous | ✓ | ✓ | present historical |
| 5a. Tense: past perfect | ✓ | | |
| 6. Relative clause with the relative pronoun *who* | | | |
| 6a. *that* as relative clause marker | | | |
| 7. Co-ordinating sentences with *and* and *or* | ✓ | ✓ | |
| 8. Co-odinating phrases with *and* (not *but* or *or*) | ✓ | ✓ | ✓ |
| 8a. *or* | | ✓ | |
| 9. Passive construction | ✓ | ✓ | ✓ predominates |
| 10. Modal *can* | ✓ *can be* | ✓ | ✓ |
| 10a. Modal *could* | ✓ | ✓ | |
| 10b. Modal *must* | | | |
| 10c. Modal *may* | | | |
| 10d. Modal *must have* (Concl.) | *would* | | |
| 11. Demonstrative | ✓ | ✓ | ✓ |
| 12a. Non-finite verb group complement e.g. He will help you *to bring them back* | | ✓ | |
| 12b. Finite verb group complement: e.g. Everyone *hoped* he *would sing.* | ✓ | | |
| 14a. Non-finite post modifier of NP(PP) | | | |
| 14b. Phrasal NP postmodifier | ✓ | ✓ | ✓ |
| 14c. Phrasal NP premodifier | | | |
| 15. Finite verb group complement | | ✓ | |
| 15a. Non-finite complement of verb group | | ✓ | |
| 16. Non-finite verb group complement e.g. *I am going to eat.* | | | |
| 17. Finite adverbial with *before, then, because, soon, now,* and *because, so as* | ✓ | | |

| Language Texts | Text 1 | Text 2 | Text 3 |
|---|:---:|:---:|:---:|
| and *until* | | | |
| 17a. *when/how* | ✓ | | |
| 18. Subordinating conjunctions *before, then* | ✓ | | |
| 19. Comparative clauses *as big as/as fast* 19d. *as* | | ✓ | |
| 20a. *because, where, when, if* | ✓ | | |
| 20b. *when, what, who, about what* | | | |
| 20c. *then* | | | |
| 20d. *what* | | | |
| 20e. Wh- in subordinate clauses | | | |
| 21. Discourse markers (COMP) *now, the, but* | | | |
| 22. Past perfect tense | | | |
| 23. *that* as relative clause marker | | ✓ | |
| 24. Ellipsis/substitution | ✓ | ✓ | |
| 25. Lists | ✓ | | |
| 26. Multiple embedding | ✓ | | |
| 27. Adverbial phrases (PP): Purpose | | | |
| 27a: Time | ✓ | | |
| 27b: Place | ✓ | ✓ | |
| 27c: Manner | ✓ | ✓ | |
| 28. Present participle | | | |
| 29. Past participle | | | |
| 30. Asyndetic co-ordination (no conjunction) | ✓ | ✓ | |
| 31. Possessive | | ✓ | |
| 32. Demonstrative | | ✓ | |
| 33. Existential *there* | ✓ | ✓ | |
| 34. *And* as sentence initial | | | |
| 35. NP in apposition | | | |
| 36. Transposed clause/phrase | ✓ | | |
| 37. Range of conjunctions | *Then, but, now, if* | *but* | *when, then, if* |
| **TOTAL FOR EACH COURSE** | 28 | 25 | |

Text Three has the smallest range of syntactic structures, but this does not detract from the range of topics and pleasing aspect of the text.

## 4.3.5 Vocabulary

| | | | |
|---|---|---|---|
| a | bears | colddrinks | each |
| after | bird | compost | eats |
| again | bottle | cools | empty |
| all | bury | crushed | farmers |
| and | by | cut | fertilizer |
| are | can | damp | fill |
| as | cap | dead | find |
| at | changed | dies | for |
| bank | choose | dig | from |
| be | cleaned | dried | fruit |

| furnace | kitchen | paper | they |
|---|---|---|---|
| garden | label | people | Thiathu |
| give | leaves | porridge | this |
| glass | like | poured | to |
| grow | machine | pulp | torn |
| have | made | put | tree |
| healthy | make | recycled | tub |
| her | manure | roll | up |
| home | melts | rubbish | use |
| hot | minibeasts | see | vocabulary |
| if | mixed | shape | washed |
| in | mould | shops | waste |
| into | natural | soil | weeks |
| is | new | some | when |
| it | offices | supermarket | will |
| item | old | that | with |
| Jo | on | the | |
| keeps | out | then | *106 lexemes* |

## 4.3.6 Academic Language Functions

| Language | Student uses language to: | Examples | L1 RNCS | L2 RNCS | LS first | LS second | LS third |
|---|---|---|---|---|---|---|---|
| 1. Following instructions | Read instructions to make or do something | Interpret information while reading instructions | ✓ | ✓ | ✓ | ✓ | |
| 2. Observing and comparing | Notice things that seem pertinent | Using senses at hand or watch something | ✓ | – | ✓ | ✓ | |
| 3. Seek information | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, and how to collect information in increasing competency | ✓ | – | ✓ | ✓ | |
| 4. Measuring and estimating | Use measuring instruments and making good guess | Use instruments to answer questions that require accurate information | – | ✓ | ✓ | ✓ | |
| 5. Recording | Measure carefully | Write down, make notes, trace and sketch pictures, complete diagrams, fill in data in tables | ✓ | – | ✓ | ✓ | |
| 6. Analyse | Separate whole into parts | Tells parts or features of object or idea | ✓ | ✓ | | ✓ | |

| Language | Student uses language to: | Examples | L1 RNCS | L2 RNCS | LS first | LS second | LS third |
|---|---|---|---|---|---|---|---|
| 7. Compare | Analyse similarities and differences in objects or ideas | Indicate similarities and difference in important parts or features of objects or ideas, outline/ diagram/web. Indicate how A contrasts/ compares with B | – | – | ✓ | ✓ | ✓ |
| 8. Classify | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B, or how A and B go together but not C and D. Explain why things go together | – | – | ✓ | ✓ | ✓ |
| 9. Interpreting information | Interpret information in different forms | Using texts, diaries, drawings, diagrams, models, tables and graphs | ✓ | ✓ | ✓ | – | ✓ |
| 9.1 Changing the form | Interpret different forms of information | Changing forms of information to express understanding | ✓ | ✓ | ✓ | – | ✓ |
| 9.2 Applying concepts | Know when to use concepts and how | Create useful ideas that summarise a number of experiences | ✓ | – | – | – | ✓ |
| 9.3 Making inferences | Infer that which is beyond the obvious | Conclusions based on different sources of information | ✓ | – | ✓ | – | ✓ |
| 9.4 Seeing parts and stating relationships | Try different possibilities and find relations | Describe what has been done and how relationships have been determined | – | – | – | – | ✓ |
| 10. Predict | Another form of interpretation; predict implications | Predict implications from actions or from stated text | ✓ | – | ✓ | ✓ | ✓ |
| 11. Inform | Report, explain, or describe information or procedures | Retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow-charts, posters, diagrams, pie-charts & bar graphs | ✓ | – | ✓ | ✓ | ✓ |
| 12. Hypo-thesise | Hypothesise consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported | ✓ | – | – | ✓ | ✓ |

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| Language | Student uses language to: | Examples | L1 RNCS | L2 RNCS | LS first | LS second | LS third |
|---|---|---|---|---|---|---|---|
| **13. Justify** | Give reasons for an action, a decision, or a point of view | Tell why A is important, why you selected A, or why you believe A | ✓ | – | ✓ | ✓ | |
| **14. Persuade** | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position | ✓ | – | ✓ | ✓ | |
| **15. Solve problems** | Determine solution using models and theories | Given stated problem, reach solution | ✓ | – | – | ✓ | |
| **16. Synthesise** | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem | – | – | – | – | |
| **17. Evaluate** | Assess the worth of an object, opinion or decision | Select or name criteria to evaluate, prioritise a list and explain, evaluate an object or proposition, indicate reasons for agreeing or disagreeing | ✓ | – | – | ✓ | |
| **Conclusion L1** | Total functions =21 | | 16/21 | -- | -- | -- | |
| **Conclusion L2** | Total functions = 5 | | | | 13/21 | 15/21 | 9/21 |

## 4.3.7 Conclusion

Once again we see that Text Three has the narrowest range of academic functions of the three, but it is worthwhile considering the possibility that it is more within the children's natural possible range of functions. One thing that Text One does *ad nauseam* is to "tell your partner" something about the picture or some experience. Whether children can do this without a solid introduction to the topic is a matter for empirical research. The reader is referred to the Summary of Conclusions in Chapter 6, where the actual range of language structures in the language texts is compared with what is covered in the Life Skills and Numeracy texts. These of course are estimates, but the L2 Academic Language Functions are actually counted from the whole of the Learner's Book.

As the reader would have deduced, Text Three is regarded as a very pleasing book that may be more suitable than the other two for the children's level of linguistic competence.

# CHAPTER 5: NUMERACY

## 5.1 Numeracy Text One

### 5.1.1 Introduction

> Numeracy involves a wide range of specific abilities, any of which may prove difficult for particular learners and affect their acquisition of skills. Some of the underlying knowledge and skills involved include the following:
> 1. giving digits/numbers meaning
> 2. *understanding* number concepts and relationships between numbers
> 3. *interpreting* mathematical information
> 4. short-term memory and ability to memorise
> 5. visual perceptual skills
> 6. ability to *perceive* and *predict* patterns
> 7. spatial and measurement skills
> 8. ability to *sequence* and *organise*
> 9. ability to *reason* and think logically
> 10. ability to calculate
> 11. ability to perceive and remember direction
> 12. *language skills*
> 13. *handwriting*/motor skills
> 14. ability to decode an algorithm or numerical task from a *complex problem*
> 15. ability to relate/*choose actions* appropriate to purpose (problem solving)
> 16. ability to abstract from the concrete
> 17. ability to *categorise* and hence identify relationship.
> Numeracy can be subdivided into related categories based on size, shape, space and quantity.
> Learner's difficulties might be limited to a specific area of knowledge or skill[1] (my emphasis).

Above is presented the range of skills pupils must have in order to master Mathematics properly. Many of these skills seem to overlap with language skills or Academic Language Functions (these are the ones that are italicized). Quite possibly we could draw such a list for the learning of L1 or L2, but this is not the task at hand.

It is a brave person who would saunter into the world of the relationship between Mathematics and language. The first reason probably cited is to say that Mathematics is a symbol system of its own and that it is difficult to equate it on any simple level with language. It is, as we have seen, only possible to talk about much of early Mathematics through ordinary language, and then as more complex concepts are introduced, such as the decimal point and fractions, the language of explanation is of paramount importance. A sloppy use of language, or an excessive

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[1] http://www.dfes.gov.uk/curriculum_numeracy/tree/handling/access/

use of code-switching (using two languages) may lead the children to have very unclear concepts. If this situation goes on and concepts are not fully mastered, then Mathematics, always an at-risk subject for phobia, may well show a decline in both performance and attitude.

The mathematical competence of the teachers in L2 schools may be at risk too. Twenty three years ago, regarding performance tests which teachers were asked to do, their performance didn't seem to be much better than that of their learners, but what was of more concern was the language of the teachers when teaching their classes.

What alerted us to the interference of poor language skills on Mathematics was research on different ways of doing Mathematics word problems at the Std 4 (Grade 6) level. These problems were set up as Grade 2 level, and therefore by implication the language was at that level too. Children couldn't read the problems in order to try to convert them to mathematical operations. This finding had significant consequences. Macdonald went on to lead a team (1986-1991) to analyse the school-based learning experiences and the effects of the language policy in the then black education departments.

Compared to the dry and soporific effect of the old Mathematics books, the new books are so vibrant that it is tempting to say that they are about as lively as language books. But there are differences. One can look at the vocabulary and the grammar of the sentences, but after that, language (but see below) analysis as done for Language (L2) and Life Skills books grinds to a halt. There is not sufficient text to look at the use of cohesive devices across sentences, and the concept of linguistic coherence is also not applicable. No doubt a Mathematics expert could look for mathematical coherence.

The question of vocabulary is also somewhat different. There are the everyday words that situate problems, and there is domain-specific language too. Ideally the analysis should keep these separate. However, a great deal of the mathematical language would be introduced in the classroom, and if the teacher is not able to explain the concepts clearly, then even the best book is not going to be able to deliver what it promises.

# 15: All sorts

## Problem solving
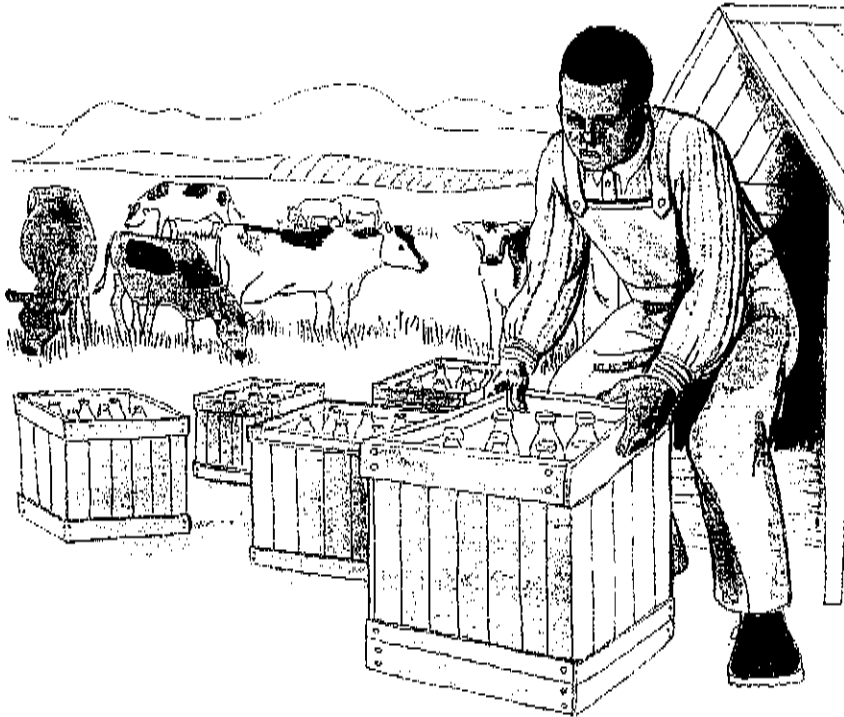


Mandla has packed 52 crates with 6 milk bottles in each.

1.  How many milk bottles is this?
2.  Mandla started off with 600 milk bottles. How many more must he pack?
3.  How many more crates will he need?
4.  He throws 59 cracked milk bottles away. How many are left to pack?
5.  How many crates will he need now?
6.  Mandla takes 5 minutes to pack a crate. How many minutes will it take him to pack all the milk bottles? How many hours?

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# 5.1.2 Academic Language Functions

The Academic Language Functions of Mathematics (ALFs) in Foundation Phase (FP) are something of an eye-opener. The Mathematics Curriculum Statement is very explicit, and so it is possible to see the cognitive skills involved. What is very challenging here is that the pupils would have to know how to express these exponents at the level of an L1 child in order to successfully master the challenges of Mathematics.

A content analysis of whole books has not been conducted vis-à-vis the whole Mathematics Curriculum, so there are some minor things missing in all three extracts. It is now not surprising that the Mathematics books look so different from the old Mathematics books, as it is not computational practice which seems to matter (in fact there may be insufficient practice) in covering the range of tasks in the Learning Outcomes. This analysis may be one of the most important in this entire report.

### 5.1.2.1 Academic Language Functions: Mathematics in the FP

| Language | Student uses language to: | Examples | Maths Cur. Statement FP | L1 FP | L2 FP |
|---|---|---|---|---|---|
| **1. Following instructions** | Read instructions to make or do something | Interpreting information while reading instructions | | ✓ | ✓ |
| **2. Observing and comparing** | Notice things that seem pertinent | Using senses at hand or watch something | | ✓ | – |
| **3. Seek information** | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, and how, to collect information in increasing competency | | ✓ | – |
| **4. Measuring and estimating** | Use measuring instruments and make good guess | Use instruments to answer questions that require accurate information | | – | ✓ |

| Language | Student uses language to: | Examples | Maths Cur. Statement FP | L1 FP | L2 FP |
|---|---|---|---|---|---|
| 5. Recording | Measure carefully | Write down, make notes, trace and sketch pictures, complete diagrams, fill in data in tables | ✓ | ✓ | – |
| 6. Analyse | Separate whole into parts | Tells parts or features of object or idea | | ✓ | ✓ |
| 7. Compare | Analyse similarities and differences in objects or ideas | Indicate similarities and difference in important parts or features of objects or ideas, outline/ diagram/web. Indicate how A contrasts/compares with B | ✓ | – | – |
| 8. Classify | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B, or how A and B go together but not C and D. Explain why things go together | | – | – |
| 9. Interpreting information | Interpret information in different forms | Using texts, diaries, drawings, diagrams, models, tables and graphs | ✓ | ✓ | ✓ |
| 9.1 Changing the form | Interpret different forms of information | Changing forms of information to express understanding | ✓ | ✓ | ✓ |
| 9.2 Applying concepts | Knowing when to use concepts and how | Create useful ideas that summarise a number of experiences | | ✓ | – |
| 9.3 Making inferences | Infer that which is beyond the obvious | Conclusions based on different sources of information | ✓ | ✓ | – |
| 9.4 Seeing parts and stating relationships | Try different possibilities and find relations | Describe what has been done and how relationships have been determined | ✓ | – | – |

| Language | Student uses language to: | Examples | Maths Cur. Statement FP | L1 FP | L2 FP |
|---|---|---|---|---|---|
| **10. Predict** | Another form of interpretation; predict implications | Predict implications from actions or from stated text | ✓ | ✓ | − |
| **11. Inform** | Report, explain, or describe information or procedures | Retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow-charts, posters, diagrams, pie-charts & bar graphs | ✓ | ✓ | − |
| **12. Hypothesise** | Hypothesise consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported | ✓ | ✓ | − |
| **13. Justify** | Give reasons for an action, a decision, or a point of view | Tell why A is important, why you selected A, or why you believe A | ✓ | ✓ | − |
| **14. Persuade** | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position | ✓ | ✓ | − |
| **15. Solve problems** | Determine solution using models and theories | Given stated problem, reach solution | ✓ | ✓ | − |
| **16. Synthesise** | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem | ✓ | − | − |
| **17. Evaluate** | Assess the worth of an object, opinion, or decision | Select or name criteria to evaluate, prioritise a list and explain, evaluate an object or proposition, indicate reasons for agreeing or disagreeing | ✓ | ✓ | − |

| Language | Student uses language to: | Examples | Maths Cur. Statement FP | L1 FP | L2 FP |
|---|---|---|---|---|---|
| **Conclusion L1** | Number of functions = 21 | | | 16/21 | |
| **Conclusion L2** | Number of functions = 5 | | | | 5/21 |

Sources: O'Malley (2007), Moodie (2004) and RNCS (2002) for Home Language (L1) and First Additional Language (L2).

This is a striking finding in this study. The Mathematics curriculum is very robust, and requires a large number of skills. (Notice that the quoted skills at the beginning of this section could be added to this and we would conclude that Mathematics is a formidable subject indeed.) The L2 and Life Skill schemes would have to be very robust in order to support Mathematics, or at least Mathematics that requires the most natural language.

A picture of Mandla is reproduced a few pages back, showing him packing milk bottles into crates. It would qualify as a word problem, and to that must be added that it contains a substantial number of questions that are realistic, but separate. This looks very different from the old Mathematics books, where word problems were highly artificial.

## 5.1.3 Summary of syntactic structures

In this table we can see what constructions were found in the three Mathematics books.

| Numeracy Schemes | Scheme 1 | Scheme 2 | Scheme 3 |
|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | plus complex | ✓ | ✓ |
| 2. Commands, statements and denials | ✓ | ✓ | ✓ |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | ✓ | ✓ |
| 4. *how many* | ✓ | ✓ | |
| 5. *what* | ✓ | ✓ | ✓ |
| 6. Wh- in subordinate clause | ✓ | ✓ | |
| 7. *Yes/No* questions, including auxiliary and modal fronting | ✓ | | |
| 8. Tenses: present, past, present continuous, present perfect | ✓ | ✓ present, past | ✓ present |
| 9. Tense: past perfect | ✓ | | |
| 10. Relative clause with the relative pronoun *who* | ✓ | ✓ | |
| 11. *that* as relative clause marker | ✓ | | ✓ |

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| Numeracy Schemes | Scheme 1 | Scheme 2 | Scheme 3 |
|---|---|---|---|
| 12. Co-ordinating sentences with *and* and *or* | ✓ | ✓ | ✓ |
| 13. Co-odinating phrases with *and* (not *but* or *or*) | ✓ | ✓ | ✓ |
| 14. *or* | | | |
| 15. Passive construction | | | |
| 16. Modal *can* | ✓ | ✓ | ✓ *would* |
| 17. Modal *could* | | | |
| 18. Modal *must* | | ✓ | |
| 19. Modal *may* | | | |
| 20. Non-finite verb group complement Type (I) e.g. *The best thing to do would be (for you) to tell everyone.* | ✓ | ✓ | |
| 21. Nonfinite verb group complement Type (II): e.g. *All I did was (to) hit him.* | | | |
| 22. Non-finite post modifier of NP (PP) | | ✓ | |
| 23. Phrasal NP postmodifier | | | |
| 24. Phrasal NP premodifier | | ✓ | |
| 25. Finite verb group complement | | ✓ | |
| 26. Finite adverbial with *before, then, because, soon, now* and *because, so as,* and *until* | | ✓ | |
| 27. *when, how* | ✓ | ✓ | ✓ *if* |
| 28. Subordinating conjunctions *before, then* | | | |
| 29. Comparative clauses *as big as/as fast as* | | | |
| 30. Subordinating conjunctions *before, then* | | ✓ | |
| 31. *because, where, when* | ✓ | ✓ | |
| 32. *when* | | | |
| 33. *then* | | ✓ | |
| 34. Discourse markers (COMP) *now, then* | ✓ *how many* | | ✓ *how many* |
| 35. Past perfect tense | | | |
| 36. *that* as relative clause marker | | ✓ | ✓ |
| 37. Ellipsis/substitution | ✓ | ✓ | ✓ |
| 38. Lists | ✓ | ✓ | |
| 39. Multiple embedding | ✓ | | ✓ |
| 40. Adverbial phrases (PP): Purpose | | ✓ | |
| 41: Time | ✓ | ✓ | |
| 42: Place | | | |
| 43: Manner | ✓ | | ✓ |
| 44. Present participle | | ✓ | |
| 45. Past participle | | | ✓ |

| Numeracy Schemes | Scheme 1 | Scheme 2 | Scheme 3 |
|---|---|---|---|
| 46. Asyndetic co-ordination | | ✓ | ✓ |
| 47. Possessive | | ✓ | ✓ |
| 48. Demonstrative | | | |
| 49. Existential *there/it* | | | |
| 50. *And* at beginning of the sentence | | | |
| 51. NP in apposition | | | |
| 52. Transposed clause | | | |
| 53. Conjunctions | | *now, how, many, now, follow, join* | *how far, it, how did you.* |
| **TOTAL** | 24 | 32 | 20 |

The number of syntactic structures in this scheme is high – it is as high as Life Skills and some language schemes. What this means is that if learning across the curriculum is not an overt aim of Foundation Phase teaching, then Numeracy is likely to be a victim of the authors' enthusiasm. Notice on the next page that we are dealing with a seemingly simple sentence, yet it has three clauses: can children deal with sentences like this?

After the tree diagram has been presented, we move directly to the list of vocabulary. There are 126 lexemes, and 202 words. This means that there are 62% lexemes to words and only two numbers included. The average sentence length is 6,7 words. This is not a matter for concern, because the meaning in Mathematics is not necessarily contained in complex sentences; in fact, quite the opposite. If truth be told there is a great deal of language compared to the concepts that have to be worked on. By definition, however, word problems need clear language for successful solution.

On the following page is a tree diagram of an apparently simple sentence. It does, however, actually contain three clauses. Remember that all the elided constituents are not literally represented in the child's conception, but they have to be understood as part of understanding the sentence.

**5.1.3.1 Tree diagram**.

*Why are some of the items which Nosipho bought marked with a *?*

## 5.1.4 Vocabulary

*
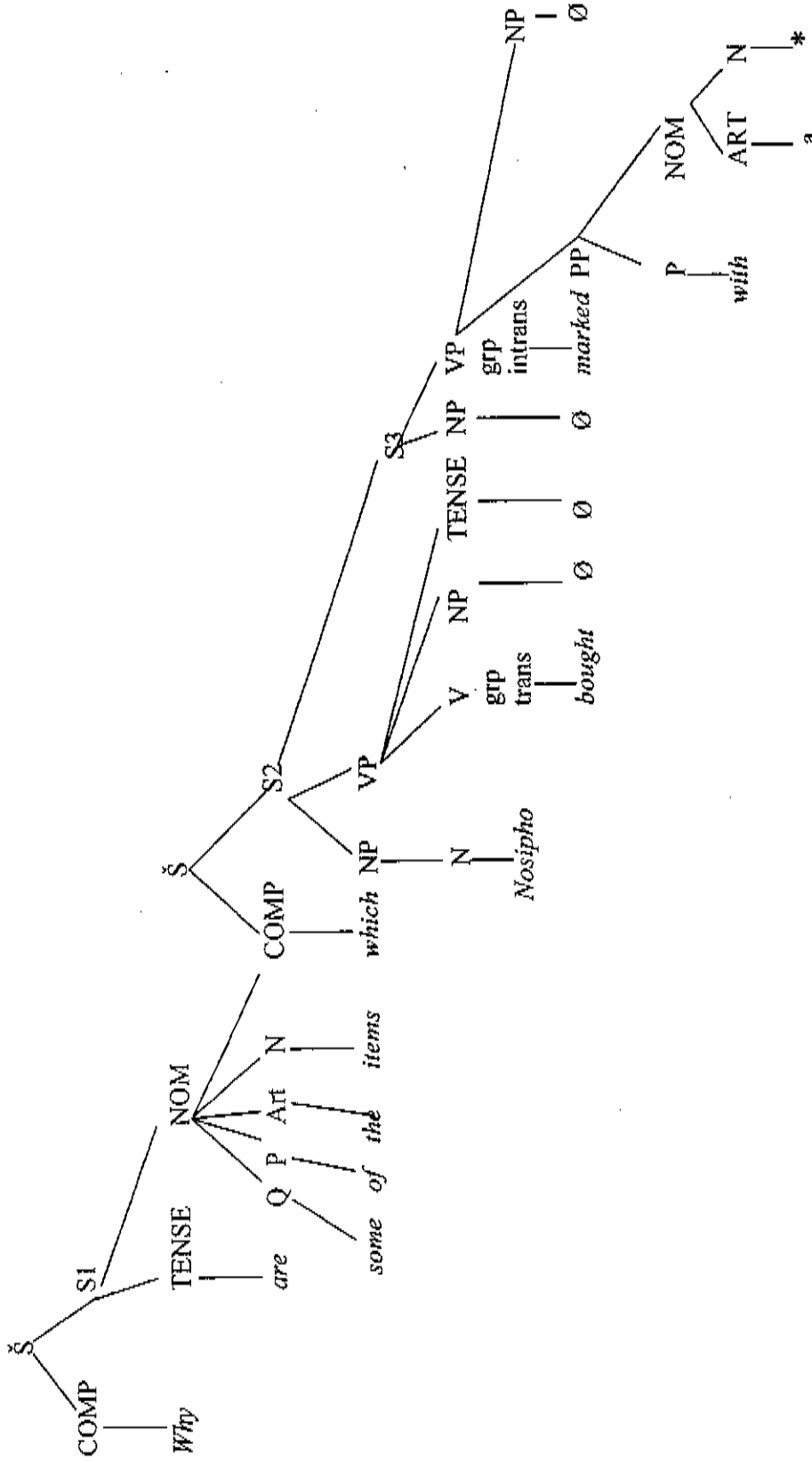
| | | | |
|---|---|---|---|
| 2-D | down | next | symmetrical |
| 3-D | drawing | Nosipho | take |
| 5 | elements | not | the |
| 59 | elephants | now | them |
| 600 | find | objects | these |
| a | find | of | this |
| after | fly | off | throws |
| all | go | on | till |
| and | have | pack | to |
| are | he | pay | topic |
| at | her | place | total |
| away | him | present | triangles |
| before | home | purchases | two |
| bottles | hours | rain | VAT |
| bought | how | receive | was |
| called | impossible | rounding | ways |
| can | in | route | we |
| certain | into | save | week |
| chance | is | scale | what |
| choose | it | scale | which |
| complete | items | school | why |
| conduct | left | shapes | will |
| copy | look | she | with |
| cracked | Mandla | shops | write |
| crate | many | shortest | you |
| data | marked | slip | |
| did | maybe | some | *126 lexemes* |
| different | milk | squares | |
| discount | minutes | started | |
| do | more | supa | |
| | must | supermarket | |
| | name | survey | |

There are 218 words in the extract that was analysed. So there were 58% lexemes relative to the words. There were 7,3 words per sentence, which as has been pointed out, is not puzzling, since the sentences are setting out mathematical problems and therefore do not have to be long.

Words that may be problematic are: "maybe", "impossible", "certain", "construct" and "route". This is an estimate made by a psycholinguist, but may be off the mark. Unfortunately we are unlikely to encounter children dealing with the end of the book, so we cannot be sure what creates difficulties.

On the following page is the list of ALF's for all three texts for the purpose of comparison. What is surprising is the large number of ALFs there are considering that they are usually regarded as language functions. The functions that are missing (i.e. "Analysing", "Hypothesising", "Synthesis", "Justifying" and "Persuading") would seem to be apt for this level, but we would hope that "Measuring" and "Estimating", and "Informing" are to be found elsewhere in the text.

## 5.1.5 Academic Language Functions

| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| 1. Following instructions | Read instructions to make or do something | Interpreting information while reading instructions | ✓ | ✓ | | ✓ | ✓ |
| 2. Observing and comparing | Notice things that seem pertinent | Using senses at hand or watch something | ✓ | – | | – | – |
| 3. Seek information | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, and how, to collect information in increasing competency | ✓ | – | | – | – |
| 4. Measuring and estimating | Use measuring instruments and make good guess | Use instruments to answer questions that require accurate information | – | ✓ | | ✓ | ✓ |

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| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| **5. Recording** | Measure carefully | Write down, make notes, trace and sketch pictures, complete diagrams, fill in data in tables | ✓ | – | | √ | √ |
| **6. Analyse** | Separate whole into parts | Tells parts or features of object or idea | ✓ | ✓ | | ✓ | – |
| **7. Compare** | Analyse similarities and differences in objects or ideas | Indicate similarities and difference in important parts or features of objects or ideas, outline/ diagram/web. Indicate how A contrasts/compares with B | – | – | ✓ | – | – |
| **8. Classify** | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B or how A and B go together but not C and D. Explain why things go together | – | – | – | ✓ | ✓ |
| **9. Interpreting information** | Interpret information in different forms | Using texts, diaries, drawings, diagrams, models, tables and graphs | ✓ | ✓ | ✓ | ✓ | ✓ |
| **9.1 Changing the form** | Interpret different forms of information | Changing forms of information to express understanding | ✓ | ✓ | ✓ | ✓ | ✓ |
| **9.2 Applying concepts** | Know when to use concepts and how | Create useful ideas that summarise a number of experiences | ✓ | – | ✓ | ✓ | – |
| **9.3 Making inferences** | Infer that which is beyond the obvious | Conclusions based on different sources of information | ✓ | – | ✓ | – | ✓ |
| **9.4 Seeing parts and stating relationships** | Try different possibilities and find relations | Describe what has been done and how relationships have been determined | – | – | ✓ | ✓ | – |

| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| 10. Predict | Another form of interpretation; predict implications | Predict implications from actions or from stated text | ✓ | – | ✓ | ✓ | – |
| 11. Inform | Report, explain, or describe information or procedures | Retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow-charts, posters, diagrams, pie-charts & bar graphs | ✓ | – | | ✓ | ✓ |
| 12. Hypothesise | Hypothesise consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported | ✓ | – | | – | – |
| 13. Justify | Give reasons for an action, a decision, or a point of view | Tell why A is important, why you selected A, or why you believe A | ✓ | – | | ✓ | ✓ |
| 14. Persuade | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position | ✓ | – | | – | – |
| 15. Solve problems | Determine solution using models and theories | Given stated problem, reach solution | ✓ | – | | ✓ | ✓ |
| 16. Synthesise | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem | – | – | | – | – |
| 17. Evaluate | Assess the worth of an object, opinion, or decision | Select or name criteria to evaluate, prioritize a list and explain, evaluate an object or proposition, indicate reasons for agreeing | ✓ | – | | – | – |

| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| | | or disagreeing | | | | | |
| **Conclusion L1** | Number of functions = 21 | | 16/21 | | | | |
| **Conclusion L2** | Number of Functions = 5 | | | 5/21 | 21 | 13/21 | 11/21 |

Sources: O'Malley (2007), Moodie (2004) and RNCS (2002) for Home Language (L1) and First Additional Language (L2).

### 5.1.6 Conclusion

It is difficult to make any definitive conclusions given that the writer is not a mathematician, but the new aspects of these books have been pointed out.

Looking across from the Mathematics Curriculum to the eleven functions for the first text, we must once again make the qualification that more functions might have been found, had a large sample been analysed. As it is, a mathematician should check this analysis.

We turn now to the second scheme, which is a new publication.

## 5.2 Numeracy Text Two

### 5.2.1 Introduction

The following comes from *Mathematics and the Imagination* by Edward Kasner and James Newman. The book was first published in 1940. The quote comes from the 16th printing (1958).

> Alice was criticizing Humpty Dumpty for the liberties he took with words: "When I use a word," Humpty replied, in a scornful tone, "it means just what I choose it to mean – neither more nor less." "The question is," said Alice, "whether you *can* make a word mean so many different things." "The question is," said Humpty, "which is to be master, that's all."
>
> Those who are troubled (and there are many) by the word "imaginary" as it is used in Mathematics, should hearken unto the words of H. Dumpty. At most, of course, it is a small matter. In Mathematics familiar words are repeatedly given technical meanings. But as Whitehead has so aptly said, this is confusing only to minor intellects. When a word is precisely defined, and signifies only one thing, there is no more reason to criticize its use than to criticize the use of a proper name. Our Christian names may not suit us, may not suit our friends, but they occasion little misunderstanding. Confusion arises only when the same word packs several meanings and is what Humpty D. calls a "portmanteau."

In this comical exchange between Alice and Humpty Dumpty, we are faced with the notion that a word means what a person says it means. Now if that were actually the case, very little genuine communication would happen, unless H. Dumpty's definitions prevail. This would be a strange world indeed. And then, those of us who are scared of Mathematics – not a few – Whitehead says we have "minor intellects". Well, that's us labelled.

It is, however, the job of teachers to teach concepts precisely and to differentiate them from the meaning of everyday meanings. We are faced with an extra level of complexity when we are faced with Mathematics when taught in Grade 1 or Grade 2. We may be faced with children learning some kind of meaning of mathematical words, but the concepts are fuzzy, because the child has no hooks to hang the concept on. To establish whether this is the case is very difficult indeed, and we would probably have to return to the child's mother tongue to get to the concepts. In this case we are dealing with three languages.

Having said this, the current Numeracy books have a lot of English in it, and not simple computations as was the case a few years ago. Although the books are very attractive indeed, the practical question remains: Can the learners understand the English, and can they be helped to do the Mathematics itself?

## Timetable

Masifundise's school fair is from 9:30 until 2 o'clock.

1.  a)  How many hours long is it?
    b)  Belinda's class need to get there 1 hour early.
        What time do the class need to be at school?



2.  They take turns to work at their stall. They each work for 45 minutes.
    Write down and show on your model clock the times that each person works.

| Person | Starting time | Ending time |
| --- | --- | --- |
| Neo, Jon, Chad | | |
| Dimitri, Betina, Ncumisa | | |
| Avril, Kabelo, Jan | | |
| Monica, Chelsea, Tiro | | |
| Mika, Prenovan, Kgetsi | | |
| Manie, Aaron, Mogadi | | |
| Meshak, Val, Thembi | | |

**Assessment focus**
*   Calculate time in hours and minutes
*   Read and draw up a simple timetable or roster
*   Solve problems about time in different contexts

**Ask learners to:**
*   Work out how long it is between the start of school and the 1st breaktime, 1st and 2nd breaktimes, 2nd breaktime and hometime.
*   Also work out the length of various lessons and extra-curricular activities if given the starting and ending times.

English Gr 3 LB

The way in which Mathematics is written means that we can't really assess the range of cohesive devices – most of the problems are not longer than one sentence long – and even if there are many problems around one topic, these problems are not cohesively linked. The same applies to coherence; this concept is for dealing with extended text. So we are left with the syntax of the problems, and the range of vocabulary (apart from the numbers themselves). Hence the analysis of Numeracy is a great deal shorter than the analysis of the other two Learning Areas.

## 5.2.2 Summary of syntactic structures

| Numeracy Schemes | Scheme 1 | Scheme 2 | Scheme 3 |
|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ plus complex | | ✓ |
| 2. Commands, statements and denials | ✓ | | ✓ |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | | ✓ |
| 4. *how many* | ✓ | | |
| 5. *what* | ✓ | | ✓ |
| 6. Wh- in subordinate clause | | | |
| 7. *Yes/No* questions, including auxiliary and modal fronting | | | |
| 8. Tenses: present, past, present continuous, present perfect | ✓ | ✓ present past | ✓ present |
| 9. Tense: past perfect | | | |
| 10. Relative clause with the relative pronoun *who* | | ✓ | |
| 11. *that* as relative clause marker | | | ✓ |
| 12. Co-ordinating sentences with *and* and *or* | ✓ | ✓ | ✓ |
| 13. Co-odinating phrases with *and* (not *but* or *or*) | ✓ | ✓ | ✓ |
| 14. *or* | | | |
| 15. Passive construction | | | |
| 16. Modal *can* | ✓ | ✓ | ✓ would |
| 17. Modal *could* | | | |
| 18. Modal *must* | | ✓ | |
| 19. Modal *may* | | | |
| 20. Non-finite verb group complement Type (I) e.g. *The best thing to do would be (for you) to tell everyone.* | ✓ | ✓ | |
| 21. Nonfinite verb group complement Type (II) e.g. *All I did was (to) hit him.* | | | |

| Numeracy Schemes | Scheme 1 | Scheme 2 | Scheme 3 |
|---|---|---|---|
| 22. Non-finite post modifier of NP (PP) | | ✓ | |
| 23. Phrasal NP postmodifier | | ✓ | |
| 24. Phrasal NP premodifier | | ✓ | |
| 25. Finite verb group complement | | ✓ | |
| 26. Finite adverbial with *before, then, because, soon, now* and *because, so as,* and *until* | | ✓ | |
| 27. *when, how* | ✓ | ✓ | ✓ *if* |
| 28. Subordinating conjunctions *before, then* | | | |
| 29. Comparative clauses *as big as/as fast as* | | ✓ | |
| 30. Subordinating conjunctions *before, then* | | ✓ | |
| 31. *because, where, when* | ✓ | ✓ | |
| 32. *when* | | ✓ | |
| 33. *then* | | ✓ | |
| 34. Discourse markers (COMP) *now, then* | ✓ *how many* | | ✓ *how many* |
| 35. Past perfect tense | | ✓ | ✓ |
| 36. *that* as relative clause marker | | ✓ | ✓ |
| 37. Ellipsis/substitution | ✓ | ✓ | |
| 38. Lists | ✓ | ✓ | |
| 39. Multiple embedding | ✓ | ✓ | ✓ |
| 40. Adverbial phrases (PP): Purpose | | ✓ | |
| 41: Time | ✓ | ✓ | |
| 42: Place | | ✓ | |
| 43: Manner | ✓ | ✓ | ✓ |
| 44. Present participle | | ✓ | ✓ |
| 45. Past participle | | ✓ | ✓ |
| 46. Asyndetic co-ordination | | ✓ | ✓ |
| 47. Possessive | ✓ | ✓ | |
| 48. Demonstrative | ✓ | | |
| 49. Existential *there/it* | ✓ | | |
| 50. *And* at beginning of the sentence | | | |
| 51. NP in apposition | | | |
| 52. Transposed clause | | | |
| 53. Conjunctions | *how many, the first, one, here, how far, after, how much* | *now, how, many now, follow, join* | *how far, it, how did you.* |
| **TOTAL** | 24 | 32 | 20 |

The only comment to be made here is that there is a wide range of syntactic structures in relation to the other texts, but also in relation to the other Learning Areas. Is this the case with Academic Language Functions as well? There is a tree diagram of a sentence, which has got two conjunctions and an embedded clause, on the following page.

### 5.2.2.1 Tree diagram

*How many equal parts will you see when you unfold the paper?*
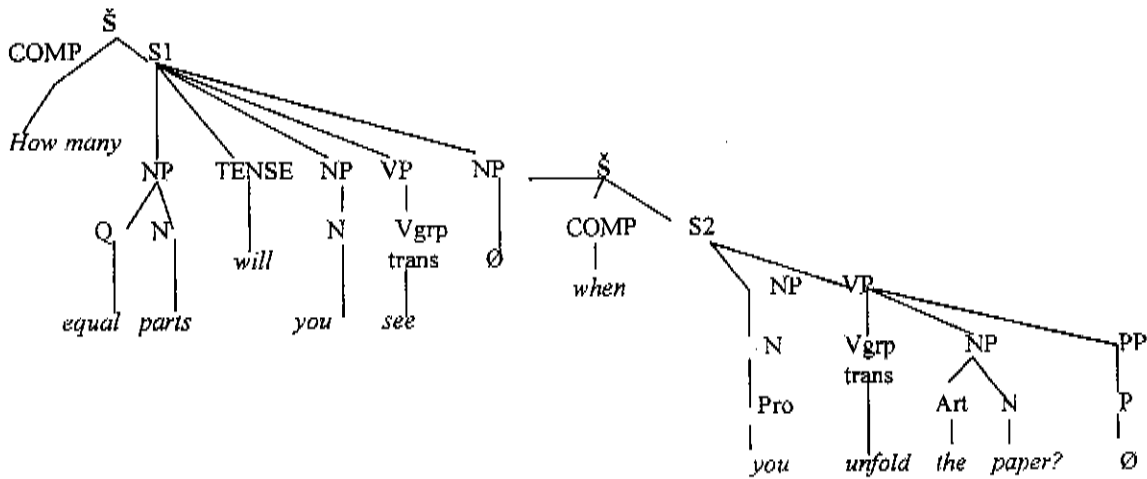


### 5.2.3 Vocabulary

| | | |
|---|---|---|
| 1 | class | how |
| 125 | clock | if |
| 2 | columns | in |
| 3 | concertinas | into |
| 45 | cut | is |
| 9:30 | diagonals | it |
| a | divide | Jan |
| about | do | kilograms |
| above | down | learners |
| add | draw | like |
| again | each | look |
| along | early | make |
| and | equal | many |
| another | fair | marked |
| answers | fold | Masifundise |
| are | for | match |
| at | from | middle |
| be | get | minutes |
| Belinda's | gram | model |
| bottom | grid | must |
| buy | half | needs |
| call | has | numbers |
| check | he | o'clock |
| child's | here | objects |
| circle | hours | on |

| | | |
|---|---|---|
| or | square | top |
| out | stall | triangles |
| own | sugar | ⚬ turns |
| packets | take | two |
| paper | team | unfolded |
| part | teams | until |
| patterns | that | up |
| person | the | what |
| picture | their | when |
| remember | them | where |
| repeat | then | will |
| rows | there | with |
| say | these | work |
| school | they | works |
| see | think | write |
| shapes | this | you |
| show | three | your |
| sides | time | |
| small | to | *108 lexemes* |

There are 354 words in this text, so the proportion of lexemes to words is 30,5%, and this would seem to be because children were doing sets of similar exercises. There are 11,8 words per sentence. It is difficult to determine which of the words would create difficulty – it may be a mixture of Mathematics and everyday words. I would suggest: "columns", "concertina", "fair", "grid", "middle", "patterns", "turns" and "repeats."

## 5.2.4 Academic Language Functions

| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| **1. Following instructions** | Read instructions to make or do something | Interpreting information while reading instructions | ✓ | ✓ | ✓ | | ✓ |
| **2. Observing and comparing** | Notice things that seem pertinent | Using senses at hand or watch something | ✓ | – | ✓ | | – |
| **3. Seek information** | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, and how to collect information in increasing competency | ✓ | – | ✓ | | – |
| **4. Measuring and estimating** | Use measuring instruments and | Use instruments to answer questions that | – | ✓ | – | ✓ | ✓ |

| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| | make good guess | require accurate info | | | | | |
| 5. Recording | Measure carefully | Write down, make notes, trace and sketch pictures, complete diagrams, fill in data in tables | ✓ | – | – | ✓ | ✓ |
| 6. Analyse | Separate whole into parts | Tells parts or features of object or idea | ✓ | ✓ | – | ✓ | – |
| 7. Compare | Analyse similarities and differences in objects or ideas | Indicate similarities and difference in important parts or features of objects or ideas, outline/diagram/web. Indicate how A contrasts/compares with B | – | – | ✓ | | – |
| 8. Classify | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B, or how A and B go together but not C and D. Explain why things go together | – | – | – | ✓ | ✓ |
| 9. Interpreting information | Interpret information in different forms | Use texts, diaries, drawings, diagrams, models, tables and graphs | ✓ | ✓ | ✓ | ✓ | ✓ |
| 9.1 Changing the form | Interpret different form of information | Changing forms of information to express understanding | ✓ | ✓ | ✓ | ✓ | ✓ |
| 9.2 Applying concepts | Know when to use concepts and how | Create useful ideas that summarise a number of experiences | ✓ | – | ✓ | ✓ | – |
| 9.3 Making inferences | Infer what is beyond the obvious and why | Conclusions based on different sources of information | ✓ | – | ✓ | – | ✓ |
| 9.4 Seeing parts and stating relationships | Try different possibilities and find relations | Describe what has been done and how relationships have been formed | – | – | ✓ | ✓ | – |
| 10. Predict | Another form of | Predict implications | ✓ | – | ✓ | ✓ | – |

| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| | interpretation; predict implicatns | from actions or from stated text | | | | | |
| **11. Inform** | Report explain, or describe information or procedures | retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow charts, posters, diagrams, pie charts and bar graphs | ✓ | — | — | ✓ | ✓ |
| **12. Hypothesise** | Hypothesise consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported | ✓ | — | — | ✓ | — |
| **13. Justify** | Give reasons for an action, a decision or a point of view | Tell why A is important, why you selected A, or why you believe A | ✓ | — | — | ✓ | ✓ |
| **14. Persuade** | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position | ✓ | — | — | | — |
| **15. Solve problems** | Determine solution using models and theories | Given stated problem, reach solution | ✓ | — | ✓ | ✓ | ✓ |
| **16. Synthesise** | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem | — | — | — | — | — |
| **17. Evaluate** | Assess the worth of an object, opinion, or decision | Select or name criteria to evaluate, prioritise a list and explain, evaluate an object or proposition, indicate reasons for agreeing or disagreeing | ✓ | — | — | | — |
| **Types L1** | Number of functions = 21 | | 16/21 | | | | |
| **Types L2** | Number of | | | 5/21 | 11/21 | 13/21 | 11/21 |

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| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| | functions = 5 | | . | | | | |

This course has a robust set of ALF's. There are only three – "Observing and comparing", "Making inferences" and "Making comparisons" – which one might have expected here, but they may well occur elsewhere in the book.

## 5.2.5 Conclusion

The reader needs to be reminded that the Mathematics books were not scoured for all possible ALFs, but that this analysis is derived from the 30 sentences. Since that is the case, 21 ALFs in Mathematics would seem to indicate that Mathematics requires a robust field of ALFs. It should indicate to us to do a further analysis just to see how much further we need to go. In any case, most of these functions require language, and to all intents and purposes, in these texts, a great deal of language competence is required, as well as mathematical language.

It may be contended that this book is the best of the three books analysed. It is a completely new series, so a great deal of imagination has been brought to the task of writing it. We, however, once again face the question of whether the children will be competent to its demands.

## 5.3 Numeracy Text Three

### 5.3.1 Introduction

The language of Mathematics:

> Many learners will have problems with the language of maths more than with maths itself.
> There are many words for each operation in numeracy. These are often everyday words that are used much more precisely in maths, e.g. *difference, share, product.*

> The use of several words for one operation may also affect the order of the calculation, for instance '15 take away 2' is the same as '2 from 15'. These can cause problems for learners with sequencing or directional difficulties, as well as those with difficulties manipulating language or dealing with multiple meanings.

> When doing a word problem, learners may become confused because of the vocabulary, sentence structure or sequence in which the problem is presented.
>
> It is important to identify whether learners are having difficulty with the maths or the language, and to make issues in the language of maths explicit to learners.
>
> All learners with learning difficulties or disabilities are likely to need constant repetition and revision of past learning. This is particularly important in terms of language and mental operations. The language of Mathematics and the ability to calculate mentally are fundamental. Learners with basic skills often lack or have inadequate language and mental strategies, which have contributed to their 'failure' with formal, standard methods of representing calculations. These difficulties are increased for learners with learning difficulties and disabilities.
>
> Concrete materials are important for all learners but doubly so for learners experiencing difficulties. Mathematics involves concepts; these cannot be assimilated without actual experience. [2]

In this quotation above, we come up against two problems that we have pointed out previously: the first is understanding the language of word problems; the second, and more difficult, is to decide whether the child is having problems with the language or the Mathematics – this is an ongoing task for the teacher to diagnose.

The third text here is an imprint of the publishers of the first text, and definitely more down-market. It is printed on inferior paper under the guise of being a workbook, and there is no colour. It certainly lacks the vitality of the second text, which is regarded here as the best. Nevertheless the Mathematics may be entirely adequate. One of the last activity sheets in the book is reproduced below. The boring appearance conceals quite an interesting task.

---

[2] www.dfes.gov.uk/curriculum_numeracy/trec/handline/access

Head coverings

## Activity sheet 45

Work with your group to measure and cut a strip of brown paper or newspaper 1 m long and 4 cm wide. Your shape will look similar to this:

| 0 cm | | | | 100 cm |
|------|--|--|--|--------|
| | | | | |
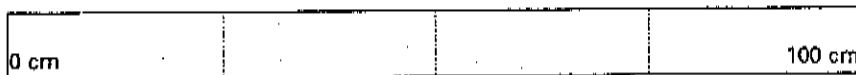
Fold and cut

Fold the strip in half and cut on the fold.

Measure the half strip.

Write your measurements here:

Each half is ..................... cm long.

Each half is ..................... m long.

Fold each half in half again. Now you have a quarter of a metre.

Each ¼ m is ..................... cm long.

Use a metre strip to measure things in the classroom.

| Things shorter than 1 m | Things exactly 1 m long |
|-------------------------|-------------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

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## 5.3.2 Summary of syntactic structures

| Numeracy Schemes | Scheme 1 | Scheme 2 | Scheme 3 |
|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ plus complex | ✓ | ✓ |
| 2. Commands, statements and denials | ✓ | ✓ | |
| 3. Wh- questions with words like *who, how* and *how much* | ✓ | ✓ | |
| 4. *how many* | ✓ | ✓ | |
| 5. *what* | ✓ | ✓ | |
| 6. Wh- in subordinate clause | | ✓ | |
| 7. *Yes/No* questions, including auxiliary and modal fronting | | | |
| 8. Tenses: present, past, present continuous, present perfect | ✓ | ✓ present, past | ✓ present |
| 9. Tense: past perfect | | | |
| 10. Relative clause with the relative pronoun *who* | | ✓ | |
| 11. *that* as relative clause marker | | | |
| 12. Co-ordinating sentences with *and* and *or* | ✓ | ✓ | ✓ |
| 13. Co-odinating phrases with *and* (not *but* or *or*) | ✓ | ✓ | ✓ |
| 14. *or* | | | |
| 15. Passive construction | | | |
| 16. Modal *can* | ✓ | ✓ | ✓ would |
| 17. Modal *could* | | | |
| 18. Modal *must* | | ✓ | |
| 19. Modal *may* | | | |
| 20. Nonfinite verb group complement Type (I), e.g. *The best thing to do would be (for you) to tell everyone*. | ✓ | ✓ | |
| 21. Non-finite verb group complement Type (II), e.g. *All I did was (to) hit him.* | | | |
| 22. Non-finite post modifier of NP (PP) | | ✓ | |
| 23. Phrasal NP postmodifier | | | |
| 24. Phrasal NP premodifier | | ✓ | |
| 25. Finite verb group complement | | ✓ | |
| 26. Finite adverbial with *before, then, because, soon, now* and *because, so as,* and *until* | | ✓ | |
| 27. *when, how* | ✓ | ✓ | ✓ if |
| 28. Subordinating conjunctions *before, then* | | | |

| | | | |
|---|---|---|---|
| 29. Comparative clauses *as big as/as fast as* | | | |
| 30. Subordinating conjunctions *before, then* | | ✓ | |
| 31. *because, where, when* | ✓ | ✓ | |
| 32. *when* | | | |
| 33. *then* | | ✓ | |
| 34. Discourse markers (COMP) *now, then* | ✓ *how many* | | ✓ *how many* |
| 35. Past perfect tense | | | |
| 36. *that* as relative clause marker | | ✓ | ✓ |
| 37. Ellipsis/substitution | ✓ | ✓ | ✓ |
| 38. Lists | ✓ | ✓ | ✓ |
| 39. Multiple embedding | ✓ | | ✓ |
| 40. Adverbial phrases (PP): Purpose | | ✓ | |
| 41: Time | ✓ | ✓ | |
| 42: Place | | | |
| 43: Manner | ✓ | | ✓ |
| 44. Present participle | | ✓ | |
| 45. Past participle | | | ✓ |
| 46. Asyndetic co-ordination | | ✓ | |
| 47. Possessive | ✓ | ✓ | ✓ |
| 48. Demonstrative | ✓ | | |
| 49. Existential *there/it* | ✓ | | |
| 50. *And* at beginning of the sentence | | | |
| 51. NP in apposition | | | |
| 52. Transposed clause | | | |
| 53. Conjunctions | *how many, the first, one, here, how far, after, how much* | *now, how, many, now, follow, join* | *how far, it how did you* |
| **TOTAL** | 24 | 32 | 20 |

Despite the rather inferior texture of the paper and the austerity of the illustrations, there are a number of challenging exercises, which may be seen in the fact that Text One and Text Three have nearly the same number of different syntactic clauses.

The tree diagram on the next page is the first sentence in Activity 3 (the illustration earlier). It has a command and then two non-finite verbs, the second with ellipsis, and then ellipsis of a relative as well: "... a strip of brown paper <u>which is</u> 1m long and 4cm wide."

### 5.3.2.1 Tree diagram

*Work with your group to measure and cut a strip of brown paper or newspaper 1m long and 4cm wide.*

S1
NP VP
Ø Vgrp PP
intrans P NOM
Work with poss N
your group

S2
NP VP — and — VP
Ø Vgrp Vgrp
nonfinite nonfinite
op V op V
to measure Ø cut

NP
Art N PP
a strip P NOM
of NOM — or — NOM
Adj N N
brown paper newspaper

Š
Comp S3
Ø NP VP
Ø Ø PP — and — PP
1 metre long 4 cm wide

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## 5.3.3 Academic Language Functions

| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| **1. Following instructions** | Read instructions to make or do something | Interpreting information while reading instructions | ✓ | ✓ | ✓ | ✓ | ✓ |
| **2. Observing and comparing** | Notice things that seem pertinent | Using senses at hand or watch something | ✓ | – | ✓ | – | |
| **3. Seek information** | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, and how to collect information in increasing competency | ✓ | – | ✓ | – | |
| **4. Measuring and estimating** | Use measuring instruments and make good guess | Use instruments to answer questions that require accurate information | – | ✓ | – | ✓ | |
| **5. Recording** | Measure carefully | Write down, make notes, trace and sketch pictures, complete diagrams, fill in data in tables | ✓ | – | – | ✓ | ✓ |
| **6. Analyse** | Separate whole into parts | Tells parts or features of object or idea | ✓ | ✓ | – | ✓ | |
| **7. Compare** | Analyse similarities and differences in objects or ideas | Indicate similarities and difference in important parts or features of objects or ideas, outline/ diagram/web. Indicate how A contrasts/compares with B | – | – | ✓ | – | |
| **8. Classify** | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B, or how A and B go together but not C and D. Explain why things go together | – | – | – | ✓ | ✓ |

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| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| **9. Interpreting information** | Interpret information in different forms | Using texts, diaries, drawings, diagrams, models, tables and graphs | ✓ | ✓ | ✓ | ✓ | |
| **9.1 Changing the form** | Interpret different forms of information | Changing forms of information to express understanding | ✓ | ✓ | ✓ | ✓ | ✓ |
| **9.2 Applying concepts** | Know when to use concepts and how | Create useful ideas that summarise a number of experiences | ✓ | – | ✓ | ✓ | – |
| **9.3 Making inferences** | Infer what is beyond the obvious and why | Conclusions based on different sources of information | ✓ | – | ✓ | – | ✓ |
| **9.4 Seeing parts and stating relationships** | Try different possibilities and find relations | Describe what has been done and how relationships have been formed | – | | ✓ | ✓ | ✓ |
| **10. Predict** | Another form of interpretation; predict implications | Predict implications from actions or from stated text | ✓ | – | ✓ | ✓ | |
| **11. Inform** | Report explain, or describe information or procedures | Retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow charts, posters, diagrams, pie charts and bar graphs | ✓ | – | – | ✓ | ✓ |
| **12. Hypo-thesise** | Hypothesise consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported | ✓ | – | – | – | |
| **13. Justify** | Give reasons for an action, a decision or a point of view | Tell why A is important, why you selected A, or why you believe A | ✓ | – | – | ✓ | ✓ |

| Language | Student uses language to: | Examples | L1 | L2 | Num first | Num second | Num third |
|---|---|---|---|---|---|---|---|
| **14. Persuade** | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position | ✓ | – | – | – | |
| **15. Solve problems** | Determine solution using models and theories | Given stated problem, reach solution | ✓ | – | ✓ | ✓ | ✓ |
| **16. Synthesize** | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem | – | – | – | – | |
| **17. Evaluate** | Assess the worth of an object, opinion, or decision | Select or name criteria to evaluate, prioritise a list and explain, evaluate an object or proposition, indicate reasons for agreeing or disagreeing | ✓ | – | – | – | |
| **Conclusion L1** | Number of functions = 21 | | 16/21 | | | | |
| **Conclusion L2** | Number of functions = 5 | | | 5/21 | 11/21 | 13/21 | 11/21 |

Sources: O'Malley (2007), Moodie (2004) and RNCS for Home Language (L1) and First Additional Language (L2).

What we have seen from this text is that appearances can be deceptive. It isn't an attractive course, but one that is cognitively demanding that we are looking for. Text Three has a similar profile to the other courses, and like them, some of the functions must be interpreted at quite a low-level, for example, hypothesising.

### 5.3.4 Conclusion

Probably the most important aspect of this analysis of Numeracy is the language of the Mathematics that the children are learning. The concepts should be very clear to the children, and code-switching the actual explanation of a concept is not likely to be helpful. However, because parents want their children to learn in English (even though Text One comes from a

course that has an African-language version of the English available), they are definitely putting a strain on the Mathematics learning of their children. The teachers' competence is a factor that must be taken into account. Finally, the long list given at the beginning of this chapter gives a clear idea of the range of skills implicit in doing Mathematics, along with the language skills needed (italicized in the list). Ideally there should be an examination of the performance of L1 children using any of these texts/courses, and a comparison with L2 children using the same ones. Added to this, it would be very helpful if an African-language researcher could take the children through some of the concepts in their home language, and see to what extent it is helpful, and which concepts are still fuzzy. This could be done with Text One, which is translated into all of the official African languages.

# CHAPTER 6: SUMMARY OF CONCLUSIONS

## 6.1 Introduction

The purpose of this analysis has been to compare the levels of language structure between the first language (L1 or Home Language), second language (L2 or First Additional Language), Life Skills and Numeracy texts for the Foundation Phase. The initiators of this analysis are the Limpopo Department of Education and Irish Aid. There are many language schemes on the market, but the three L2 schemes analysed included two best-selling schemes as well as a scheme specifically asked for by Irish Aid. These schemes are not identified by name, but simply by number, since their identity *per se* is not at issue. What is at issue is the nature of the texts to which the teachers and children are exposed. Thirty sentences at the *end* of the books/ schemes/ readers were analysed. The coherence, cohesion, syntax, vocabulary and Academic Language Functions (ALFs) were analysed for each one. This applied to all four types of books/ readers/ schemes.

Sourcing the L2 schemes was relatively easy, because these books were on the Limpopo English list, and they are published by large publishing companies. But L1 books were more problematic. There did not appear to be a L1 series on the English list[1]. Time was also an issue – it was the end of the 2006 school year, and so we sourced books from schools that closed late; we used a story book – that was prescribed – and stories from well-known reading schemes. Four reading books (in particular, stories from the end of the books) were analysed. None of these reading schemes are published by South African publishing houses.

Three Life Skills books were selected. The first two books were paired with the L2 schemes 1 and 2 mentioned above. The third LS book was published by an imprint of the first scheme.

The Numeracy (Mathematics) books were analysed linguistically –which probably doesn't do them full justice – and coherence and cohesion were omitted as being inappropriate. It is

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[1] We were given the 2003/4 distribution list.

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clear that a great deal of imagination has gone into their design and teaching methods as compared to books of a decade or two ago.

## 6.2 Syntactic (grammatical) structures

With a non-technical analysis of L1 and L2 schemes, we would suppose that L1 texts would have considerably greater range of grammatical structures, as well as having a wider range of vocabulary than the L2 books. However, what would this proportion be, and would it be the same for both aspects? In this study, there was 25% more vocabulary in L1. However, there was only 5% more syntactic structures in L1 as compared with L2. There are two interpretations here: either the L2 books are reaching some sort of ceiling at this level, or else there are simply too many types of syntactic structures for this level and the learners will flounder. It should be noted that if the difference of 25% in vocabulary is sustained, in real terms the number of new words will grow proportionally, to the disadvantage of the L2 children.

There seems to be a *relatively* wider range of syntactic structures in the L2 texts than in the L1 texts: 105/110 structures (95%), where 105/140 (75%) structures would have been expected (given the wider range of vocabulary noted above). For L2 the Life Skills texts yielded an even narrower range, i.e. 68 syntactic structures, or 62% of those found in the L1 texts. Given that structures are not counted if there is more than one instance, it may be that the ranges might not be so disparate if an absolute count of tokens rather than single *or more than* instances were to be made. There was a slightly higher range in the Numeracy than in the Life Skills. A conceptual analysis of L1 Life Skills content was also made to see how it matched L2. Ostensibly they matched (with the same Unit headings) but in fact covered very different issues in their lessons.

The syntactic structures do not yet show the difficult constructions in Learning Area textbooks (Perera, 1984, 1986). These include complex Noun Phrases/ Clauses as the subject of the sentence, as well as interrupting constructions, amongst others. It may be that these constructions will only appear from Grade 4 and later. This is a supposition, as these may

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only occur, for example, at the end of Intermediate and the beginning of Senior Phase (Grades 6 and 7). Books would need to be examined to see when this phenomenon begins.

## 6.3 Vocabulary

Rather more different is the composite count of *lexemes*. (A lexeme is a foundation word, e.g. words such as "find", "finds" and "finding" are counted as one lexeme.) One of the particularly weak L1 texts was excluded (No. 3), and so a direct comparison could not be made (three L2 versus three L1 texts). There were 285 lexemes in the L2 texts, and 390 lexemes were found in the L1 texts: 105 more lexemes. The ratio of L2:L1 is therefore 73%. If this ratio was to be found to be consistent over whole courses[2], then this difference would run into thousands of words in the Intermediate Phase, and give a very considerable advantage to the L1 children, that is, assuming the latter all actually understand these words themselves. This assumption should probably be tested.

Words such as the following, from the L1 texts (excluding No 3) might prove a real challenge to L2 children:

"amazing", "handy", "organs", "warm-blooded", "weight", "Pacific", "protect", "released", "wild", "attacked", "baby's" (possessive), "beside", "buried", "companion", "faithful", "half-hidden", "happened", "horrified", "realised", "rugs", "upturned", "wept", "adopted", "anymore", "beside", "even", "ever", "every", "handed", "hidden", "no-one", "nothing", "overhead", "that's", "trotted".

Looking at the Schemes of Work from two private schools, it is clear that phonics and spelling play a much greater part in the Languages Curriculum than was found in the L2 schemes. Children here are also expected to do much more free writing, which is more difficult for L2 children. These aspects are also likely to widen the gap between L1 and L2 over the years. Finally, the L1 children are expected to start writing projects from Grade 2, which would develop their facility with expository texts earlier.

## 6.4 Cohesion

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[2] When L1 reaches 500 lexemes, there would be an estimate of 365 lexemes for L2.

Cohesive devices are the "glue" that holds sentences together. There is an example on the next page:

> Reuben and Neo were walking home when they saw something they had never seen before. It was a great big balloon tied to a basket. The balloon had red and yellow stripes. The basket was big enough for two people. Next to the balloon was a little man with a long beard. He was very upset.

The connectives "when" and "next to" are easy to recognise as connectives. "They" referring back to "Reuben" and Neo", is strictly speaking, not a cohesive device because they occur in the same sentence, but it would be very strange if their names were repeated. (The use of the connective separates the two clauses.) "It" refers back to "something", "the" refers to "a" and the "balloon" is a repetition. "He" refers to the "little man". People writing for early readers often don't use these cohesive devices and prefer to write sentences that are short and have very few cohesive devices. We call this "impoverished text"[3] especially if the connectives are missing, because it is difficult for the children to work out the connections between the sentences, especially if the content of the text is unfamiliar.

The counting of cohesive devices also yields a potentially complex situation. It is directly affected by the length of the sentences. If there are fewer words in a sentence, then it is theoretically possible to have more cohesive devices, because cohesion operates *across* sentences. On the other hand, if the 30 sentences are long, then the opportunities for cohesive devices are reduced, apart from the use of connectives (conjunctions). Looking at the sentence length we see that the sentences in L1 are generally longer than in L2, (apart from the anomalous L1 3<sup>rd</sup> text). There is an additional factor – if there are actors in the piece of text and they talk to each other, this counts as a lot of reiteration (repetition), which is a less highly favoured form of cohesion, yet cannot be avoided. But looking at the third text for L1, the largest part of the reiteration was "the men", where anaphoric reference, using "they" would have been much more appropriate (cf. that text was rewritten by myself to make it

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[3] This is called "asyndetic" connectivity. Syndetic connectivity requires the use of a coordinator.

more "considerate"). Direct comparison of cohesive devices are therefore difficult to make: it needs only to be said that anaphoric (backwards) reference and lexical cohesion are the more favoured forms of cohesion. The table below shows the average length of the sentences, excluding the third L1 text.

| *The length of sentences in terms of average words per sentence across the texts* | | | | | | |
|---|---|---|---|---|---|---|
| L2 first | L2 second | L2 third | L1 first | L1 second | L1 third | L1 fourth |
| 13 | 10 | 9,6 | 13,3 | 10,1 | [9,8] | 13,8 |
| Average = 10,9 | | | | Average = 12,4 | | |

| *The number of cohesive devices in the different texts* | | | | | | |
|---|---|---|---|---|---|---|
| L2 first | L2 second | L2 third | L1 first | L1 second | L1 third | L1 fourth |
| 105 | 56 | 71 | 62 | 51 | [44] | 52 |
| Average L2 = 77 | | Average L1 = 55 | | | | |

## 6.5 The appearance of the books and schemes

Over the last five years, the L2 courses have considerably improved in appearance, for example, there are far more stories, and books are more elaborate: reading is taking a more prominent position – with every course having a Reader as well as a Language Book. For each text in each Learning Area, some material that was analysed was presented as a reference point for the Reader. However, this was done in grey-scale, as it was not possible to reproduce so much colour.
1.

However, the big question is – is the luxurious look designed for the Selection Committees, to attract the teachers, or to the genuine advantage of the children? This is definitely a question for empirical research. A related question is: How far do the Grade 3 children get through in a typical year?[4] Based on my previous experience, I would expect only 40% to 50% of the content of any L2 course to be covered. A related question would be: To what extent are the schemes of work in *L1* classrooms covered, and how many Readers do the

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[4] This question would have had to be asked of the teachers during the third term of the 2007 study, since the team would neither have been able to wait for the end of 2007 to get an answer, nor been able to visit the schools again.

children get though in a year, on average? The answer to this question is equally important. Time on task is an important determining variable here.

The third L2 course is the least attractive course, partly for historical reasons. The original author, writing for cash-strapped publishers, was happy for the course to be published on inferior paper with black and white, austere pictures. He wanted the books to be simple, and very focused; because he said that the course was aimed at children in deep rural areas so that it was important to give them a simplified picture with focused questions.[5] The new publishers of this third course seem to have done a cut and paste job on the scheme, inserting more "fashionable" pictures in places. The wall charts are now in full colour, and very modern and complex. There is another question here: Are the children in deep rural areas able to understand very busy pictures with a great deal of activity and detail? If they are *not*, then cognisance should be taken of this – although given the stiff competition in the market it is unlikely that publishers would go back to using very simple pictures. The market is likely to triumph over mentality. On page 243 the two styles of a town (the old and the new) are shown from the same scheme. The second picture has been grey-scaled for this document, but is actually in full colour, and also appears as a wall chart.

The reading competence of the children in the Threshold Project (1990) was disconcertingly low. The extract that follows two pages on shows what we found.

## 6.5.1 Bonzo falls into a hole

The story scanned in on pages 240 and 241 occurs in L2 Scheme Three, Grade 2. The reader should refer to it before reading the description below.

In 1986, the Threshold Project team was very interested in assessing the children's reading comprehension. We first set tests at Grade 4 level and the children failed abysmally on this. Undeterred, we constructed a test at Grade 3 level; but once again the children made no sense

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[5] When I did a Grade 2 evaluation of this course, we went to a school run by a sugar mill, deep in KwaZulu Natal. I asked the Head of Department about the children's access to town. She said: "Next term we are going to take the class to town by bus, so that they can see a pedestrian crossing, amongst other things." I called my evaluation report for that Grade 2 study: "Next week we are going to town by bus".

of the task. Then with some trepidation we asked the children to do a comprehension task from a Grade 2 course. At first it seemed that the children could do this task, but as we watched them, we saw them simply copying out the sentences of the text. In order to ascertain if they really understood, we swopped some of the questions around, so copying would yield the wrong answer. I now quote from the 1990 Report:

> Each child received a text with pictures, and then a very similar text with questions placed above the pictures (that is, adjacent to the text to which it refers). The testing was done quasi-naturalistically, with the tester-reader reading through the story and discussing the pictures with the children. The results were disappointingly low – between the five schools, the range was from 42% to 73% (in the best PEUP school) We found that there was a distinct order of difficulty in understanding these words, where *who* is the easiest and then *what, where, why, how* and *whose* (follow). Difficulties with *why* indicate that children have difficulty answering questions about purpose and cause, which are concepts basic to clear thinking. There seemed to be some kind of interactive effect, insofar as "easy" Wh- questions were able to be answered even when the answer was not directly in the text. In other words the children were able to make very simple inferences if they had an idea of the basic meaning of the text.

At the time of this testing, children were generally (and especially our sample) starting learning English in Grade 2. We were therefore convinced that this was the easiest and longest text we could use. Later on, when we began to study illustrations, it became clear to us that children would not be able to read this story without interrelating what was written with what was illustrated. Generally children simply ignored illustrations.

Thirteen years later, when I was testing children in the Benoni-Brakpan district (1999), it appeared as though the Grade 3 children could not address any of the test items I had constructed. Using the same frame of reference, I thought it would be good to have Bonzo translated into the three Sotho languages. The children's results were a resounding failure; the worst were an abandoned group of children whose teacher had been on sick leave for six months. Tested by another teacher, some of the children didn't even know to follow the story on paper – they simply looked around the classroom and into fresh air – and the best they could produce were scraps of incoherent words and phrases, mostly copied from the text.

If this text is used as a frame of reference for the present research, it would be good if we could see if the children could do the Bonzo test, especially as this is now their third year of learning English. (Assuming that English starts in Grade 1.) The Bonzo story and illustrations appear below.

## Activity 25: Read a story

### Bonzo falls into a hole

**falls now**



This is Bonzo. He is a hunting dog.

Bonzo is in the long grass. He is hunting rabbits.

He sees a rabbit. The rabbit is sitting on a rock.

The rabbit sees Bonzo. It runs into the long grass.

Now Bonzo is running after the rabbit. He does not see the big hole.

Bonzo falls into the hole.

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**7** Bonzo is barking. Joe and the boys are running to the hole.

**8** "Get a long rope!" says Joe. Now a boy is running to get a rope.

**9** Joe jumps into the hole. He has a rope on his arm.

**10** Joe has the rope in his hand. He has Bonzo under his arm.

**11** "Pull me up!" says Joe. Now the boys are pulling the rope.

**12** Joe and Bonzo are up. "Thank you!" says Joe. Bonzo barks. He is very happy.

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It is suggested that Grade 3 children are tested on reading passages after they have been taught them in a typical lesson. At this early stage we cannot expect the L2 children to be reading autonomously (cf. the Shared Book method which is a good way for a teacher to model and support reading).

# 6.6 Academic Language Functions

Over the past two decades, a very interesting and valuable contrast has emerged which describes the difference between two types of language that children use in classrooms. (See Chapter 1.12.) The first type – rather quickly managed by L2 children in an L1 supportive context – is BICS, Basic Interactive Communicative Skills. These are the skills that get you by with in the here and now, where the topic is accessible and familiar. For example, "Look at those two boys fighting in the playground. Quick, let's call the teacher on duty." Over many decades teachers whose children could talk like this decided that these children could be mainstreamed with competent L1 children. But to their dismay, such children failed to thrive doing mainstream subjects such as History and Geography.

Cummins[6] (the author who first highlighted this dichotomy) described the kind of language as CALP, Cognitive Academic Language Proficiency. This language is a polar opposite to BICS, being disembedded – not in the here and now – and cognitively demanding. If children only have social language, it is clearly that cognitively demanding disembedded language is going to be a significant challenge. Even for L1 speakers there are language challenges as the Curriculum starts to diversify into historically accepted disciplines. Constructions in texts become very much more difficult, as authors try to cram information into one sentence – as a Language like English actually allows. L2 children may well fall more and more behind as they go through school, resorting in many cases to the age-old tradition of rote learning, but more critically, into rote learning without understanding. This is catastrophic for learning if it continues into secondary and tertiary education.

### 6.7.1 Two town pictures (L2 Scheme Three)
These pictures appear on the next page. "An old picture of a town" and "a new picture of a town". Notice the first picture contains only the features necessary for the lesson. The second picture is an updated version. A question is whether deep rural children are be able to separate features, or whether the detail overwhelms them.

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[6] Cummins, J. (1984) *Bilingualism and Special Education: Issues in Assessment and Pedagogy.* Clevedon: Multilingual Matters.
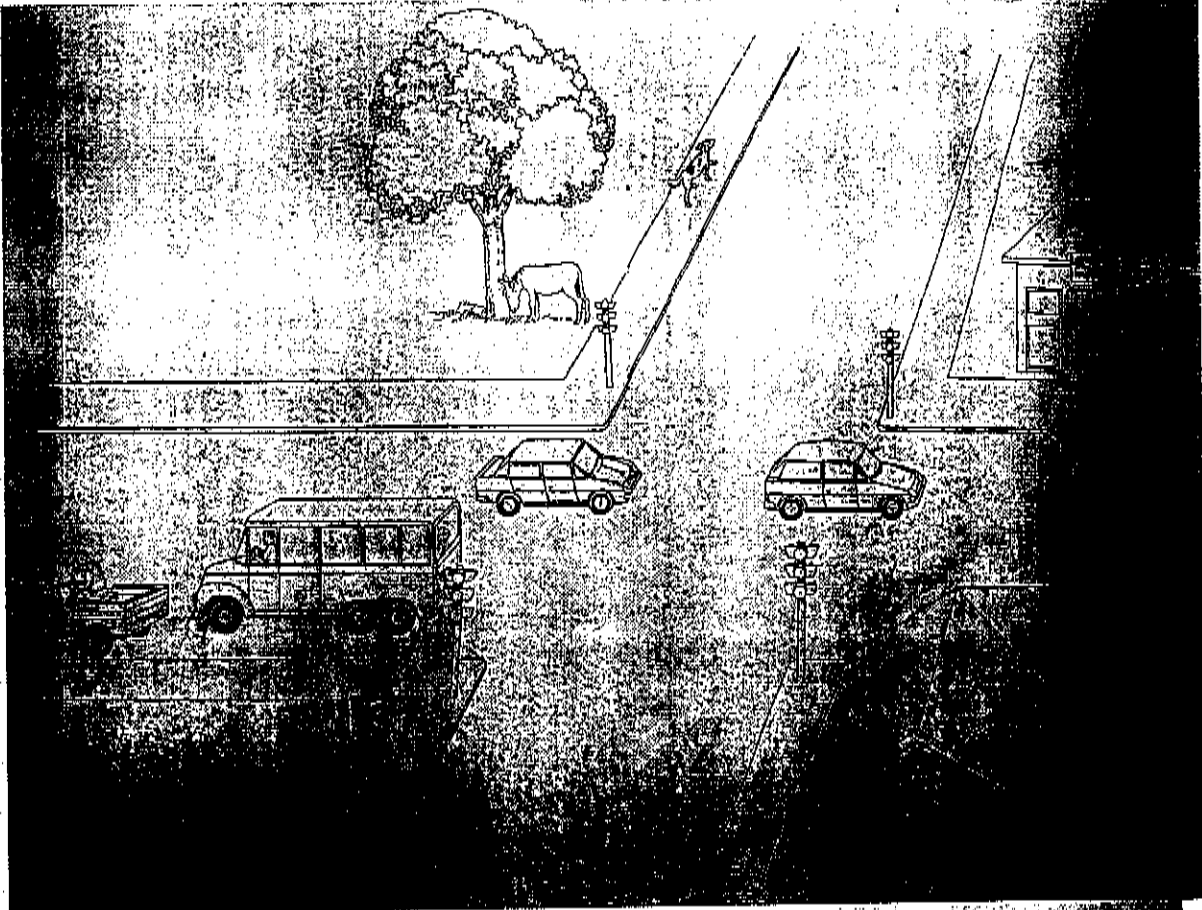
**Activity 29: The town**
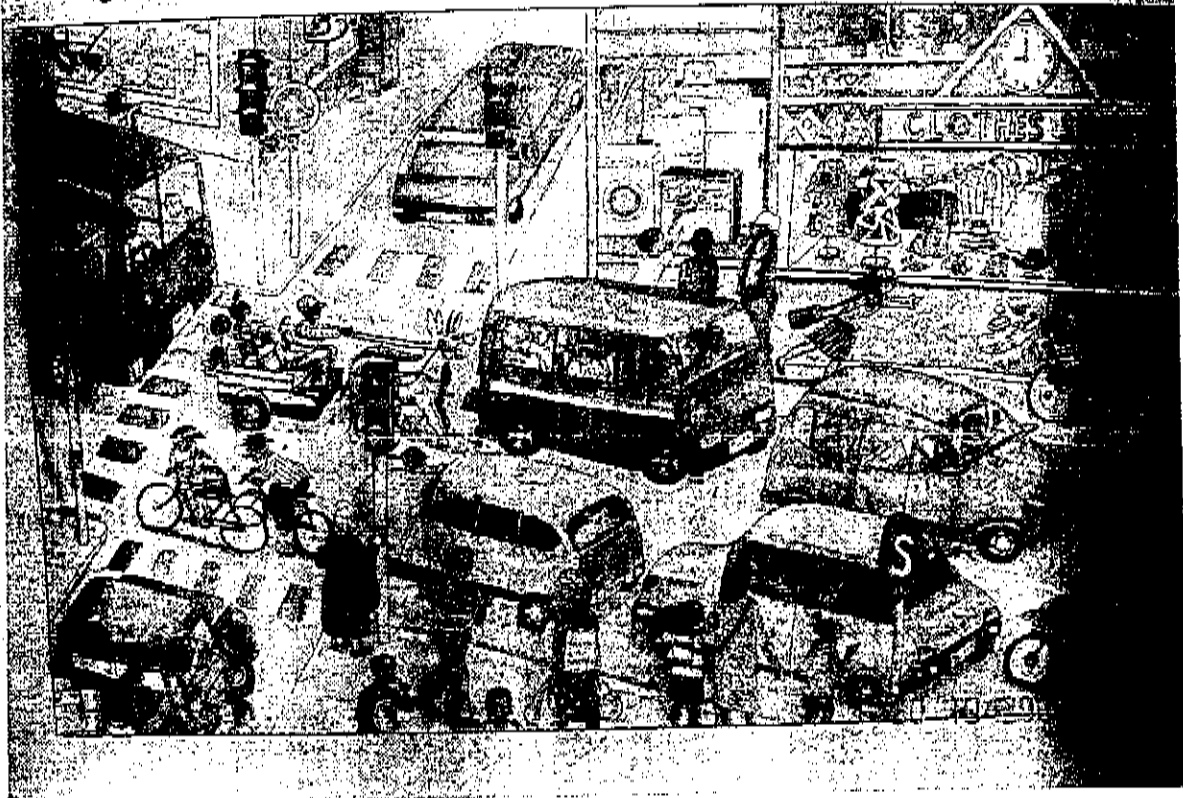
# 6.8 Cognitive skills

While defining the dichotomy between BICS and CALP, Cummins did not exemplify it, and this was left to lesser minds to conceptualise. The first to do this was Chamot and O'Malley (1987)[7] and O'Malley (1988)[8] who coined the terms CALLA, the Cognitive Academic Language Learning Approach, and wrote a handbook (1991)[9] on teaching it.

The rubric which Pierce and O'Malley (1992)[10] used was called Academic Language Functions (ALF), which was adapted and used in the present study. The Foundation Phase (FP) Curriculum was examined as well as writing on process skills, and this generated a slightly richer template. The ALP is reproduced (but not yet applied to the FP Learning Programmes) on the next two pages for familiarisation.

One of the interesting findings in using this template is the richness it reveals in the Life Skills courses, as well as the FP Mathematics Curriculum and Numeracy texts themselves. The functions are relatively self-evident and can be used by people who are not conversant with formal linguistics or psycholinguistics. In Chapters 2, 3, 4 and 5 the three Learning Programmes of the Foundation Phase: Literacy (L1 and L2), Life Skills and Numeracy, are analysed against these categories.

## 6.8.1 Academic Language Functions general

Global analysis for all types of courses:

| Language | Student uses language to: | Examples |
|---|---|---|
| 1. Following instructions | Read instructions to make or do something | Interpreting information while reading instructions |
| 2. Observing and comparing | Notice things that seem pertinent | Using senses at hand or watch something |

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[7] Chamot, A.U. and O'Malley, J.M. (1987) The Cognitive Academic Language Approach: A bridge to mainstream. *Tesol Quarterly*, 21(2), 227-249.
[8] O'Malley, J.M. (1988) The cognitive academic language learning approach (CALLA). *Journal of multilingual and multicultural development*, 9(1&2), 43-60.
[9] Chamot, A.U. and O'Malley, J.M. (1991) *The Cognitive Academic Language Approach: A resource guide for teachers*. Reading: Addison Wesley.
[10] Pierce, L.V. and O'Malley, J.M. (1992) *Performance and portfolio assessment for language minority students*. NCBE Professional Information Guide Series Number 9, Spring.

| Language | Student uses language to: | Examples |
|---|---|---|
| 3. Seek information | Explore the environment or acquire information | Work in planned way to collect information. Use who, what, when, where, and how to collect information in increasing competency |
| 4. Measuring and estimating | Use measuring instruments and make good guess | Use instruments to answer questions that require accurate information |
| 5. Recording | Measure carefully | Write down, make notes, trace and sketch pictures, complete diagrams, fill in data in tables |
| 6. Analyse | Separate whole into parts | Tells parts or features of object or idea |
| 7. Compare | Analyse similarities and differences in objects or ideas | Indicate similarities and difference in important parts or features of objects or ideas, outline/diagram/web. Indicate how A contrasts/compares with B |
| 8. Classify | Sort objects or ideas into groups and give reasons | Show how A is an example of B, how A is related to B, or how A and B go together but not C and D. Explain why things go together |
| 9. Interpreting information | Interpret information in different forms | Using texts, diaries, drawings, diagrams, models, tables and graphs |
| 9.1 Changing the form | Interpret different forms of information | Changing forms of information to express understanding |
| 9.2 Applying concepts | Know when to use concepts and how | Create useful ideas that summarise a number of experiences |
| 9.3 Making inferences | Infer that which is beyond the obvious | Conclusions based on different sources of information |
| 9.4 Seeing parts and stating relationships | Try different possibilities and find relations | Describe what has been done and how relationships have been determined |
| 10. Predict | Another form of interpretation; predict implications | Predict implications from actions or from stated text |
| 11. Inform | Report, explain, or describe information or procedures | Retell story or content-related information in own words, tell main ideas, summarise; use graphic forms such as flow-charts, posters, diagrams, pie-charts and bar graphs |

| Language | Student uses language to: | Examples |
|---|---|---|
| 12. Hypo-thesise | Hypothesise consequences | Generate hypotheses to suggest consequences from antecedents; may be tested and reported |
| 13. Justify | Give reasons for an action, a decision, or a point of view | Tell why A is important, why you selected A, or why you believe A |
| 14. Persuade | Convince another person of a point of view | Show at least two pieces of evidence or arguments in support of a position |
| 15. Solve problems | Determine solution using models and theories | Given stated problem, reach solution |
| 16. Synthesise | Combine ideas to form a new whole | Put A together with B to make C, predict or infer C from A and B, suggest a solution for a problem |
| 17. Evaluate | Assess the worth of an object, opinion, or decision | Select or name criteria to evaluate, prioritise a list and explain, evaluate an object or proposition, indicate reasons for agreeing or disagreeing |

Sources: O'Malley (2007), Moodie (2004) and RNCS (2002) for Home Language (L1) and First Additional Language (L2).

## 6.9 Language and Life Skills; Language and Numeracy

Why would one want to discuss these two relationships at the same time – surely Language and Life Skills have a lot more in common than Language and Numeracy? Indeed, and the differences will be addressed shortly. However, it must be pointed out that two technical aspects of the analysis showed up an important phenomenon: there are a large number of structures in these two types of texts : L2 – 33; L1 – 26; Life Skills – 21; and Numeracy – 24. First it needs to be remembered that in the Foundation Phase, Life Skills is supposed to be a preparation for six Learning Areas (See Chapter 4.3.1) because of this, it opens itself up to a range of ideas; including obviously new words and concepts and a range of syntactic structures. And interestingly, Life Skills also has a good range of ALFs. It is of paramount importance to do a close scrutiny of these texts because if they contain too many new words, and too wide a range of syntactic structures, children may be enchanted by the pictures in these beautiful books, but fail to a greater or lesser extent to understand what they are

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supposed to be doing. The introduction of new vocabulary is something that should be attended to carefully, and the late Lanham gave us directions to guide us here.

The Life Skills books, encouraged by a cross-curricular orientation, look very different indeed from one another, so schools using different texts will prepare their children in different ways for the Learning Areas they encounter in Grade 4 and onwards. One can only pity the poor children who move to a new school in Grade 4 and find that their knowledge preparing them for the Intermediate Phase (IP) is not shared with the other children and vice versa. In a personal communication, Lydia Abel, convener of the FP for the National Curriculum Statement, said that the FP Committee decided to ignore the contribution from the other Learning Area (LA) Committees and make their own curriculum. It has to be said that the resulting curriculum is very dilute and would hardly prepare the children for the veritable fountain of new concepts they are about to encounter. Fortunately the writers of the Life Skills books have decided to use their own initiative and draw on the relevant official LA documents. So we have landed up with vibrant books, but with the potential problems that I have outlined above. These merit further thought.

How do we speak of Mathematics and Numeracy in the same breath? A little later a more conventional picture will be presented, but let us dwell on the similarities for the moment. I took the Mathematics Curriculum for Grade 3, and to start with looked at the ALFs it embodied. To my wonder, it looked as though Mathematics has the *greatest* number of ALFs. Why would this be? For a start, one would expect some kind of change, given what the new Numeracy books look like. They are full of effervescent activities with plenty of written *language* in the books. Gone are the books which principally contained lists of computational exercises, such as the four operations, decimals, fractions etc. The children are measuring, making, doing little projects and discussing what they are doing. Since I is not trained in the pedagogy of Mathematics, it would be very helpful if a Mathematics expert looked at these texts, to make sure that the tasks are valid and that there are no conceptual errors.

The vocabulary in these books is not unduly wide (we couldn't go measuring the Carlton Centre, using a Life Skills measuring tape). However, the syntax is quite wide-ranging. It has a narrower range than Literacy or Like Skills, but great care has be taken to make sure that children understand. The words may be simple but the syntactic constructions are complex: look for example at:"Write down and show on your model clock the times that each person works." It seems quite unlikely that the children could decode this without the aid of their

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teacher, this despite the fact that at the bottom of the page there are extra activities recommended for the teacher to do with the class. Here is the summary table of the Academic Language Functions and the exponents in Life Skills and Numeracy.

## 6.10 Academic Language Functions applied

| Language | Student uses language to: | L1 | L2 | Life Skills 1[11] | Life Skills 2 | Life Skills 3 | Num 1 | Num 2 | Num 3 |
|---|---|---|---|---|---|---|---|---|---|
| 1. Following instructions | Read instructions to make or do something | ✓ | ✓ | ✓ | ✓ | – | ✓ | ✓ | ✓ |
| 2. Observing and comparing | Notice things that seem pertinent | ✓ | – | ✓ | ✓ | ✓ | ✓ | – | – |
| 3. Seek information | Explore the environment or acquire information | ✓ | – | ✓ | ✓ | | ✓ | | – |
| 4. Measuring and estimating | Use measuring instruments and make a good guess | – | ✓ | ✓ | ✓ | – | – | ✓ | ✓ |
| 5. Recording | Measure carefully | ✓ | – | – | ✓ | ✓ | – | ✓ | ✓ |
| 6. Analyse | Separate whole into parts | ✓ | ✓ | – | ✓ | – | – | ✓ | – |
| 7. Compare | Analyse similarities and differences in objects or ideas | – | – | ✓ | ✓ | ✓ | ✓ | – | – |
| 8. Classify | Sort objects or ideas into groups and give reasons | – | – | ✓ | ✓ | – | – | ✓ | ✓ |
| 9. Interpreting information | Interpret information in different forms | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 9.1 Changing the form | Interpret different forms of information | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 9.2 Applying concepts | Know when to use concepts and how | ✓ | – | ✓ | ✓ | – | ✓ | ✓ | – |

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[11] Remember that the texts 1 and 2 for Life Skills and Numeracy are part of a course put out by two different publishers. Text 3 Life Skills comes from a different stable, and Scheme 2 Numeracy comes from a course with an imprint of Scheme 1, but is very different from it.

| Language | Student uses language to: | L1 | L2 | Life Skills 1[11] | Life Skills 2 | Life Skills 3 | Num 1 | Num 2 | Num 3 |
|---|---|---|---|---|---|---|---|---|---|
| 9.3 Making inferences | Infer what is beyond the obvious and why | ✓ | – | ✓ | – | ✓ | ✓ | – | ✓ |
| 9.4 Seeing parts and stating relationships | Try different possibilities and find relations | – | – | ✓ | ✓ | – | ✓ | ✓ | – |
| 10. Predict | Another form of interpretation; predict implications | ✓ | – | ✓ | ✓ | – | ✓ | ✓ | – |
| 11. Inform | Report, explain, or describe information or procedures | ✓ | – | – | ✓ | ✓ | – | ✓ | ✓ |
| 12. Hypothesise | Hypothesise consequences | ✓ | – | – | – | – | – | – | – |
| 13. Justify | Give reasons for an action, a decision or a point of view | ✓ | – | – | ✓ | ✓ | – | ✓ | ✓ |
| 14. Persuade | Convince another person of a point of view | ✓ | – | – | – | – | – | – | – |
| 15. Solve problems | Determine solution using models and theories | ✓ | – | ✓ | ✓ | – | ✓ | ✓ | – |
| 16. Synthesise | Combine ideas to form a new whole | – | – | – | – | – | – | – | – |
| 17. Evaluate | Assess the worth of an object, opinion, or decision | ✓ | – | – | – | – | – | – | – |
| Conclusion L1 | Number of functions = 21 | 16/21 | | | | | | | |
| Conclusion L2 | Number of functions = 5 | | 5/21 | 11/21 | 16/21 | 8/21 | 11/21 | 13/21 | 11/21 |

Observe the last two rows of the foregoing table. The total number of functions is 21. The number of functions I can infer from the L1 curriculum is 16 out of the 21. This is an encouraging start. In comparison, looking at the L2 (FAL) curriculum was a shock. Only five of the 21 functions are expected. What kind of gap are we inducing here if we take this seriously?[12] One could hypothesise that nobody has noticed this disparity and made a fuss about it. I am more than willing to take up the issue.

However, the front runners – the first and second Life Skills and the Numeracy courses – make a valiant showing here. Whether they are aware of it or not, they have not docilely submitted to the restrictions of the L2 requirements (11 and 11 for Scheme One, and 16 and 13 for Scheme Two). Once again the question hangs in the air—are these courses too ambitious, or will children master them?

I undertook to give the conventional wisdom on language and Mathematics and so a few remarks are in order. (See also Chapter 5.1.1) The first point is to say that Mathematics is a symbol system of its own; and should be analysed on its own terms. Certainly in the current study we could not use the whole arsenal of linguistic tools on this text: the vocabulary and syntax were as far as we could go. Nevertheless there is a lot of language in the Numeracy texts.

It is only possible to talk about much of early Mathematics through ordinary language, and then as more complex concepts are introduced, clear accurate explanation is essential. If concepts are not fully mastered, then Mathematics, always an at-risk subject for resistance on the part of the learners, may well show a decline in both performance and positive attitude.

The issue of the language of Mathematics having being briefly touched on, as well as the skills underlying doing Mathematics, were a considerable number have a direct reference to natural language. It is recommended, however, that a Mathematics expert have a look at the Mathematics itself in the three books used in this analysis.

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[12] It has been pointed out to me in a personal communication with Lydia Abel that the Afrikaans L1 curriculum is a diluted version of the English L1 one. This observation deserves careful attention, because otherwise disparities are going to emerge in unexpected places when fieldwork is conducted.

The range of structures between L2 and L1 is 105/110. Given that there are four texts in L1, the ratio should have been 105/140. When a structure is totally missing from L1 texts, then there is little doubt of its absence. However, since the structures were only marked as occurring once, we cannot be sure from this chart that there were not rather more L1 **tokens**. Establishing the number of instances in a text is an exercise for a future occasion.

What is more telling is the number of structures in Life Skills, i.e. 68. What are we to make of this? It could be that the Life Skills texts are deliberately written more simply than the language texts. The question then arises – are these Life Skills texts preparing children for a sufficient range of contents and structures for the Grade 4 learning spectrum? This question cannot be answered except by scrutinising the Grade 4 texts. It may be that the Grade 3 and Grade 4 books are beyond the competence of L2 children.

What is also interesting is whether the children actually use these texts, even with the help of a teacher: this is a question for research too. Personally, given the available sources of test results, this seems highly unlikely. Teachers are very likely writing simplified notes on the board for children to copy down, especially if they regard the texts to be too difficult for the children.

In conclusion, we list the questions for empirical research as raised in this chapter.

*Reading*:
1. Can the children read with understanding the books across the curriculum?
2. What methods are the teachers using to teach reading? Which is the most effective?
3. What use do children make of the illustrations? How do they integrate them in their reading, if at all?

*Writing*:
4. What writing do the children do, and what method is employed to facilitate this?
5. Do the children write simplified notes off the chalkboard? Do the children understand these notes?
6. What use are the children making of the text in informational texts?

*Listening*:

7. Can the children make any sense of what they might hear from the textbooks?

*Speaking:*

8. What is the level of children's conversation when they are asked to "discuss a picture" in their books?

9. What other kind of speaking is expected of the children?

These questions are crucial to our understanding of Grade 3 children's language competence.

What follows below is Appendix 1, showing all the syntactic structures across all the sample texts, and Appendix II that shows the Academic Language Functions across L2, Life Skills and Numeracy across the two publishers who published matching books.

# APPENDIX I: Syntactic structures cross the Learning Programmes

| Structures | Scheme 1 | Scheme 2 | Scheme 3 | Text 1 Narrative (Riff Raff) | Text 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) | Life Skills Text 1 | Life Skills Text 2 | Life Skills Text 3 | Numeracy Text 1 | Numeracy Text 2 | Numeracy Text 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. All types of verb groups except for complex verb groups | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ +complex | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2. Commands, statements and denials | | ✓ | ✓ | ✓ | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3. Wh-questions with words like who, how and how much | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| 3a. how many | | | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| 3b. what | | ✓ | | ✓ | ✓ | | ✓ | | | | ✓ | ✓ | ✓ |
| 3c. Wh- in subordinate clause | ✓ | | ✓ | | | | | | | | | ✓ | |
| 4. Yes/No questions, including auxiliary and modal fronting | ✓ | ✓ | ✓ | ✓ | | | | | | | | | |

| Structures | Scheme 1 | Scheme 2 | Scheme 3 | Text 1 Narrative (Riff Raff) | Text 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Wairus) | Life Skills Text 1 | Life Skills Text 2 | Life Skills Text 3 | Numeracy Text 1 | Numeracy Text 2 | Numeracy Text 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5. Tenses: pres, past, pres. cont., pres. perf. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ hist. pres | pres, past | pres, past | pres |
| 5a. Tense: past perfect | | | ✓ | ✓ | | ✓ | | ✓ | | | | | |
| 6. Relative clause with the relative pronoun *who* | ✓ | ✓ | ✓ | | | | | | | | | ✓ | |
| 6a. *that* as relative clause marker | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | | ✓ |
| 7. Co-ordinating sentences with *and* and *or* | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 8. Co-ordinating phrases with *and* (not *but* or *or*) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 8a. *or* | ✓ | | | ✓ | | | | | ✓ | | | | |
| 9. Passive construction | | ✓ | ✓ | ✓ | | | | ✓ | ✓ | ✓ | | | |
| 10. Modal *can* | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ *can be* | ✓ | ✓ | ✓ | ✓ | ✓ *would* |

| Structures | Scheme 1 | Scheme 2 | Scheme 3 | Text 1 Narrative (Riff Raff) | Text 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) | Life Skills Text 1 | Life Skills Text 2 | Life Skills Text 3 | Numeracy Text 1 | Numeracy Text 2 | Numeracy Text 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10a. Modal *could* | | ✓ | ✓ | | | | | ✓ | ✓ | | | | |
| 10b. Modal *must* | | ✓ | ✓ | | | ✓ | | | | | | ✓ | |
| 10c. Modal *may* | | ✓ | | | ✓ | | | | | | | | |
| 11. Demonstrative | | ✓ | ✓ | | ✓ | | ✓ | *would* | | ✓ | ✓ | ✓ | ✓ |
| 12. Non-finite verb group complement, e.g. He will help you *to bring them back* | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| 14. Non-finite post modifier of NP (PP) | ✓ | | ✓ | ✓ | | ✓ | | | ✓ | | | | |
| 14a Phrasal NP post-modifier | | ✓ | | | | | | ✓ | | | | ✓ | |
| 14b Phrasal NP pre-modifier | | ✓ | | | ✓ | | ✓ | | | | | | |
| 15. Finite verb group complement | ✓ | | | | | | | | ✓ | | | ✓ | |

| Structures | Scheme 1 | Scheme 2 | Scheme 3 | Text 1 Narrative (Riff Raff) | Text 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) | Life Skills Text 1 | Life Skills Text 2 | Life Skills Text 3 | Numeracy Text 1 | Numeracy Text 2 | Numeracy Text 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15a. Non-finite complement of verb-group | ✓ | ✓ | | | | | | | | ✓ | ✓ | ✓ | |
| 16. Non-finite verb group complement, e.g. I am going to eat. | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | | | ✓ | ✓ |
| 17. Finite adverbial with *before, then* | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | ✓ | |
| 17a *when* | ✓ | | ✓ | ✓ | | ✓ | | ✓ | | | ✓ | ✓ | |
| 19. Comparative clauses as *big as/as fast as* | ✓ | ✓ | | ✓ | ✓ | ✓ | | | ✓ | | | | |
| 20. Sub-ordinating conjunctions *before, then* | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | | | |
| 20a. *because, where, when* | ✓ | ✓ | | ✓ | ✓ | | | | | | ✓ | ✓ | |

| Structures | Scheme 1 | Scheme 2 | Scheme 3 | Text 1 Narrative (Riff Raff) | Text 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) | Life Skills Text 1 | Life Skills Text 2 | Life Skills Text 3 | Numeracy Text 1 | Numeracy Text 2 | Numeracy Text 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20b. *when* | ✓ | ✓ | | ✓ | ✓ | | | | | | | ✓ | |
| 20c. *then* | ✓ | ✓ | | | ✓ | | | | | | | | |
| 20d. What | ✓ | | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| 20e. Wh- in subordinate clauses | ✓ | | ✓ | | | | | ✓ | | | | | |
| 21. Discourse markers (COMP) *now, then* | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | how many | ✓ | how many |
| 22. Past perfect tense | | | ✓ | | | ✓ | | | ✓ | | | | |
| 23. *that* as relative clause marker | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| 24. Ellipsis/substitution | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ |
| 25. Lists | | ✓ | ✓ | | | | | ✓ | | | ✓ | ✓ | ✓ |
| 26 Multiple embeddings | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | | |
| 27. Adverb. phrases: Purpose | | | ✓ | | | ✓ | ✓ | ✓ | | ✓ | | | ✓ |
| 27a: Time | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 27b. Place | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 27c Manner | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | |

| Structures | Scheme 1 | Scheme 2 | Scheme 3 | Text 1 Narrative (Riff Raff) | Text 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) | Life Skills Text 1 | Life Skills Text 2 | Life Skills Text 3 | Numeracy Text 1 | Numeracy Text 2 | Numeracy Text 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28. Present participle | | ✓ | | | | | | | | ✓ | | | ✓ |
| 29. Past participle | ✓ | ✓ | | ✓ | ✓ | | | | | | | ✓ | |
| 30. Asyndetic co-ordination | | ✓ | | | ✓ | | ✓ | | ✓ | ✓ | | | ✓ |
| 31. Possessive | | | ✓ | | | ✓ | | | ✓ | | ✓ | ✓ | ✓ |
| 32. Demonstrative | | ✓ | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 33. Existential *there* | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | ✓ | | |
| 34. *And* as sentence initial | | ✓ | | ✓ | | | | | | | | | |
| 35. NP in apposition | | | | | ✓ | | | ✓ | | | | | |
| 36. Transposed clause/phrase | | | | | | | | | ✓ | | | | |
| Conjunctions | *that is like, be-cause, when, but, how, some, other* | *when, behind* | *maybe, when, then* | *As soon as, and, when, then, if again, And, took* | *at once, now, before, then* | *about how, first, then, so that, so* | *once seen, but, and, when, where, at these times, since,* | *then, but, now, if* | *but* | *when, then, if* | *how many, the first one, here, how far, after* | *now, how many, now, follow join* | *how far if, how did you* |

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| Structures | Scheme 1 | Scheme 2 | Scheme 3 | Text 1 Narrative (Riff Raff) | Text 2 Narrative (Gelert) | Text 3 Non-fiction (Kontiki) | Text 4 Expository (Walrus) | Life Skills Text 1 | Life Skills Text 2 | Life Skills Text 3 | Numeracy Text 1 | Numeracy Text 2 | Numeracy Text 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  | *also, as* |  |  |  | *how much* |  |  |
| TOTAL (without conjunctions) | 32 | 38 | 31 | 30 | 29 | 24 | 18 | 24 | 22 | 18 | 23 | 31 | 20 |
| AVERAGE FOR EACH TEXT TYPE |  | 33 |  |  | 25 |  |  |  | 21 |  |  | 24 |  |

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## APPENDIX II: Academic Language Functions across the two courses covering the three Learning Programmes

| Language | Student uses language to: | L1 New Curric | Course 1 Lang L2 | Course 1 Life Skills | Course 1 Numeracy | Crse 2 Lang L2 | Course 2 Life Skills | Course 2 Numeracy |
|---|---|---|---|---|---|---|---|---|
| 1. Following instructions | Read instructions to make or do something | ✓ | 28 | ✓ | ✓ | 48 | ✓ | ✓ |
| 2. Observing and comparing | Notice things that seem pertinent | ✓ | 11 | ✓ | ✓ | 13 | ✓ | ✓ |
| 3. Seek information | Explore the environment or acquire information | ✓ | 6 | ✓ | ✓ | 6 | ✓ | – |
| 4. Measuring and estimating | Use measuring instruments and make good guess | — | 6 | ✓ | – | 6 | ✓ | ✓ |
| 5. Recording | Measure carefully | ✓ | 2 | — | — | 1 | ✓ | ✓ |
| 6. Analyse | Separate whole into parts | ✓ | 8 | – | – | 3 | ✓ | ✓ |
| 7. Compare | Analyse similarities and differences in objects or ideas | – | 9 | ✓ | ✓ | 3 | ✓ | ✓ |
| 8. Classify | Sort objects or ideas into groups and give reasons | – | 5 | ✓ | | 5 | ✓ | ✓ |
| 9. Interpreting information | Interpret information in different forms | ✓ | 11 | ✓ | ✓ | 3 | ✓ | – |
| 9.1 Changing the form | Interpret different forms of information | ✓ | 9 | ✓ | ✓ | 4 | ✓ | ✓ |
| 9.2 Applying concepts | Know when to use concepts and how | ✓ | 6 | ✓ | ✓ | 3 | ✓ | ✓ |
| 9.3 Making inferences | Infer what is beyond the obvious and why | ✓ | 3 | ✓ | ✓ | 1 | – | – |
| 9.4 Seeing parts | Try different | – | 1 | ✓ | ✓ | – | ✓ | ✓ |

| Language | Student uses language to: | L1 New Curric | Course 1 Lang L2 | Course 1 Life Skills | Course 1 Numeracy | Crse 2 Lang L2 | Course 2 Life Skills | Course 2 Numeracy |
|---|---|---|---|---|---|---|---|---|
| and stating relationships | possibilities and find relations | | | | | | | |
| 10. Predict | Another form of interpretation; predict implications | ✓ | 3 | ✓ | ✓ | 4 | ✓ | ✓ |
| 11. Inform | Report explain, or describe information or procedures | ✓ | 12 | – | – | 14 | ✓ | ✓ |
| 12. Hypothesise | Hypothesise consequences | ✓ | 0 | – | – | – | -- | – |
| 13. Justify | Give reasons for an action, a decision or a point of view | ✓ | 2 | – | -- | – | ✓ | ✓ |
| 14. Persuade | Convince another person of a point of view | ✓ | 4 | ✓ | ✓ | – | -- | – |
| 15. Solve problems | Determine solution using models and theories | ✓ | 1 | ✓ | ✓ | -- | ✓ | ✓ |
| 16. Synthesise | Combine ideas to form a new whole | – | 1 | – | – | – | – | – |
| 17. Evaluate | Assess the worth of an object, opinion, or decision | ✓ | 2 | – | -- | – | -- | – |
| Conclusion L1 | Number of functions = 21 | 24 | | | | | | |
| Conclusion L2 | Number of functions = | | | | | | | |