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Mapping the development of children's writing: a functional perspective

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*Mapping the development
of children's writing:
A functional perspective*

*A thesis submitted in fulfilment
of the requirements for the award
of the degree of*

Doctor of Philosophy

from the

University of Wollongong

by

Helen Elizabeth Lewis

BA Sydney, Grad. Dip. Ed. Sydney, MEd (TESOL) Wollongong

School of Education

August 2014

CERTIFICATION

I, Helen Elizabeth Lewis, declare that this thesis, submitted in fulfilment of the requirements for the award of the Doctor of Philosophy, in the School of Education, the University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualification at any other academic institution.

Helen Elizabeth Lewis

August 2014

DEDICATION

To my parents, Warren and Jill.

ACKNOWLEDGEMENTS

I would like to thank my supervisors, Beverly Derewianka and Pauline Jones, for indefatigable patience and invaluable help and advice.

I greatly appreciate the feedback of the thesis Examiners, which has led to an improved final version.

Thank you to the children of Wollongong, without whom the work reported here would not have been possible.

To my family, my fantastic family, thank you.

To God be the glory.

ABSTRACT

There is a relative scarcity of research into children's writing, especially into the specifics of how the writing of children develops once they are in the schooling system. This study aims to profile such a development. More precisely, the study examines in detail a set of written texts from Year 3, 4, 5 and 6 Australian primary school students (ages approximately 8 to 12 years old) within the framework of a functional model of language stemming from Systemic Functional Linguistics (SFL). SFL espouses language as a meaning making system intimately related to its context of use, and is concerned with theorising and researching language as social practice, especially educationally. It has come to underpin and inform literacy programs and syllabuses in Australia. It thus provides an appropriate theoretical model for this study.

The main concern of the study was to identify and make explicit the linguistic resources primary students use to make meanings in response to the demands of schooling, and how these linguistic resources might vary with age and according to different curriculum requirements. A large number of texts was obtained through the co-operation of primary school staff, children and parents. From these a representative selection of 48 texts was made, spanning schools, grades, genders and genres, forming the corpus for analysis.

The analyses and observations were grouped according to social purposes adopted in schools: writing to entertain (a Narrative), writing to argue for or against a particular point of view (an Exposition) and writing to give information about something (a Report). Within each of these groupings, an ideational analysis was undertaken across the four grades. The texts were analysed from the clausal level, proceeding to the phrasal/group level then through to the word. The analysis examined how the deployment of experiential clausal elements differed according to the three genres and the four grades.

The main findings of the study revolve round the fact that the development in children's writing is genre-specific, meaning that features appear in one genre that

are not necessarily apparent in another genre at a comparable age, and that a development of use can be traced through the Years. This is very evident, for example, in the use of the nominal group as Participant and in Circumstances; the fractional use of an embedded clause as the whole nominal group always increases and the fractional use of an embedded clause as qualifier in a nominal group always decreases across the Years for Expositions.

The study is motivated by a desire to better understand the development of writing proficiency with a view to improving the teaching of writing at the upper primary level, and making explicit the language demands of schooling so that they are visible and teachable, giving all students access to the discourses of power. It addresses the problem of the relative lack of empirical evidence for children's writing development from a functional perspective on which to base decisions regarding policy, curriculum and assessment.

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1 INTRODUCTION

1.1 Context for the research

In Australia and internationally there is currently great interest in literacy standards. Given the extent to which all students' academic, social and vocational futures depend on their ability to read and write increasingly complex texts, it is important that they achieve to the highest literacy standards. Beyond relatively superficial indicators, however, we do not have sufficient evidence of what constitutes control over the grammatical resources needed for academic achievement at different age levels.

The study reported here identifies some indicators of writing development in school children in upper primary years, and thereby contributes to a more comprehensive description of writing development across the years of schooling from a functional perspective. In particular, the present study builds on a project funded by the Australian Research Council (Christie and Derewianka 2008) in which I was involved as a member of the research team. The project investigated key indicators of adolescent writing in secondary schools, documenting students writing at transitional points of secondary schooling – years 7, 10 and 12 – across a range of curriculum subjects. This thesis represents research that is in essence an extension of that project, focusing in greater detail on what goes on before adolescence, in the writing of children in the primary years – years 3, 4, 5 and 6 in most Australian states, ages approximately 7-11 years. Thus the aim is to contribute to the build-up of our knowledge of student writing and contribute to a systematic, explicit and detailed description of the linguistic demands of schooling from K to 12.

Such a description can provide foundational knowledge about the way children write, about the way they learn to access and exploit the meaning making resources of language within the educational system through which all must travel.

Writing is important for many reasons, among them the three perspectives of knowledge building, assessment, and preparation for further education or the workplace. Knowledge is built through writing. This is acknowledged in such initiatives as the DISKS ('Disciplinary, Knowledge and Schooling') project

involving knowledge-building practices in Year 11 and 12 classes. Freebody (2013) notes that “written textual forms are currently an essential element of our culture’s embodiment of its valued knowledge”. Knowledge about language - grammatical knowledge - is central to this (Myhill and Watson 2014). The work reported in this thesis, by examining linguistic forms in the meanings that have been created in students’ writing at different stages of their schooling, provides a contribution to explicit knowledge about how children encode knowledge in writing for different specific purposes. In this study the information comes from student texts and can be expected, for example, to inform teachers with respect to knowing what to teach next in order to extend their students, or what would be developmentally appropriate texts to model for the students i.e. for designing effective curricula for student learning. Secondly, while knowledge-building has been examined at the secondary level (e.g. Martin 2013; Maton 2013), where very high stakes assessment takes place, the imperative seems to be felt less at the primary level. Even in the lower grades of schooling assessment is often via individual written performance, and often officially so – the Australian NAPLAN (National Assessment Program – Literacy and Numeracy) testing system, conducted Yearly with students in Years 3, 5, 7 and 9, is but one example. However, scant attention is paid to how students should develop appropriate writing (Freebody 2013). Understanding which linguistic elements are functional in creating the sorts of meanings that are expected in the schooling system is important for accurate and effective assessment of students’ progress. Thirdly, writing is important in preparing for life beyond institutionalised education. These concerns have been raised convincingly in America, based on NAEP (National Assessment of Education and Progress) data, by Applebee and Langer (2009) within the context of K-8 writing and amplified by Addison and McGee (2010) in the broader context of high school and college writing. The acquisition of literacy begins in primary school where the writing (and reading) taught is relied on as foundational for students accessing and responding appropriately to the more technical and unfamiliarly packaged genres in the secondary years and beyond (Martin 2013).

New curricula require teachers to teach in context, but currently problems arise, to which this study provides a way forward. For example, a range of pedagogical problems faced by teachers who attempt to explicitly improve writing through including grammar in their teaching has been identified (for example, Cajkler &

Hislam 2002; Myhill, Jones & Watson 2013), a key problem being the lack of teachers' knowledge about language, and a lack of a metalanguage for talking about language, leading to very generalised feedback to students, such as 'vary your sentences' (Myhill, Jones & Watson 2013, p. 86). These sorts of difficulties confirm the importance of helping teachers to enrich their own subject content knowledge with knowledge of the linguistic means through which it is presented. Providing explicit information about linguistic features of writing underpins this imperative, and can contribute to curriculum and syllabus decisions, can support the development of teacher resources such as classroom practice as planning units of work, and deciding which texts to model for students.

In a deeper sense, the study offers insight in terms of issues of, for example, social equity, from the point of view that it makes explicit the demands of literacy in the transition to middle school. Hence the study is not simply an academic exercise in identifying developmental trends in certain features of writing, but has a more profound rationale in delineating the aspects of writing required as students move into the increasingly dense, abstract and technical literary expectations of secondary schooling.

1.2 Research Questions

The research aims to identify key indicators of development in primary writing by making explicit the way different linguistic tools are used in primary school writing and investigating whether and how these manifestations differ according to different generic demands placed on students. This aim arises from the proposition that there are important developments in certain language features in the writing of students during their schooling and that these can be described.

In particular, the objectives of the study are:

- to identify linguistic resources which contribute towards successful writing in the late primary years, particularly in relation to the kinds of meanings valued at this stage of schooling across a range of curriculum areas;

- to investigate how the use of such features varies in relation to the interplay between the variables of grade level and writing purpose; and
- to contribute to a taxonomy of such features that can be used in evaluating the written texts constructed and interpreted by students in late primary school.

The following research questions facilitate the realisation of these objectives:

- 1) What linguistic resources are primary students using to make meanings in response to the demands of schooling?
- 2) How do the linguistic resources vary with regard to age in different curriculum and learning contexts (represented by different genres)?

The justification for and importance of this study will become increasingly clear as a survey of the literature is undertaken and the relative lack of explicit knowledge about what constitutes ‘good writing’ in childhood becomes apparent. Only with explicit knowledge, for example, can teachers be armed to identify strengths and plan for remediation and extension. With this in mind, we turn now to establishing the context for the study with respect to reference to the research literature. This will be presented in Chapter Two along with an outline of the theoretical framework underpinning the study. Chapter Three provides a description of the methods involved in collecting the data for the study and of the analytical framework employed in the treatment of the texts. Chapters Four, Five and Six present the findings associated with the three genres under study – Narratives, Expositions and Reports. Chapter Seven draws together the findings of Chapters Four, Five and Six and provides a contrastive analysis, and Chapter Eight presents discussion and final conclusions.

2 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Literature Review

In this section research literature from a number of relevant fields of enquiry will be reviewed in order to establish a context for the research to be reported here and to inform the study both theoretically (this chapter) and methodologically (next chapter). These fields include research on children's writing in general (Section 2.1.4); studies of literacy in the primary years (Section 2.1.3) and in the middle years of schooling (Section 2.1.2); and socio-cultural literacy research, specifically studies involving Systemic Functional Linguistics (SFL) and the integration of SFL into school based literacy practices (Section 2.1.5).

2.1.1 Introduction

Children's written language has been the subject of numerous studies, encompassing many diverse aspects. As an indication of the wide-ranging perspectives, there are studies that deal with issues of pedagogy / context, such as the impact of the teacher (e.g. Sinclair 1988); pedagogies for teaching writing (e.g. Haneda & Wells 2000); the process of composing (e.g. Graves 1983); revisioning approaches (e.g. Chanquoy 2001); and the development of imaginative writing (e.g. Cowie 1983). There are studies that deal with teaching/learning strategies, such as the use of journals (e.g. Platt 1991); the use of portfolios (e.g. Calfee & Freedman 1996); the role of peer and teacher interactions (e.g. Parsons 1992); and the role of talk in writing (e.g. Nelson 2001; Myhill 2009). There are studies that deal with the expression level, such as morphological development (e.g. Carlisle 1996; Green *et al.* 2003); the development of spelling knowledge (e.g. Bear & Templeton 1998; Hughes & Searle, 2010); early name writing and the transition to conventional spelling (Levin *et al.* 2005); and word frequency analysis (e.g. Lo Bianco, Scull & Ives 2008). There are studies that deal with sentence structure (Hunt 1965; Loban 1976); assessment of writing (Swayze & Wade 1998); and gendered issues (e.g. Alloway & Gilbert 1997, 2002; Bourke & Adams 2012); There are studies that deal with the writing of bilingual children (e.g. Hudelson 1989); of children in English as a Foreign Language programs (Bae & Lee 2012); and of children for whom English is 'additional' (e.g.

Cameron & Besser 2004).

The range of studies touched on above have investigated writing at different phases of children's growth, from the very young and their emergent literacy (e.g. Sulzby 1996), through school entry marking the challenges of becoming aware of differences between speech and writing (e.g. Bissex 1980; Dyson & Freedman 1991), through years in the primary or elementary school (e.g. Hunt 1965; Harpin 1976; Perera 1984), extending through the high school experience (e.g. Britton et al. 1975; Myhill & Jones 2006; Myhill 2008; Christie & Derewianka 2008), and beyond to tertiary education. The relevant periods for this research are the primary years and the middle years. We will look first at the middle years, then focus on the site for this study, the late primary years.

2.1.2 Middle years literacy research

A research area where one might expect to find a focus on literacy in the upper primary years is in studies of the transition between primary and high school. The 'middle years' of schooling – in the state of New South Wales (NSW) these years span Years 5 to 8 – are increasingly being recognised as being critical in the development of students as learners. However, attention is given to many middle year issues other than literacy and, as will be seen, such attention that is given to literacy does not focus on writing development. Concern for the literacy development of students during the 'middle years' was sparked in the sixties by adverse reports (e.g. Nisbet & Entwistle 1969) and confirmed in influential Australian studies such as *100 Schools Project – Literacy Programs Study* (Rowe 1991, 1995) and the *Victorian Quality Schools Project* (VQSP; Hill, Holmes-Smith & Rowe 1993). Findings of a flattening of growth in students' literacy levels during early adolescence and that some students leaving primary school had marked problems in high school, especially in English, echoed the earlier findings of poor transitioning in an American study (Ward 1982). In NSW, the federally funded study 'Literacy in Transition' was set up principally to investigate children's literacy in the years of transition from primary to secondary school. It followed students from thirteen contrasting primary schools to four high schools, gathering data on literacy

practices and strategies, and giving recommendations in a three-volume report (Cairney, Lowe & Sproats 1994a,b,c; Cairney et al. 1998). However, this canvassed a broad range of factors and did not look at writing beyond identifying the mismatch of emphasis between the two levels - mastery of skills in primary school to their use in secondary school, and a change in proportion of time spent on different writing tasks: in the categories of transcribing/copying (about the same), short answer pieces (an increase) and extended discourse (a decrease). Its recommendations revolved around promoting transition programs, curriculum discussion and professional development. It contributed to the general misalignment of established practices and emerging expectations for middle year “literacy”, which was also recognised internationally at the time (Hosking & Teberg 1998) and the on-going need for literacy projects to meet the needs of, and even engage, middle year students was still evident a decade later (Ryan 2008).

An overview of the philosophy and principles of middle years schooling in the Australian context has been provided in Pendergast and Bahr (2005), confirming that the ‘middle years’ is now recognised as a crucial stage of schooling, where the range in student achievement widens and progress for some students slows significantly (Culican 2007). Over the past ten years or so middle years literacy has received a great deal of attention in educational policy. In several states of Australia, this has been manifested in the creation of specialised middle years literacy consultants and a range of resources to support students in their literacy development (e.g., Henderson 2012).

Given the recognition of the importance of specific emphasis on these transition years, it is surprising that there has been very little research into student literacy development that relates particularly to the middle years of schooling. But there is virtually no evidence of a direct research focus on literacy, let alone on writing. Even when literacy is of interest, the term tends to be very general and does not often include a focus on writing. It often means reading, sometimes includes spelling and vocabulary. As an example, McLoughlin (2010) reports on the Middle Years Literacy (MYL) 5-9 Project of Victorian Catholic Education Office; when the focus turned from policy and teacher support to skills, the focus question was restricted to

‘What did teaching reading skills look like beyond the early years and how were they taught?’ (p. 20).

In Australia, a dedicated journal, *Literacy Learning: The Middle Years*, established by the Australian Literacy Educators’ Association (ALEA) in November 1993, is where one might expect to find evidence of targetted middle years literacy research. The journal’s central concern, however, is not children’s literacy practices themselves, but issues such as policy (e.g., Czislowksi-McKenna 2005), professional development for teachers (e.g., Gill Kostiw & Stone 2010) and diversity (e.g., Rennie 2009). While not strictly intended as a reporting instrument for general research, it is curious that there is little dealing with or referring to understanding the nature of writing development in these years.

Abroad, there is an abundance of research on elements of writing instruction that teachers employ to improve the writing of students in primary and middle schooling, including approaches to the writing task such as writing strategies for planning, revising and editing, either alone (e.g., De La Paz & Graham 2002) or collaboratively (Yarrow & Topping 2001); setting ‘reachable goals’ (e.g., Ferretti et al. 2000); explicit versus process writing approach (Yeh, 1998); use of computers (e.g. Dalton & Hannafin 1987); approaches to sections of the writing task (pre-writing for generating or organising ideas (Brodney, Reeves & Kazelskis 1999); inquiry activities to help students develop ideas for writing (e.g., Hillocks 1982); the study of models of good writing (e.g., Knudson 1991), approaches for improving specific skills such as summarisation (e.g., Chang et al. 2002) and sentence combining (e.g., Saddler & Graham 2005) and using writing itself as a learning strategy (e.g., Konopak, Martin, & Martin 1990). Here, the focus is on teaching and classroom practice rather than on writing development. Many of the studies report ‘improvement’, but just what constitutes ‘improvement’ is far from clear. For one large scale United States literature review interrogating such strategies as those outlined above, the ‘outcome’ studied was ‘writing quality’, defined in terms of ‘coherently organized essays containing well-developed and pertinent ideas, supporting examples, and appropriate detail’ (Graham & Perin 2007, p. 14). On investigating the actual rubric used, it was found to include two sections, ‘competence at written composition’ and ‘mechanics of written composition’. For the

best response in each section, attainment was judged as follows. Competence at written composition: (i) clearly and appropriately responds to the prompt, (ii) fully develops one main idea with many examples, OR with several extended/elaborated examples, (iii) is clearly and coherently organized, (iv) uses specific and appropriate details); ‘mechanics of written composition’ (word choice, sentence structure, punctuation spelling: for the best response: (i) uses accurate and appropriate word choice, (ii) uses correct sentence structure throughout, (iii) correctly uses punctuation marks and capital letters, (iv) has few if any spelling errors (Needels & Knapp 1994, p. 349). It is clear that the teachers’ professional and informed judgement is called into service here – as is appropriate. It may be asked whether teachers explicitly know what written linguistic constructions are suitable for the students’ level of learning. My research seeks to make visible the nature of linguistic development in writing, contributing to teachers’ knowledge and at the same time shed light on the developmental pathway, for in none of these studies is the focus on the nature of development of writing.

In all the research into the middle years – and even literacy in the middle years – there is scant attention paid to what students’ writing development looks like in this period. The research tends to be blind to language itself, preferring to deal with issues of context, policy, motivation, pedagogy, and so on, without a sound evidential base regarding students’ literacy development, particularly with respect to writing. Attention is paid to everything else but evidence of literacy development, particularly how linguistic repertoires expand in response to increasingly complex contexts for writers provided by educators and curriculum.

In spite of the general lack of research into writing development in the middle years, a couple of studies have dealt with it. Green (1997) recounts the experience of one child encountering different literacy demands in moving to high school and draws on prior studies to rationalise her interest in the “problematic nature of transition” (p. 2). While Green’s work does acknowledge the different demands of different curriculum areas and does classify writing in terms of the purposes of writing, there is little acknowledgement of the complex understandings of how language itself is implicated in constructing genres, and still less of the linguistic features of those genres.

A related study of children in transition from primary to secondary school was conducted by Ness Goodwin in Queensland in the early 1990s (Goodwin 1999). Goodwin researched the types of writing and language demands of the last year of primary school compared to the first year of high school. While Goodwin's study is explicit about the relationship between literacy and language practices, it tracked and documented only one student, thus presenting an individual experience rather than a description of development.

These two small studies give insight on the writing demands placed on students who are transitioning from primary school to secondary school, but that there are only two reiterates the paucity of research into writing development in this critical age group.

The purpose of this brief overview has been to position the present study in the broader field of literacy research in middle schooling in Australia. The overview, in summary, has identified a significant gap in the research literature regarding middle school literacy in Australia and internationally. Despite the ongoing interest in students in the early years of adolescence in education policy and practice, important issues relating to the literacy practices of these students are not considered in the research studies canvassed above. In particular, none of the studies has examined:

- what constitutes 'good writing' in the transition years
- the development of linguistic resources needed to produce texts recognised as important for academic success
- the distinctive literacy demands associated with increasing abstraction and specialisation required as students prepare for integration into secondary school subject areas

The present study seeks to address these questions in relation to the early years of the primary-secondary 'transition', the late years of primary school. It does so by utilising an approach well adapted to deal with these unanswered questions, namely Systemic Functional Linguistics (SFL). Before turning to a review of the current status of SFL in the Australian educational space let us review what research says about children's writing development, first in the primary years, then more generally.

2.1.3 Writing in the primary years

Several studies look at the writing of children in primary schools. Early studies in the United States that included primary school writing were carried out by Loban (1963), examining grammatical structures in writing of students in Kindergarten through Year 12, and Hunt (1965), who examined texts written by students in grades 4, 8 and 12. In the United Kingdom, Harpin (1976), in a large-scale study, looked at structural components in the writing of children aged 7-11, considering syntax, vocabulary, and word count, and found general indications of development; however, in this study, little account was taken of contextual factors. A significant study conducted in primary years writing in the United Kingdom was that by Perera (1984, 1990). A main interest for her was the interaction between the speech and writing of 8-12 year olds, finding that there are constructions specific to each, and that the more complex ones occur in writing. In later studies researchers have looked the usage of specific features, such as subordination in the writing of 5-9 year olds (Allison, Beard & Willcocks 2002) and features of sentence structure in different key stages (Hudson, 2009). Beard and Burrell (2010) examined narrative writing in 9 and 11 year olds, focusing less on linguistic features than on organisation and overall effectiveness.

In general, such studies have tended to focus on a single aspect of writing and/or a specific age grade or group of students. The study here differs from these in that it focuses on linguistic evidence of writing development over time. To do so, it spans several school-year groups, namely, Years 3 to 6, describing writing development in terms of the deployment of increasingly complex and sophisticated linguistic resources.

2.1.4 Writing development

The descriptions of writing development referred to above can generally be regarded as belonging to one of two major categories. *Structural* descriptions have regard to morphology and syntax, focusing on the grammatical forms within sentences, while *functional* descriptions take the wider context of the sentence into account, either at text level or beyond. Earlier descriptions tended to be structural. Hunt's (1965) small-scale study identified a range of grammatical structures used by children at grades 4, 8 and 12, but no linguistic markers of development, identifying rather markers of mature style. Loban's (1976) longitudinal K-12 study of written and oral development found that certain syntactic structures in writing (e.g. sentence and subject length and use of embedded structures) characterised different ages. Harpin (1976) also investigated structural measures in the writing of children aged 7-11 and found, with age, increased sentence and clause length, decreased use of personal pronouns and, when considering subordination, a slow move away from using 'and'; but he made no generalities, stressing the importance of creating a "portrait of a developing child" (Harpin 1976, p. 3).

Later studies began to take into account features other than the purely sentence-level grammatical one. Kress (1994), for example, provided a linguistic account, going beyond the sentence to the text level, concerned with the differences between oral and written units. Perera (1984, 1990) conducted a significant survey of the development of the writings of children aged 8-12, analysing the texts at sentence level but within the parameters of text organisation and writer relationship to both subject matter and potential readers. She noticed a move towards complex clause and sentence types, increased use of modals and of passive voice. Fang (1998) studied the writing of first graders according to some grammatical features in relation to their meaning-making potential, finding a disappointing lack of growth. Allison, Beard and Willcocks' research of 7 to 9 year old children's writing (2002) found that the use of subordinate clauses varied with the task undertaken (though not much

variation with respect to the formal genres of schooling, being all but one stories) – not a developmental study, but a snapshot.

Recent large studies in the United Kingdom (Myhill & Jones 2006; Myhill, 2008) reported on linguistic features of the writing of high school students, 13 and 15 year old adolescents, conducting a detailed analysis of texts to determine linguistic patterns that may indicate a trajectory of development. Beard and Burrell (2010) investigated narrative writing in 9 and 11 year olds, using repeat design over two years and scoring factors associated with purpose and organisation; grammar and style; handwriting and punctuation.

There are generalisations that can be observed in the studies above. A lot of attention was focused on ‘subordination’. All researches found an early dependence on ‘co-ordination’, then a move to using more subordinate clauses: Perera (1984) found an increase in the variety of subordination clause type, while Allison, Beard and Willcocks (2002) found more subordination than did Harpin (1986), including the use of ‘adverbial clauses’, and found some evidence that the use of subordination varied with the type of task; Loban found increased use of adjectival dependent clauses. Loban (1976), Perera (1984) and Harpin (1986) all concluded that sentence/clause (or ‘communication unit’ or ‘T-unit’) length increased with time. It seems that, generally, with age, there appears to be an increase in length or complexity of many linguistic constructions, including sentence length, clause length and the noun group, what Applebee (2000) terms an ‘increasing degree of structural complexity’ (p. 97). That general observation has prompted a number of investigations into the development of writing to produce theoretical developmental phases. Britton *et al.* (1975) hypothesised an ‘expressive’ matrix to project ‘transactional’ and ‘poetic’ writing to facilitate describing development in attaining expertise; ‘expressive’ describes the writer’s function in producing ‘transactional’ writing, for an external audience, or ‘poetic’ writing for the self as audience. Perera (1984) identified four descriptive phases through which a writer will progress: *preparation* (learning the necessary mechanical skills), *consolidation* (writing spoken-like forms – possibly around 7 years of age), *differentiation* (composing distinctively written forms – possibly around 10 years of age) and *integration* (controlling both oral and written forms through appropriate linguistic choices).

Myhill (2009) proposes three overlapping ‘developmental trajectories’: firstly, a shift from speech to written language patterns, secondly, increasing capacity to express experience in writing, and thirdly, the ability to *transform* the experience to achieve impact on readers. Her trajectories differentiate between simpler texts that appear more ‘spoken’ and those that are more ‘written’, and they take into account the writers’ apparent awareness of audience, noting significant changes in sentence length and control, clausal make-up, expansion and variety. Christie (2010), building on previous work including with Derewianka (Christie & Derewianka 2008), proposes four phases loosely associated with the ages of 6 to 8 years, 9 to 12 or 13 years, 14 to 15 or 16 years, and the last from 16 to 17 or 18 years on and so into adulthood. These phases are marked by moves from a congruent to a non-congruent grammar and into abstraction. It is anticipated that the study described here will contribute to further explicating such a development, so that a fuller picture will emerge.

2.1.5 Systemic Functional Linguistics writing research

The approach adopted in this study is based on Systemic Functional Linguistics (SFL), as developed by Halliday and colleagues. (See, for example, Halliday & Matthiessen 2004.) Underlying this use of SFL is the idea that there is a language basis both for cognition (Halliday & Matthiessen 1999) and for learning (Halliday 1993) and that literacy and linguistics are closely connected (Halliday 1996). Lying behind this again is the idea that the original development of language by an infant or young child may be understood in functional terms (Halliday 1975; Oldenburg 1986; Painter 1999b).

There have been several significant studies involving institutionalised student writing using the SFL framework and associated genre-based pedagogies. In the late 1970’s researchers collected approximately 2000 texts from Sydney DSP (Disadvantaged Schools Program) schools and analysed them according to genre, revealing a large imbalance in the types of writing that was being ‘taught’ – an emphasis on personal recounts at the expense of more challenging genres such as information reports, explanations and arguments (Martin & Rothery 1981; Martin 1984; Martin & Rothery

1986a,b; Rothery 1986; Christie & Martin 1997; Martin & Rose 2003, 2008). Subsequently, the 'Language and Social Power' project was launched, designed to help teachers of Years 4 to 8 teach factual genres in Social Science, History and Geography (Callaghan & Rothery 1988). This was followed up with the three year 'Write It Right' project, which extended the work of the 'Language and Social Power' project into high schools and beyond. Related work focused in primary schools (Rothery, 1985; Rothery 1991; Martin & Rothery 1993). Meanwhile, Snowdon (1995) examined the functional grammatical model in young children's writing development and Daniels (1998) reported on lexical cohesion as an indicator of writing development in very young children. The use of functional grammar in language teaching in both middle school (Marshall 2000) and late primary (Balzarolo 2010) has also been described by practising teachers.

Along with these general developments, there have been specific SFL studies on particular subject areas. For example, Lemke (1990), Halliday and Martin (1993) and Martin and Veel (1998) have treated writing and reading in science. Likewise, Rothery and Stenglin (1997, 2000) and Macken-Horarik (2006) deal with subject English. As a final example, historical discourse has been the subject of extended study over the last two decades (Veel & Coffin 1996; Martin 2002b, 2003; Schleppegrell 2004; Coffin 2006a,b; Derewianka 2007; Derewianka & Coffin, 2008; Coffin & Derewianka 2009).

Further studies have fleshed out some details of the developmental sequence of language features. For example, studies have considered the transition from spoken to the written mode (Painter 1986, 1999a), the use of cohesion in elementary students' writing (Cox, Shanahan & Sulzby 1990), subject-specific literacies (Unsworth 2000), the growth in complexity of the language of two children in later childhood (Derewianka 2003), the differences between spoken and written language in first graders (Fang 1998), genre development and the transition to secondary schooling (Foley & Thompson 2003) and the development of one young child's control over complex grammatical features (Kress 1994).

While the above-mentioned studies have provided valuable insights into children's writing development, none has yet attempted a comprehensive and systematic study

of all the features thus far identified and how they are employed by students of different ages in different curriculum and learning contexts. The closest approach to this goal is provided by “School Discourse: Learning to Write Across the Years of Schooling” (Christie & Derewianka 2008). Remarkable in providing in a short compass a broad sweep across four age stages, spanning in range from about 6 to about 18 years of age, it necessarily is unable to deal with each stage in sufficiently great detail. In contrast, the research reported in this thesis focuses more specifically on Years 3 to 6. Moreover, and appropriately for informing the work of practising teachers, “School Discourse” is organised around three standard school subject areas (English, History and Science). Rather than being arranged with respect to the school subjects, the present thesis is organised instead around three genres: *Narrative*, *Exposition* and *Report*.

The study reported here first collects and then analyses written texts of a number of student cohorts at different stages of late primary schooling. Analysis of the texts reveals the extent to which the use of various linguistic resources is evident in the written texts of students in different stages of primary school, making very explicit those linguistic resources. In doing so, this study builds on and extends the body of SFL work and serves as the basis for further developments in policy, pedagogy, curriculum and assessment.

2.2 Theoretical Framework

2.2.1 Introduction to Systemic Functional Linguistics

The main theoretical framework for this study is provided by Systemic Functional Linguistics theory (SFL) as developed by M. A. K. Halliday and colleagues (e.g. Halliday 1978; Halliday & Matthiessen 2004) and including seminal work on genre theory by educational linguists like Martin (1985), Christie (2005) and colleagues (e.g. Martin & Rothery 1986; Christie & Martin 1997; Martin & Rose 2003, 2008). It is an approach that is motivated by a commitment to literacy and language education, with an especial interest in social equity in schools and migrant education (Feez 2002).

SFL provides an established base for language and literacy studies, as explained above in Section 1.1.3; within Australia alone, research has been undertaken within the SFL tradition over the past 30 years into both language development (Derewianka 2003; Halliday 1975, 1993; Painter 1984, 1991, 2000, 2004a,b; Torr 1997) and literacy development from kindergarten to Year 12 (e.g., Christie 1998, 2003, 2005; Derewianka 1995; Halliday 1996; Christie & Misson 2002; Painter 2004b; Christie & Derewianka 2008). SFL has had a significant influence on curriculum development and literacy practices in Australia, including the distinctive genre-based literacy programs in schools and tertiary areas (Christie 1992; Martin 1992, 1993, 1999a; Cope & Kalantzis 1993; Hasan & Williams 1996; Rothery 1996) and has informed many associated pedagogical resources (Gray 1985; Macken *et al* 1989; Christie *et al.* 1990; Feez 1998; Derewianka 1990, 1998; Hammond 2001; Droga & Humphrey 2002; Derewianka & Jones 2012). It informs the Knowing about Language strand of the new national curriculum for English (Derewianka 2012). This concerted work has had a substantial impact internationally, feeding into and informing research, curriculum development and teaching practices, particularly through the uptake of the use of genre (in the form of ‘text-types’) (e.g., Hyland 2002; Johns 2002; Schleppegrell & de Oliveira 2006).

SFL is appropriate to the exploration of literacy practices because it provides a particularly rich apparatus for the detailed analysis of texts. It is a theory that takes into account the social context (in this case, institutionalised schooling) of language use. Its particular contribution with regard to literacy is in making visible the linguistic resources used to generate the kinds of texts required of students in educational contexts. It treats the whole: from the context in which the text is produced, through to the text itself, and then down through the ranks to the foundational linguistic resources. From a different perspective, the theory goes beyond the formal description of language (such as syntax) to look at the relationship between linguistic form and the meanings constructed by those forms. This vital relationship between the semantics and the grammar is missing from many other accounts of grammar. (Halliday 1978; Halliday & Matthiessen 2004; Eggins 2003; Martin, Matthiessen & Painter 1997, 2010; Martin 2000; Martin & Rose 2003).

2.2.2 SFL and context

According to Halliday, language is a *social semiotic system* of potential meanings, meanings which are drawn on by the speaker or writer or communicator or painter or architect or primary school student according to the particular context in which the language is functioning. Any text systematically encapsulates the “context in which the text unfolds itself”, incorporating both the “social environment” and the “functional organisation” of language (Halliday & Hasan 1985, p. 11); that is to say, language both construes and is constitutive of context. Halliday’s model of language draws on the pioneering work of anthropologist Malinowski (1923, 1935), which posited a role for the concept of context in accounting for the shaping of meaning in the “primitive” (or unwritten) language he was studying, a role which he later extended to all languages. From this early conceptualisation, the development of theories of context for oral and written language has been along several paths and through several (and on-going) re-orientations and revisions (see accounts in Halliday 1999; Martin 1992, 2002a) to become an intimate aspect of the social theory of language which informs pedagogies evident in current curricula and that educational researchers in SFL employ today.

The dynamic relationship between context and the language system can be modelled as in Figure 2. 2-1, where the double-headed arrows importantly represent the interdependency of language and context, and the way in which language “construes and is construed by and, over time, reconstrues and is reconstrued by” the context (Martin 1999b, p. 35).

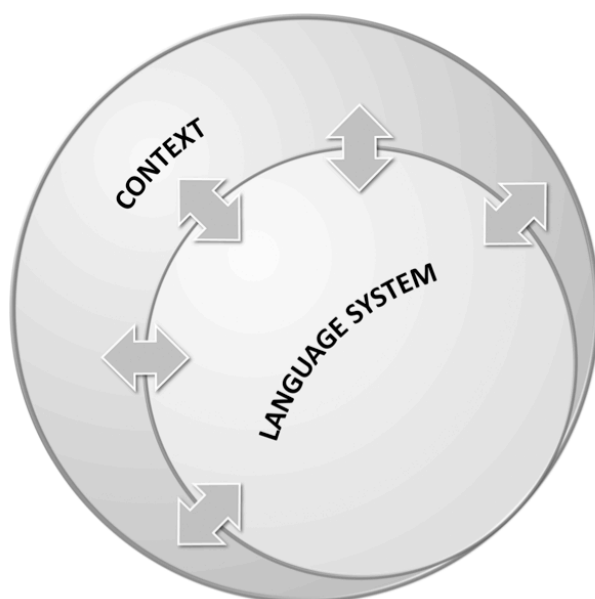


Figure 2. 2-1 The relationship between the language system and its context (*from Derewianka & Jones, 2012, p. 5*)

The context will vary according to *cultural* factors and, in any given instance, according to *situational* factors as well. Thus, the contextual hypersphere can be viewed as having (at least) two dimensions.

Genre

The concept of cultural context is central to the notion of **genre**, defined in educational linguistics as *staged, goal oriented social processes* – genres are recurring configurations of meaning, which function to enact the social purposes of a particular culture (Martin & Rose 2008, p.5). The conceptualisation of the interplay between the context of culture that is institutionalised schooling and the language system has allowed the identification of genres – or *social purposes* – that are considered valuable in education. In the school community, language is used for a

multitude of useful purposes, such as recounting what happened, explaining a phenomenon, arguing for a position, giving information, creating stories or literary works and so on. These purposes become formally known as genres. Researchers characterised them by a close examination of the meanings and identification of “recurrent global patterns” (Martin & Rose 2008, p. 4) present in texts and named them Recount, Explanation, Argument (or Exposition), Report, Narrative and so forth, some more related to each other by means of the configurations of the global patterns. By way of example, the network for story genres is reproduced in Figure 2. 2-2, where the distinguishing features of the related genres are presented as a series of choices (indicated by the horizontal arrow).

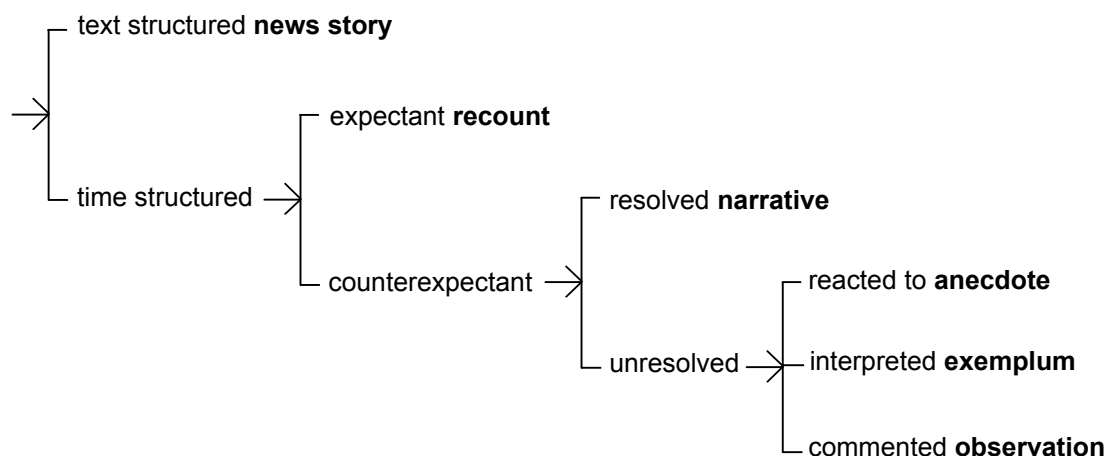


Figure 2. 2-2 Network system of story genres (from Martin & Rose 2008, p. 75)

Recurrent patterns that were “local” rather than “global” resolved themselves into the stages distinctive to each genre. The stages, and the even more instance-specific phases, are recognisable by the distinctive linguistic patterns deployed (Rothery 1996; Cope & Kalantzis 1993; Martin 1992, 1997; Christie & Martin 1997; Martin & Rose 2008; Rose & Martin 2012). The research reported here helps to establish what are key language features characteristic of developmental stages in three school genres – Narrative, Exposition and Report.

Narratives are a story genre, one of the most culturally important and therefore one of the most studied of the genre families (Martin & Rose 2008). As seen in Figure 2. 2-2, there have been several written story types identified (Rothery 1991), two of which are particularly incorporated into the primary schooling years, the recount and

the narrative. While all stories involve some common features (including an orientation element and a final closure), their specific social purposes distinguish them. That of a narrative is to entertain by presenting a problem that needs solving; the key feature of a narrative is the presence of a complication. Many narratives also involve an evaluative element, not always present as a formal stage, and sometimes a comment element. Thus the stages for a narrative are, (with ‘^’ indicating sequence, and ‘(...)’ an optional item), *Orientation ^ Complication ^ Resolution ^ (Coda)* (Board of Studies 1998, p. 203).

Reports are typically factual texts, found in several curriculum areas including science, natural science and school health (Christie 2005). Socially, they are “used to present information about something ... generally (describing) an entire class of things, whether natural or constructed” (Board of Studies 1998, p. 131). They can differ somewhat, depending on the field (Derewianka & Jones 2012), but the overall staging is the same: the topic is firstly introduced and perhaps defined or classified, then it is described, generally through the presentation of ‘bundles’ of information about different features. Thus, the stages for a report are *General Statement ^ Description*.

The social purpose of Expositions is to argue a case for or against a particular position or point of view (Board of Studies 2006, p.70). Children in primary schools are taught to write simple expositions which involve the presentation of a main thesis or statement of position supported by a subsequent argument or series of arguments and ending with an element that reiterates the thesis. Thus, the stages for an Exposition are *Statement of Position ^ Argument/s ^ Reinforcement of Statement of Position*.

Because the differences between these genres are made manifest in the language configurations used to enact them, which are chosen from all the resources available in the language system, it follows that success in deploying the genres will increase as the selection of genre-appropriate language features becomes more accomplished. These genre-appropriate features are accessed through register.

Register

Within the overarching cultural context providing the purpose for the text, a second band of contextual factors comes into play in any given instance of textual creation. These factors are termed *situational* factors. As these contexts vary, so do the choices available in the language system. These situational variables were first theorised through research into the oral language development and development of young children (Halliday 1975; Painter 1984; Torr 1997). In describing the way that young children use language, the functions that language accomplishes for them as they grow, and how they 'learn to mean' through language, it was observed that language functions tended to cluster into three dimensions of the situation in which the text is produced: (i) the way in which language represents our experience of the world or *field*; (ii) the way in which language realises roles and relationships in interaction or *tenor*; and (iii) the way in which language forms coherent and cohesive texts or *mode*. These functions can be mapped on to the model of language as in Figure 2. 2-3.

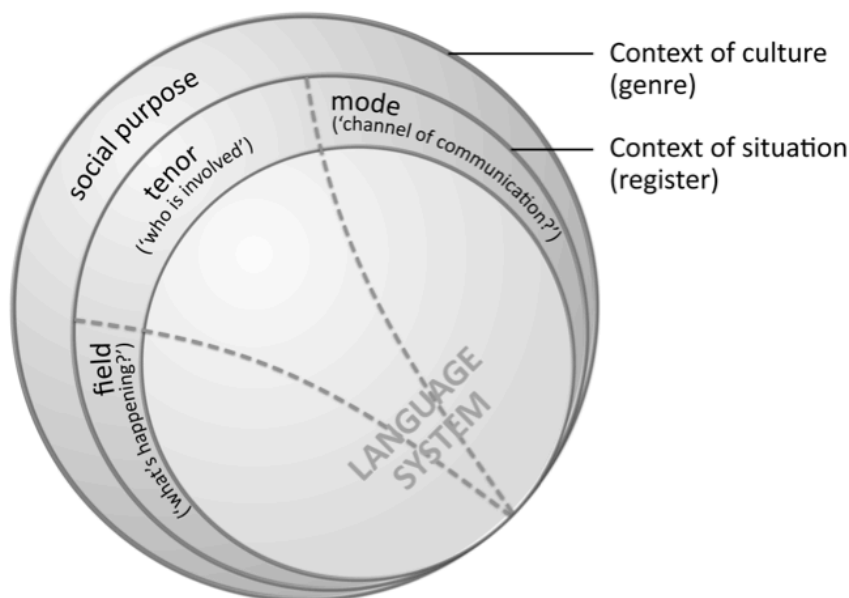


Figure 2. 2-3 Features of context and functions of language (from Derewianka & Jones 2012, p. 12)

In terms of the way that field, tenor and mode are expressed in the language system, the model can now be filled out with respect to the functions of these three elements with the overall context of situation – expressing experience (field), interacting with others (tenor) and structuring text (mode), Figure 2. 2-4.

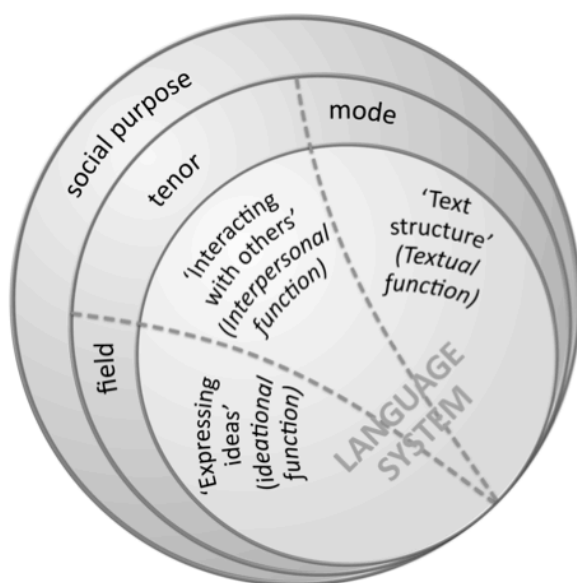


Figure 2. 2-4 The functions of language and their contexts (from Derewianka & Jones 2012, p. 37)

2.2.3 Context of situation and the metafunctions

These functions are formalised as (i) the **ideational**, (ii) the **interpersonal** and (iii) the **textual** functions. They operate simultaneously to constrain choices in the language, are known collectively as **metafunctions**, and are realised in texts by the choice of particular linguistic resources. These relationships between text and its context are represented in Figure 2. 2-5.

CONTEXT		TEXT
SITUATION	(realised by)	FUNCTIONAL COMPONENT
Our experience of the world (field)		Ideational meanings
Roles & relationships in interaction (tenor)		Interpersonal meanings
Coherent & cohesive texts (mode)		Textual meanings

Figure 2. 2-5 Relationships between context and text (adapted from Halliday & Hasan, 1985, p. 26)

The downward-right-pointing arrow represents a key concept in SFL – the concept of **realisation**. The shorthand notation for ‘A is realised by B’ is ‘A \searrow B’. The arrow indicates the encoding of the meaning. Meaning becomes available to us because it is

realised in a particular way in the writing (in our case). These relationships provide a consistent and coherent analytical framework for making explicit the way in which the context is construed in linguistic patterns.

A fuller tabulation of the connection between variables inherent in the context of situation (the field, tenor and mode of discourse) and related metafunctional resources is provided in Figure 2. 2-6.

Context of situation	Field ('what is going on': our experience of the world)	Tenor ('who is taking part': roles and relationships in interaction)	Mode ('the role assigned to language': creating coherent and cohesive texts)
realised by:	↘	↘	↘
(meta) function	ideational	interpersonal	textual
sets of grammatical resources for realising the metafunctional meanings	transitivity, logico-semantic relations, etc.	mood, modality, person, polarity, attitudinal lexis, etc.	theme, information focus, cohesive relations, etc.

Figure 2. 2-6 Contextual variables and related metafunctional resources

The ideational, interpersonal and textual metafunctions can thus be seen to realise three complementary aspects of context: the field being developed ('what's going on'), the tenor relationships between the interactants ('who is taking part'), and the mode in play ('the role assigned to language or other semiotic systems'). Examples of sets of grammatical resources for realising the respective metafunctions are given in the final row of Figure 2. 2-6.

The key descriptions of field, tenor and mode in the first row of Figure 2. 2-6 allow us to explore the context of situation, or the register. They allow the relationship between the semantics and the grammar (or lexicogrammar) to be mined. In the case of field, we are concerned with our experience of the world. Of any happening we can ask, "What is happening? Who is involved? Are there any other details?" One of the strengths of SFL is that it allows us to answer these questions grammatically. Where other grammars have no capability of focusing at a level above the word, SFL allows meaning to be 'chunked'. We can thus identify a meaningful unit whether it is a word, or a group or phrase, or a combination. With reference to field, and in answer

to the questions, these units are labelled the *process*, the *participant/s* and the *circumstance/s*.

These three ‘chunks’ make up the ‘elements’ of the transitivity system, and development can be monitored through an analysis of the way that they are realised – the grammatical forms that constitute them. This will be elaborated on in Chapter 3.

2.2.4 Focus on the ideational metafunction

A full description of a given text would include comment on the interplay between all three metafunctions. However, while all three metafunctions are interdependent in terms of explaining the full meaning of any text, they can be separated and examined separately as required. In fact, for analysis, they need to be looked at separately. I decided to start this study with the ideational, because of its initial reach - most items in a clause are accountable in terms of the contribution they make to the experiential meaning at clause level. The meanings are structured segmentally, with clearly separated constituent parts. In contrast, interpersonal meaning is built up prosodically and textual meaning culminatively over the whole text, so that less can be said at clause level. The original intention was to present all three metafunctional aspects of the texts, but the volume of data and the amount of analysis put some temporal and practical constraints on the study. Some of the resources from other metafunctions (interpersonal and textual), the aspects of meaning to which they relate (tenor and mode) and the associated grammatical resources (mood, modality, person; theme, information, cohesive relations) are surveyed in passing, without giving a systematic description, but merely noting their presence.

The heart of this thesis deals with two key grammatical resources connected to the ideational metafunction, *logico-semantic relations* and *transitivity*. These will be discussed in detail in Chapter 3 (Analytical Framework), following a description of the Method used in the research.

3 METHOD AND ANALYTICAL FRAMEWORK

3.1 Method

The research was conducted subsequent to my involvement with a large project funded by the Australian Research Council (Christie & Derewianka 2008). That project investigated key indicators of adolescent writing, involving texts from students in Years 7, 10 and 12. Indeed, my involvement with that project was one inspiration to conduct the current research. To some degree that larger study can be seen as a pilot to the present study, as it required the working through of issues of methodology and analysis as well as the practicalities of recording, collating, trialling software, developing analysis templates and so on. Thus the present study was designed with close attention to both experience in the 'pilot' and of course to its object as previously stated in the preceding chapter – to analyse and characterise the linguistic resources that are used and controlled by young writers in an institutional context. More precisely, the writers chosen were students in the school Years immediately prior to secondary school. This cohort was represented by primary Years 3 to 6 in New South Wales primary schools. In the state of NSW, the school year starts in January. A child can commence Kindergarten at age 4 provided his or her fifth birthday falls on or before 31 July of the same year. Thus children in Year 3 are usually 7 or 8 years old; children in Year 4 usually 8 or 9 years old; children in Year 5 usually 9 or 10 years old and children in Year 6 usually 10 or 11 years old.

3.1.1 Ethical considerations

Before moving on to describing the data collection and treatment in detail, it is worth mentioning the ethical issues involved in the study. Possible ethical issues related to privacy and informed consent.

Privacy may have been perceived as an issue where students' work was under scrutiny. The students themselves (and/or their parents) may well have feared that by agreeing to let me read and use their texts that their work would be assessed in some way. Likewise, teachers may have felt that their teaching methods and/or results

would be judged. It was important that for students, parents and teachers, privacy was assured. Confidentiality was promised. Students were assured that once their work was collected, it would become anonymous – their names would not be attached. Students were also reassured that their work would not be evaluated or judged. Likewise, teachers were assured that their performance was not being evaluated in any way.

Informed consent was not a problem. Potential participants (and their parents) were fully informed of the aims of the study, and how it would affect them if they agreed to participate. They were reassured that they are free to refuse to participate or, having consented, to withdraw their consent without that refusal or withdrawal in any way affecting their relationship with the University of Wollongong. Only the texts of those children whose completed consent forms were returned were eligible for the study. All required ethics protocols were followed and all required permissions obtained in carrying out the study. Negotiation of these issues of consent and privacy was through University of Wollongong Ethics Committee and the Catholic Education Office, Diocese of Wollongong.

3.1.2 Data collection

It was important that the writing samples be representative and provide reliable data for linguistic analysis. The selection of the corpus was thus considered from several perspectives: sites from which texts could be collected, what variables/parameters dictated text suitability for inclusion in the corpus, and the logistics of gathering, collating, and organising such a corpus.

3.1.2.1 Selection of the site

The study pre-selected the general site – NSW primary schools. This ‘site’ satisfies conditions of suitability as delineated by Marshall and Rossman (2006, p. 62) – (i) entry is possible, (ii) there is certainty that the desired data is present, (iii) the study be conducted and reported ethically, (iv) data quality and credibility are reasonably assured. Both the public and private school systems were considered, as each would

provide suitable data (of the desired age group and other variables) and data that is credible and produced in authentic circumstances. Each system also welcomes research as part of their on-going quality development, so access and approval to proceed with the study was not expected to be a problem.

Due to fewer bureaucratic requirements, the local Catholic Diocese was approached for this study and three primary schools across the Wollongong area were targetted – one from the north, one from the south, and one from in-between. Being from geographically and socio-economically diverse areas, the schools were intended to be representative of the majority of Wollongong schools. These three schools would provide sufficient range and diversity of students without extending the study beyond practical limits. It is reasonable to assume that such a range will be typically representative of the wider population.

3.1.2.2 Selection of the targetted texts

Since the object was to analyse representative writing in Years 3 – 6, the following parameters were considered in selecting which texts to target for collection in each school:

- Grades: four Year groups, grades 3 – 6. This key parameter is most closely related to development in upper primary and is the focus of the study.
- Genre (text type): retaining consistency of genres across all four grades to enable comparison; including factual and non-factual genres. This is a second key parameter in the study, given the theoretical framework.
- Ranking: high, middle and low (how well the task was done as judged by the teacher). In the end, only “high” ranked texts were used. This was to provide the most systematic comparison.
- Gender: both boys and girls. It was not feasible to obtain equal numbers of texts from each gender across all grades and genders. While the data regarding gender is available, no analysis of gender differences is attempted in this study.
- Language background: including NESB (non-English speaking background). There were fewer responses from students identifying as from a non-English speaking background, and insufficient numbers of texts across the grades and

genders made an analysis of differences attributable to second-language learning nonfeasible. Thus, if NESB student texts had been included, it would have added a further factor that would complicate the study beyond its scope. This, however, is an interesting aspect worthy of future research.

3.1.2.3 Collection and sorting of the data

Collection was conducted in two phases. During the preparatory phase, discussions were held with the local education authorities and permission sought to undertake the studies. In collaboration with these authorities, appropriate sites, as discussed in Section 3.1.2.1, were identified and ethical clearance was sought. Principals from the targetted schools were approached. All Principals were pleased to have such research conducted within their schools and identified co-operating teachers from Years 3, 4, 5 and 6. These teachers were briefed in each of the three schools.

Students' written texts were collected from Years 3, 4, 5 and 6 in each of these schools. The context of production beyond those factors readily identifiable from the texts themselves (e.g., subject area, topic, draft or published) was originally intended to be taken into account. However, despite goodwill on all parts, it was very difficult for me to be able to get into classrooms for observing and note-taking (e.g., for stimulus for writing, degree and nature of teacher assistance). While a couple of organised and willing teachers were able to identify in advance a suitable activity for observing and collecting, most seemed intimidated by this idea. The main suggestion from this interaction was for the teachers to bring me the finished work in the children's workbooks so that I could copy the writing tasks, and the teacher would indicate to me the level at which the students were writing, and tell me about the lesson after the event. In reality, though, this post-lesson chat didn't happen. The teacher would collect a pile of books and leave me to photocopy while he/she got back to teaching. On several occasions the class teacher was absent and left word for the fill-in teacher to give me the books. In one school I had contact with only one teacher, designated to liaise with me, who would go and get students' work books for me from the other classrooms and allow me a moment to peruse them while she photocopied the texts that she thought I meant, sometimes missing the final page of an exercise or copying the wrong texts. With a limited amount of time to give me,

she was rushed, and did some of the copying in her own time in between my visits, for which I am very grateful. Thus, for one reason or another, there was a distancing of the texts from the context of their production in too many cases to persist in pursuing this kind of information, and in the final school, I didn't even begin asking for it. Thus the parameters outlined above were identified for each text, not so much as a prior guide for collecting the texts, but as subsequent features of the texts collected.

Despite, indeed probably because of, unplanned collection practices, a large number of authentic samples of students' work were collected. The texts were initially sorted according to school and class level. Each text was marked with an identifier for year, genre-at-a-glance, school, child (indicating also gender) and level. 'Genre-at-a-glance' refers to the genre as identified in the text by the teacher, either as directions about the task (e.g., if explicit stages were given) or in marking notes (e. g., 'A lovely narrative...'). The level was as given by the teacher or equivalent. Those that weren't specified were left blank with respect to level.

A sample text label is 3NAR2-CainH, which unpacks as:

3	Year 3
NAR	Narrative
2	the second Narrative from that school and year
-	particular school symbol
Cain	child (+male)
H	designated a high level writer.

An Excel spreadsheet was employed to catalogue the texts.

Over the three schools and the four Year levels in each school, it was found that the texts were produced in response to 441 discrete 'tasks'. This count of 'tasks' includes only those texts that were developed into recognisable attempts at some task or other (and excludes such things as notes, sentence only/one-line answers, and any second copy in the form of a draft/published version). For some of these discrete tasks there is only one example, from one student (there are 142 instances of a task having only one response to it); for some discrete tasks, there are as many as fifteen individual

texts (there are 32 instances where there are 10-15 texts written in response to the one task).

The photocopies of the texts were then scanned and securely stored.

3.1.3 Culling the data: Identifying genres in the data

The 441 tasks represented about 2000 individual texts. Each text was examined for genre. The genre analysis was informed by the abundant literature on the subject (Martin & Rothery 1981; Rothery 1985; Painter 1986; Rothery 1991; Martin & Rothery 1993; Christie & Martin 1997; Callaghan & Rothery 1998; Hyland 2002; Johns 2002; Martin & Rose 2008). The genre stages and phases that were identified in each of the consulted authorities were collated in one document and compared for consistency and applicability to the data collected. In the end, the New South Wales Board of Studies (BOS) documents were chosen as containing the canonical criteria, since these were the common support documents for use in NSW schools at the time of the production of the sample texts and, although never explicitly acknowledged, were demonstrably informed by SFL research (Board of Studies NSW 1998, 2006). The list of text-types used as a starting point for the genre analysis appears in Figure 3. 1-1.

Text Types (oral and written)	
Literary texts	Factual texts
Narrative	Factual description
Literary recount	Information report
Observation	Procedure
Literary description	Procedural recount
Personal response	Factual recount
Review	Explanation
	Exposition
	Discussion

Figure 3. 1-1 BOS text-types (*Board of Studies NSW 2006, p. 66*)

This process was necessarily iterative, as did prove to be the other stages of the analysis of the data. The cycle for identifying genres involved several re-visittings. Each text was examined in a ‘first sweep’ for surface genre information, as identified in the text by the teacher, either as directions or in the marking notes. These genre-bundles were then more closely examined to check the accuracy of this first distribution – teacher markings were not always reliable e.g. a task instruction such as *Write a narrative ...* does not ensure a narrative is written, nor can a comment such as *A lovely narrative* be taken as an accurate description of what is written. Thus, in a ‘second sweep’, the initial genre bundles were checked against schematic structures for staging and key linguistic features in the BOS documents. It should be said here that the staging itself was not to be a focus of the thesis (and there is much – perhaps another thesis – that could be usefully examined in terms of the functions of different types of processes and different types of clause relations in realising each element of schematic structure), so the schematic structures actually presented here are indications only. Issues taken into account at this level included, *At what point is a poor or failed genre no longer considered a sample of the genre?* (retained and marked as low). *What about partial genres, e.g. where an important stage of a genre (resolution of a narrative, for example) is practised in isolation?* (retained). *What about texts which seemed to be written for a purpose other than those supported by the major genres? Or seemed to have mixed purposes or be designed to address some irretrievable pedagogical purpose?* (other genre publications consulted (e.g. Martin & Rothery 1981; Butt et al. 2003; Christie 2005; Martin & Rose 2008); or applying a new appropriate label e.g. *homage, excuse*). ‘Best fit’ was the decision for the 19 or so problematic text types. Interesting as this was to pursue (and it could well be the basis for further study), the classifying of these ‘difficult’ texts did not have to be exhaustive or justified at this point, since the study essentially discarded them to concentrate on some major text-types. This was also the reason that fine distinctions were not made between types of recounts and types of descriptions.

Altogether 20 different text types were identified across the years. This information is presented in Figure 3. 1-2.

Discrete tasks						Discrete samples				
Year 3	Year 4	Year 5	Year 6	Total	Genre	Year 3	Year 4	Year 5	Year 6	Total
8	9	13		30	Description	35	30	76		141
4	3	6	3	16	Discussion	7	15	42	11	75
1				1	Excuse	1				1
	2			2	Exemplum		6			6
5	6	9	1	21	Explanation	21	30	64	22	137
5	10	18	6	39	Exposition	15	35	107	41	198
1				1	Homage	1				1
8	13	25	18	64	Information report	20	40	96	109	265
10	11	27	8	56	Narrative	31	41	185	87	344
3	3	1		7	Observation	3	9	10		22
2				2	Period Study	17				17
3	1	5	5	14	Poem	7	1	19	13	40
		1		1	Portrait			1		1
6	5	7	3	21	Procedure	8	13	18	11	50
29	27	36	13	105	Recount	72	121	232	88	513
1	2	6	2	11	Personal response	8	6	32	23	69
10	18	6	3	37	Review	37	43	21	34	135
		2	1	3	Science Experiment			3	2	5
4	4		1	9	Speculation	4	6		3	13
	1			1	Timeline		4			4
100	115	162	64	441	20 Total	287	400	906	444	2037

Figure 3. 1-2 Text types identified in the 2037 collected texts.

From the collection of 2037 texts, spanning 20 genres, the three genres of Narrative, Report and Exposition were extracted. The choice of these three genres was informed by the theoretical framework (previous chapter) in which the need for factual texts has been explained. The distribution of texts of these three genres across the various Year groups and writing levels is set out in Figure 3. 1-3.

Selected Genres	Year	Level	Samples per level	Total samples
Exposition	3	h	10	15
Total: 198		m	5	
	4	l	-	
		h	10	35
		m	23	
	5	l	2	
		h	39	107
		m	50	
	6	l	18	
		h	12	41
		m	26	
		l	3	
Information Report	3	h	13	20
Total: 265		m	7	
		l	-	
	4	h	12	40
		m	25	
		l	3	
	5	h	38	96
		m	44	
		l	14	
	6	h	29	109
		m	68	
		l	12	
Narrative	3	h	19	31
Total: 344		m	12	
		l	-	
	4	h	6	41
		m	28	
		l	7	
	5	h	64	185
		m	88	
		l	33	
	6	h	24	87
		m	53	
		l	10	
			807	807

Figure 3. 1-3 Distribution of 807 texts in the selected genres of narrative, exposition and reports across the four school Years and three writing levels.

It was impractical in the scope of the study to analyse more than 800 texts. Thus the set was further culled to include only those rated by the teachers as ‘well done’, since it was decided to concentrate on examples that would exemplify *possible achievement*. Examinations of and comparisons with writing samples that were more likely to contain writing difficulties from less-able students would certainly be of interest, and could constitute another study. This left the text set displayed in Figure 3. 1-4.

Selected Genres	Year	Level	Samples per level	
Exposition	3	h	10	71
	4	h	10	
	5	h	39	
	6	h	12	
Information Report	3	h	13	92
	4	h	12	
	5	h	38	
	6	h	29	
Narrative	3	h	19	113
	4	h	6	
	5	h	64	
	6	h	24	
			276	

Figure 3. 1-4 Distribution of “high” level texts across the genres of Narrative, Exposition and Report.

Further reduction was necessary to cut the data set down to manageable numbers, given the depth of analysis for each text, and the need was to balance issues of practicality against retaining sufficient representativeness. Consideration was given to balancing out the parameters of school and gender, as well as ensuring as much as possible that the samples were comparable in terms of the amount of perceivable adult input. As far as possible, drafts were chosen. In order to maintain consistency in terms of balance of numbers across schools, and because the samples from one school were far fewer than from the two others, it was decided to allow, where necessary, students to contribute more than one text to the study. The details of the final corpus, including the titles given to the texts and the (encoded) names of the authors, appear in Figure 3. 1-5.

Year 3:

	Expositions		Narratives		Reports	
Jasper	Computer Games				Birthday Party	
Annie			Goldilocks & 3fish		Moloch	
Babs	Dogs		Three Beggars			
Cain			Cat Wars			
Lacy			Cool Games			
Maisie	Pet Dog				Birds	
Mike					Birds	
Josh	Junk Food					

Year 4:

	Expositions		Narratives		Reports	
Joe	Easter				Koalas	
Allen	Homework					
Nobby			Genius Ben		Cicadas	
Nola	Choose Teacher		Mystery Kidnap			
Janet			New Kid		Shield Bug	
Alicia	Choose Teacher					
Ann			Stuck Together			
Ned					Cyclones	

Year 5:

	Expositions		Narratives		Reports	
Maddy	Nuclear Power					
Nathan	Nuclear Power					
Zizi	Smoking					
Sara			Rainforest Quest			
Dane	Save Rainforests					
Seth					Bats	
Cassie			Shipwrecked		Toucans	
Alice			Riding Hood			
Gordy			Values			
Kim					Birds	
Ginny					Cuscus	

Year 6:

	Expositions		Narratives		Reports	
Belle					Emperor Penguins	
Lily			Ank-Mee		Killer Whale	
Kay			Kabul's Story		Penguins	
Travis	Soccer					
Jess	Japan		3 Wishes			
April	India		India			
Jack	We need a PM				Deserts	

Figure 3. 1-5 Titles of texts and encoded names of authors of the final corpus.

The final corpus contained 48 texts. These were distributed evenly over the four school Years ($48 \div 4 = 12$ per Year) and evenly over the three genres ($48 \div 3 = 16$ per genre). For convenience, this distribution is displayed in summary form in Figure 3. 1-6.

	Genre	Texts	Year Total	Total texts
Year 3	Narrative	4 texts	12 texts	Narrative
	Exposition	4 texts		16
	Report	4 texts		Exposition
Year 4	Narrative	4 texts	12 texts	16
	Exposition	4 texts		Reports
	Report	4 texts		16
Year 5	Narrative	4 texts	12 texts	
	Exposition	4 texts		
	Report	4 texts		
Year 6	Exposition	4 texts	12 texts	
	Report	4 texts		
	Exposition	4 texts		

Figure 3. 1-6 Distribution of the final 48 texts over Years and genres

3.1.4 Analysis of the texts

Attention then turned to analysis of individual texts. As explained in the previous chapter, the theoretical framework informing this study is that of Systemic Functional Linguistics (SFL). The particular aspects pertinent to and used in the study are presented in the next section, which explains the Analytical Framework for the study. The main source of information is Halliday and Matthiessen (2004). Also consulted were Martin, Mathiessen and Painter (2010), Eggins (2003) and Butt et al. (2003). When there was conflict, Halliday and Matthiessen (2004) was taken as authoritative.

The method used for analysing texts was quite involved. Each text was transcribed as accurately as possible using Microsoft Word, preserving original spelling and layout

where possible. Copies were then analysed into clauses, and in this form were ready for further analysis.

An EndNote library was created to catalogue the texts and analyses. Fields in Endnote were modified to accommodate the necessary information.

Initially analysis was carried out in collaboration with supervisors and fellow students working on similar projects using SFL. Discussions were held regularly for airing of analysis problems. Once basic analyses were done, only the ‘problematic’ areas were discussed.

3.1.4.1 Use of software and templates

Different software for analysis was trialled and evaluated. One was TAMSanalyzer (Weinstein 2010), a native Open source qualitative research/discourse analysis program. TAMS is an acronym for Text Analysis Markup System, and provides a means for marking and analysing patterns in documents. Another program trialled was UAMCorpusTool (O’Donnell 2007), a powerful set of tools to aid manual and semi-manual annotation of texts. While both these programs had a wide variety of features and great potential, Excel was eventually chosen, largely because of familiarity with the program such that I was confident that it could manage the information I was seeking to deal with. Its advantages included that

- templates could be developed to capture explicit detail of Transitivity/Theme patterns
- a comprehensive picture of patterns could be built up across texts
- it allows counting of instances
- it is flexible and can include coding beyond the clause
- it is expandable.

Analyses of Theme/Rheme and of Transitivity were thus carried out using Microsoft Excel. Templates for analyses of both these dimensions of language had been developed with the research team during the earlier study of Christie and Derewianka (reported in Christie & Derewianka 2008). The Theme/Rheme template was found to

be adequate for this study, though in fact, the Textual analyses of this project are not reported on here.

The template for the analysis of Transitivity was heavily modified over the period of the study, as it was found to be a successful way of mining the data for information. For example, columns were added in the template to enable the coding of types of forms that different elements took. An example is that when a participant in a clause was realised in a particular manifestation of nominal group, such as a qualified noun group, this was noted, and could be done so consistently across all the spreadsheets. Another example is noting the type of clause embedding that occurred in the texts. Many modifications were made across the course of analysing the texts; this necessarily meant a multiply-iterative process that ensured repeated visitation to and refinement of the actual text analysis. The accuracy of each text analysis was thus continually reappraised and problems addressed through reference to discussion with colleagues and to the literature cited above.

The original template made use of the counting function to gather together instances of occurrences of particular features, for example, material processes. The modified templates exploited the capacity of Excel to search data on a spreadsheet and in a workbook in drawing together such instances across age groups and genres, and creating comparison tables.

3.2 Analytical Framework

3.2.1 Overview

As explained earlier, the theoretical framework informing this study is that of Systemic Functional Linguistics (SFL). The data was principally subjected to a fine-grained linguistic analysis using aspects of SFL. SFL provides a multi-faceted, socioculturally-oriented model for the analysis of data. It enables the linking of contextual variables to linguistic choices in a principled and systematic way. The study was concerned with identifying the linguistic choices available and taken up by looking at the structures that students chose to use in the construction of their texts, and then locating where variability lay. Looking at the sorts of structures used across the four Years of schooling and how these varied from Year to Year involved analysing all usage and comparing across Years and genres. Thus a basis is established for identifying development in use, and for identifying unusual or marked use.

As also pointed out in the theoretical framework of the previous chapter, the ideational metafunction is the focus of the study. The other two metafunctions, interpersonal and textual, were not the subject of analysis, but will be referred to on occasion.

An exception was the incidental analysis of aspects of tenor and mode. The **tenor** of the context is realised in the choices students make in construing *interpersonal* meaning (how language functions to express attitude, degrees of probability and commitment, and so on). Some explicit aspects relating to the interpersonal metafunction were easy to collect during the analysis of the verbal group – for example, the use of modal finites and modal adjuncts. These are presented as an aside in the analysis of the verbal group. In general, however, tenor analysis was beyond the scope of this study. Likewise, the perspective of **mode** of communication allows focus on students' developing mastery of *textual* resources (how language

functions to organise the flow of information and to create cohesion). While analysis of Theme and Rheme for each text was carried out, that data is not presented here. As with tenor, mode lies beyond the scope of this study.

Focusing the study further within the ideational metafunction, the analysis was not at the level of discourse. In developing certain fields of knowledge in their writing, students demonstrate their control of particular *experiential* resources (how language functions to represent experience – from the everyday through to the generalised, abstract, technical, and metaphorical) and of *logico-semantic* resources (how semantic sequences are built up in clause complexes). The primary analysis is at the fundamental level of the grammatical resources used to represent those experiences, both simple and complex. Thus, both areas of the ideational metafunction are dealt with: the lexicogrammatical system of transitivity and logico-semantics. It is here it is expected the most clear and significant markers of children's writing development will be located.

In this chapter, some pertinent aspects of the grammar will be presented, followed by a general description to both foreshadow and explain the structure of the following chapters. A very detailed exemplar of how the analysis proceeds will be given at the start of and throughout the next chapter, with Year 3 Narratives. The same analysis then is made for all the other Years and genres.

3.2.2 Some pertinent aspects of the structure of grammar

In examining the way meaning is made in these texts and to aid in being able to describe the grammar across the texts in a consistent manner, it is useful to look at some organisational aspects of language. Importantly, these organisational aspects are mere descriptions of the way language works; they are not rules. For a fuller description of the grammar, refer to Halliday & Matthiessen 2004. Eggins (2003) also presents a very accessible treatment.

Linguistic patterns are discernible in texts, and the intent of this thesis is to elucidate some of the patterns as they occur in different contexts. To do this, it is necessary to

delve into the grammatical structures that realise various kinds of meaning. Firstly we will look at the structures themselves. Once this is done, we can return to describing them in terms of the way they function to create meaning, with particular emphasis on the ideational metafunction.

First, a word about ‘grammar’. ‘Lexicogrammar’ is a term used by Halliday to indicate that vocabulary and grammar are inextricably related, and that it is most useful to regard them as being two ends of a continuum rather than as two separate language components. The lexicogrammar of a language is used to represent the meanings the language produces, through the modes of both the sound system (with which we are not concerned in this thesis) and the writing system (with which we are). ‘Grammar’ and ‘lexicogrammar’ will be used interchangeably henceforth.

The main organisational concept of importance is the notion of constituency. **Constituency** is the idea that something – a unit of something – is made up of some smaller units. Pertinent to the study here are constituency in writing (graphology) and constituency in the lexicogrammar.

3.2.2.1 Constituency

3.2.2.1.1 Constituency in graphology

Constituents in the writing system are the sentence, the sub-sentence, and the word (Halliday & Matthiessen 2004, p. 6), delineated by different elements of punctuation. The school texts under study here are written texts, produced in a schooling system where the primary meaning unit is the sentence. Indeed, the Australian Curriculum has in its Content Descriptions:

Recognise that sentences are key units for expressing ideas (ACELA1435)

English / Foundation Year / Language / Expressing and developing ideas

A sentence, however, is not regarded as a grammatical unit, and so will not be useful to preserve in the analysis of the texts undertaken here. However, because it is a unit that is valued in school writing, and because it is a convenient term for units that children write, it is worth retaining at least to count graphological units, and to use

when convenient as a collective term for the clause or clauses they contain. This usage will be explained more fully below.

3.2.2.1.2 Constituency in the lexicogrammar

Lexicogrammatical **constituency** in English involves four levels (Halliday & Matthiessen 2004, p. 9), where each **rank** is constituted by one or more of the units in the rank just below it. The **rank scale** for English is shown in Figure 3. 2-1.

clause – clause complex
group/phrase
word
morpheme

Figure 3. 2-1 Rank scale for English (*from Halliday & Matthiessen 2004, p. 9*)

At the top of the hierarchy is the unit of the clause/ clause complex. **Clauses** are made up of **groups** (of words) and **phrases**, which are made up of **words**, which are made up of **morphemes**. Our interest resides mainly in the clause and the group/phrase ranks, so we will confine comments and examples to those, with occasional excursions to the word below and to the sentence (as an artificial, borrowed rank “above” the clause, for reasons explained below).

Each **rank** is characterised by a particular structural pattern, which differentiates it from the other ranks. A brief distinction is made here, but will be amplified in the next section.

- From an experiential perspective, a **clause** is made up of groups/phrases that are related because they represent processes (typically realised by verbal groups) and associated participants (typically realised by nominal groups) in time and space (typically realised by prepositional phrases and adverbial groups). All these types of groups will be explained in further detail later.
- At the next rank down are **groups** and **phrases**. Halliday and Matthiessen (2004, p. 371) note the distinction between group and phrase. “Although group and phrase are both of intermediate rank as constituents, they have arrived there from different ends: a group is a bloated word whereas a

phrase is a shrunken clause.” A group is made up of words that are related through structures of **modification** and **expansion** of one main or Head word. A phrase consists of at least two components – a nominal group and the preposition on which it depends. Our main interest is in the noun group, though other groups will also be examined from different angles.

Units at each of the ranks can be involved in **complexing**. Thus we can have **clause complexes** and **group/phrase complexes** and **word complexes**. The same grammatical resources are responsible for complexing at each level, namely **taxis** and **logical-semantic** relations. Taxis and logical-semantic relations will be explained further below. These are carried at the linking ‘joint’ between the units, known as the **nexus**. Complexing in my data will usually be identified when it happens. The notational convention for indicating clause complexes is double slashes between clauses //. See section 3.2.3 below for greater detail.

An important characteristic of this rank scale is that sometimes a unit of one rank may be deployed to do work on a lower level. This is known as **rank-shift**. Of particular interest to this study is rank-shift of the clause because it indicates that the writer is using the resources in a non-congruent way. It is pertinent here to mention grammatical metaphor as one generally recognised measure of writing sophistication. It is associated with the densely packed discourses of science, bureaucracy and the law, and its mastery is important for the successful high school/tertiary student. It involves the notion of ‘congruence’, where congruence refers to the literal, the normal, the regular. When meaning is conveyed in non-congruent, unexpected forms, it indicates that the writer has got fine control of the grammatical resources. A full explanation is easy to find – see Halliday and Mattiessen (2004, chapter 10) or Christie and Derewianka (2008, pp. 24-27). What is relevant to this study is that early forms start to appear in later childhood (Derewianka, 2003). One of the recognised forerunners of grammatical metaphor is a grammatical structure – the use of down-ranked clauses. A clause doing duty in this way will be denoted as an ‘**embedded**’ or ‘**non-ranking**’ clause. The notational convention for embedded clauses is double square brackets [[]].

Another feature is that sometimes one unit is **enclosed** within another, not to subsume or be subsumed, but merely to **interrupt** it so that it is split into two parts; even though the interrupted clause is in two parts, it is still the one unit. Again, the clause is the unit of interest here: instances of a clause being an interruption will be identified in the texts under study. The notational convention for an interrupting clause is double angled brackets << >>.

Two other terms need further explanation. As indicated above, I am choosing to use the term **sentence**, because I am looking to find areas of comparison between cohorts of texts, and this unit of writing is conveniently pre-packaged in all the texts. In order to record the complexity that is apparent within the sentence as regards the grouping and sequencing of ideas, I distinguish between those sentences that are composed of one clause and those that are composed of more than one clause. It is in this context that the terminology of **clause simplex** is employed – to distinguish the choice of the writer to use one clause rather than many. Many clauses in sequence are termed a **clause complex**.

3.2.2.2 Classes and functions

Clauses are made up of groups which are made up of words. We can talk about the ranked units themselves, but to describe their form and function requires different sets of labels. The analysis in the study starts at the clause level with a functional analysis in relation to the ideational metafunction, then looks at the form taken by the functional parts. In most cases we are talking about the same thing – but from two different perspectives (Eggins, 2003 p. 138). In the case of saying something about the form we are paying no attention to the surrounding context, and so the labels will be meaningful whatever the context. These are labels such as ‘finite clause’, ‘prepositional phrase’, ‘noun group’, ‘verb’, ‘article’, and ‘adjective’. When we talk about the function something is serving, the labels reflect the context in which that something functions in a particular situation, either by a direct description of the function e.g. ‘process’, ‘participant’, ‘classifier’, or by incorporating its function into a formal description e.g. ‘qualifying clause’, ‘projecting clause’, ‘post-modifying phrase’. Labels will often have levels of delicacy of description e.g. mental process,

circumstance of manner, sayer. Examples of the labels that this study will use are shown in Figure 3. 2-2.

Rank	Form/Class labels	Function labels
clause	finite clause, non-finite clause, relative clause	mental clause; material clause; projecting clause
group	nominal group, noun group, adjectival group, adverbial group, verbal group, prepositional phrase	mental process, actor, sayer, circumstance of manner
word	article, noun, adjective, preposition, conjunction	deictic, describer/epithet, classifier, thing, modifier, Head, linker, binder

Figure 3. 2-2 Labelling of forms and functions.

3.2.3 The logico-semantic element – taxis and logical relations

While we are still thinking about structure, let us turn to the first of the two main grammatical resources investigated in this thesis, logico-semantic relations. To do this it is helpful to see that meaning in language organises itself horizontally according to two distinct structures. One is iterative, where the same functional relationship is repeated over and over (the ‘univariate’ structure). The second is segmental, where different functional relationships are formed between the elements (the ‘multivariate’ structure). Both structures are relevant to ideational meaning, and are sometimes overlaid.

3.2.3.1 Taxis – parataxis and hypotaxis

Taxis is an example of an iterative, univariate structure, and each successive use of taxis expresses the degree of interdependency between the two elements involved. The two degrees of interdependency are recognised as **parataxis** and **hypotaxis**. Paratactic clauses are clauses of equal status, for example:

We can't eat too much *or* we will have too much fat on us. (18. Josh 3E)²

² Note: examples used in this section are taken from the texts in the study. The notation used to refer to them has been explained above, but in brief is: text number, name, year, genre e.g. (28. Zizi 5E)

Hypotactic clauses are clauses of unequal status, where one clause is independent or main or dominant, and the other is dependent or subordinate, as in:

When you are away on a holiday, dogs will protect you're[sic] house (19. Maisie 3E)

Interdependency is introduced between clauses usually using a conjunction. Typical conjunctions of each type are given in Figure 3. 2-3.

Parataxis – equal dependency	Hypotaxis – unequal dependency
and but, yet, but not, so, for or, neither ... nor	besides, apart from while, whereas because, since, so that, as, as a result except for, instead of, rather than after, when, just as, while, until, whenever, every time if, as long as, whether through, as if, like, as

Figure 3. 2-3 Taxis in conjunctions (*collated from Halliday & Matthiessen 2004, pp. 405-422*)

Other interdependent relations might not involve the use of conjunctions. Dependency might involve, for example, non-finite clauses:

He went to his house // using the sea route (1. Annie 3N)

their friends may persway[sic] them // to pick a different teacher (24. Nola 4E)

or non-defining relative clauses:

They usually bury the waste a few kilometers underground // which may harm our warter[sic] and wildlife. (27. Nathan 5E)

It can be seen that the linkage point between any two consecutive clauses in a clause complex can be marked in different ways. Structurally, the linkage point is called a clause **nexus**. A clause simplex contains no clause nexuses. A clause complex comprising *two* clauses will have *one* clause nexus, between the clauses. More generally, for a clause complex comprising *N* clauses, there will be *N-1* clause nexuses.

3.2.3.2 Logico relations – expansion and projection

The nexus does not carry just dependency relations. It also carries the semantically logical relations, which can be of two sorts – **expansion** and **projection**. (For a full explanation of these relations, see Halliday & Matthiessen 2004, chapter 7.) Expansion involves the meaning of one clause being expanded on by the other, (i) by restating or exemplifying it (or **elaboration**), (ii) by adding a new or alternative element to it (or **extension**), or (iii) by embellishing in some circumstantial³ way (or **enhancement**). Examples are:

- (i) They are hatched from eggs, // which are guarded by the mother. (43. Kim 5R) elaboration
- (ii) The male killer whale is known as a bull // and averages around 5.8-6.7 metres (48. Lily 6R) extension
- (iii) They have a long stiky[sic] tounge[sic] // to lick up ants (33. Annie 3R) enhancement

Projection is when one clause is projected through another as in direct or indirect (i) speech (or **locution**) and (ii) thought (or **idea**). Examples are:

- (i) some people say // that they are becoming extinct. (41. Cassie 5R) locution
- (ii) We all know // that birds don't just pop out of no where. (43. Kim 5R) idea

The study considers the logico-semantic relations between clauses, and with respect to complexing in the verbal group, which is discussed below (3.2.4.2).

Having looked at how clauses are joined to become clause complexes, we can now turn to concentrate on the clause itself. We are now in a position to proceed to look at transitivity, the second area belonging to the ideational metafunction.

³ 'Circumstance' is explained below.

3.2.4 The experiential element – realised through transitivity

The idea of experience consisting of a flow of events helps in understanding that representations of experience can be broken down into discrete happenings, sorted out into clause-sized portions. (The clause is discussed in Section 3.2.2.1). Halliday uses the expression “a figure of happening” to describe the way a clause organises experience, “imposing order on the endless variation and flow of events” (Halliday & Matthiessen 2004, p. 170).

The transitivity system describes the essence of the happening, the centre of each event, construing “the world of experience into a manageable set of Process types” (Halliday & Matthiessen 2004, p. 170) of happening in terms of doing, sensing, being, behaving, saying and existing. The *Processes* are supported in the clause by an inherent configuration of *Participant* roles and by the extra optional information supplied through *Circumstances*.

Total experience of the world can thus be captured by looking at

- the different types of **processes** that are involved
- the **participants** in those processes
- any **circumstances** attendant on the processes

We now consider each in turn.

3.2.4.1 Processes – function

There are 6 types of processes identified in SFL to represent the different sorts of activities that mark out our experience. The three **principal Processes** – 'material', 'mental' and 'relational' – are “the cornerstone of the grammar in its guise as a theory of experience, present three distinct kinds of structural configuration, and they account for the majority of all clauses in a text” (Halliday & Matthiessen 2004, p. 248). The three **subsidiary Processes** – 'behavioural', 'verbal' and 'existential' – operate at the boundaries of the principal types. Together they represent a cyclic continuum of experience which may be described as: material, behavioural, mental, verbal, relational, existential, (material...). Each is now explained and exemplified using texts from this study.

3.2.4.1.1 Material

Material processes involve material ways of doing and acting, based in the material world. An example is:

Rainforests *produce* oxygen (25. Dane 5E) material

3.2.4.1.2 Mental

Mental processes involve the mental processes of sensing, to do with our consciousness, and can be sub-divided into four types of sensing: **cognition**, **desideration**, **emotion**, **perception**. Respective examples are:

People *think* baby cicadas (nymphs) are baby lobsters (40. Nobby 4R) mental: cognition

Killer Whales usually *prefer* cold water (48. Lily 6R) mental: desideration

When a male and a female cicada *like* each other ... (40. Nobby 4R) mental: emotion

(Molochs) *hear* sound better from the ground (Annie 3R) mental: perception

3.2.4.1.3 Relational

Relational processes involve being. They are the most complicated of the processes because they encompass two different types of ‘beingness’ – that which relates an entity to its own identity (**identification**), and that which characterises an entity by its relation to a class of things (**attribution**). An example of the first type is

Australia *is* the only country [[that has gumtrees in it]]. (38. Joe 4R) identification

An example of the second type is

They *are* brightly coloured. (37. Janet 4R) attribution

Both identifying and attributing processes can represent an identity or description solely, or they can encode a circumstantial element, or they can encode a possessive element. The two examples just given are examples of **intensive** processes:

Australia *is* the only country [[that has gumtrees in it]]. (38. Joe 4R) identification
intensive

They *are* brightly coloured. (37. Janet 4R) attribution intensive

Examples of the **relational processes that encode circumstances** are:

They (deserts) *cover* North Africa and Saudi Arabia. (46. Jack 6R) identification
circumstantial

Cyclones usually[*sic*] last for 2-3 days (39. Ned 4R) attribution circumstantial

Examples of the **relational processes that encode possession** are:

It is made up of keratin. (41. Cassie) identification possession

It has Infrared[*sic*] sensors on its nose. (44. Seth 5R) attribution possession

The circumstantial and possessive elements can be encoded in the process (as in the above examples) or, becoming even more complicated, they can be encoded in the entity or participant. In these cases the *processes* are *intensive*, and the entity or participant holds the added element of circumstance or possession. Illustrative examples are:

Emus are from Africa. (36. Mike 3R) attributive intensive with circumstantial element in participant

(the emu is Mike's. (no example in data set)) identification intensive with possessive element in participant

3.2.4.1.4 Behavioural

Behavioural processes involve (typically human) processes of physiological and psychological behaviour like coughing and smiling (Halliday & Matthiessen 2004, p. 248). An example is

Kabul *woke up* in a small bed (16. Kay 6N) behavioural

3.2.4.1.5 Verbal

Verbal processes are those representing 'saying', including symbolic uses.

An example is:

Children *promise* parents that they will stop. (17. Jasper 3E) verbal

3.2.4.1.6 Existential

Existential processes summon phenomena or entities into existence.

An example is:

There are many other consequences from smoking. (28. Zizi 5E) existential

3.2.4.2 Processes – form: Verbal groups

A Process is realised by a verbal group, which can be a single word of the class of 'verb':

We ate beautiful curries (13. April 6N)

or a group of words. The content meaning is typically carried in the final (and lexical) element of the verb group (also called the Event), as in

They have been carved in the trees (41. Cassie 5R)

Other features appear in verbal groups that are easily identified and enumerated, but are not strictly part of transitivity. This study counts, for example, the number of phrasal verbs (where the verb consists of a verb plus a subsequent preposition or adverb or both) that are used in each year and genre, as well as notes the use of modal finites and the inclusion of modal adjuncts. Examples of these are, respectively

Phrasal verb: Your veins block up (28. Zizi 5E)

Modal finite: The other classes might have twenty eight. (21. Alicia 4E)

Modal adjunct: it only raised about 32 million since 1985 (46. Jack 6R)

Verbal groups can appear as group complexes, and this form is a feature that is examined in the study. The mechanisms for complexing the verbal group are explained in the logico-semantic section above (3.2.3). To recapitulate, each nexus carries taxis (**parataxis** or **hypotaxis**) and logico-semantic relations (**expansion** or **projection**) (See Appendix B (10. 2) for guidelines for analysis). Examples in the verbal group are:

1. taxis plus expansion ((i) elaboration, (ii) extension, (iii) enhancement):

- (i) (para) (got killed, got run over ; no example in study)) **elaboration**
- (i) (hypo) Lee Tong **started to pack up** her kimonos. (14 Jess 6N) **elaboration**
- (ii) (para) Bubbles **just wait, wait and wait.** (4. Lacy 3N) **extension**
- (ii) (hypo) Unfortunately I **have to leave** soon (13 April 6N) **extension**
- (iii) (para) (tried, but failed (no example in study)) **enhancement**
- (iii) (hypo) and **left it to rest.** (15. Lily 6N) **enhancement**

2. taxis plus projection ((i) locution, (ii) idea)

- (i) (para) (no paratactic projection in the verbal group)
- (i) (hypo) They **are meant to be** very light. (41. Cassie 5R) **locution claim**
- (ii) (para) (no paratactic projection in the verbal group)

- (ii) (hypo) you might **want to shut** your eyes (16. Kay 6N) idea

3.2.4.3 Participants – function

Participants are inherently associated with each Process type. These functional entities make clear their relationship with the Process and are collected together in Figure 3. 2-4.

Process type	Category meaning	Participants	
		directly involved	obliquely involved
material	'doing'	Actor, Goal	Recipient, Client; Range; Initiator; Attribute (resultative and depictive)
mental cognition desideration emotion perception	'sensing' 'thinking' 'wanting' 'feeling' 'seeing'	Senser, Phenomenon	Inducer
relational attribution identification	'being' 'attributing' 'identifying'	Carrier, Attribute Token, Value	Attributor, Beneficiary Assigner
behavioural	'behaving'	Behaver	Behaviour, Phenomenon
verbal	'saying'	Sayer, Receiver	Verbiage, Target
existential	'existing'	Existent	

Figure 3. 2-4 Process types and inherent Participants (*adapted from Halliday & Matthiessen 2004, p. 260*)

3.2.4.4 Participants – form: Nominal groups

Participants are typically realised by nominal groups. A **nominal group** is a group of nominal words – nouns (proper nouns, common nouns and pronouns), adjectives, numerals and determiners. It is noted here that these words are all **nominal words**. 'Noun' is a subclass of nominals, as is 'adjective' (Halliday & Matthiessen 2004, p. 320). Adjectival groups are therefore considered a type of nominal group.

Nominal groups are examined quite closely in this study, so will be described in some detail here. The nominal group is the expansion of the word, and can be viewed in two complementary ways shown in Figure 3. 1-6. The first perspective foregrounds the **structure** of the nominal group (which is univariate in that it potentially applies to all noun groups) This perspective involves a nucleus noun – **the**

Head – either free-standing or modified in some way. The modification can be before or after the Head, as in Figure 3. 2-5.

Univariate structure	Pre-modifier	Head	Post-modifier	
Examples	that particular	class		24. Nola 4E
	the possum[sic]	family		42. Ginny 5R
	the busiest two	country[sic]	in Asia	14. Jess 6N
	fantastic and brilliant marine	animals		48. Lily 6R
	his best	friend	at the orphanage	47. Kay 6N
	a large	gash	[[that was bleeding badly]]	47. Kay 6N

Figure 3. 2-5 Univariate structure of the nominal group

The second foregrounds the **function** of the elements of the nominal group (which is multivariate in that the each structural component can have multiple functions). This perspective allows us to consider each element through an experiential lens, and name each one according to its function. The pre-modifier elements are particularly specific, as can be seen from Figure 3. 2-6.

Function – univariate structure	Pre-modifier					Head	Post-modifier
Function – multivariate structure	Deictic	Post-deictic	Numerative	Epithet	Classifier	Thing	Qualifier
Examples	that	particular				class	
	the				possum [sic]	family	
	the		two	busiest		country[sic]	in Asia
				fantastic and brilliant	marine	animals	
	his			best		friend	at the orphanage
	a			large		gash	[[that was bleeding badly]]
	<i>which one?</i>	<i>which particular one?</i>	<i>how many?</i>	<i>like what?</i>	<i>what type?</i>	<i>what are we talking about?</i>	<i>anything else?</i>
Typical class	determiner	adjective	number expression	adjective verb form	adjective noun verb form	noun	clause, phrase

Figure 3. 2-6 Uni- and multivariate structure of the nominal group

The class typically realising the various functions are in the final row; it should be noted that the function of Qualifier is filled by an *embedded* element - a finite or non-finite clause or a prepositional phrase, downranked to be part of the structure of the

nominal group. These phrases and clauses have all the meaning potential of any clause or phrase.

3.2.4.4.1 Nominal group – Head and Thing

Separating the univariate structure from the multivariate allows us to account for nominal groups where the Head and the **Thing** are not the same. This happens in the following situations:

- (i) The nominal group is incomplete – the Thing is ellipsed. The Head is another element in the nominal group. It could be

the deictic

e.g. *this* in *this is his story*. (16. Kay 6N)

a post-deictic

e.g. *other* in *...I am excited in one way but sad in the other*. (13 April 6N)

a numerative

e.g. *3* in *...but you must use all 3 by 12:00 today* (14 Jess 6N)

an epithet

e.g. *nocturnal* in *The Toucan is not nocturnal* (41. Cassie 5R)

a classifier

e.g. *the Emperor* in *...the Emperor has a different stratige* (47 Kay 6R) (i.e. the Emperor Penguin)

The numerative and the deictic are the most common. Epithets are not as common, except where they serve as Attributes, as in the example given.

- (ii) The nominal group is complete – but the Head is dissociated from the Thing.

This is a full nominal group where the Head noun does not in fact “represent a thing in its own right, but rather an elaboration or extension of another thing” (Martin, Mathiessen & Painter 2010, p. 169), as in *the flock of colourful toucans*. These can be regarded as extended numeratives, because they usually appear as cognate to a ‘counted’ mass noun (Halliday & Matthiessen 2004, p. 333). Univariately speaking,

‘flock’ is the Head, with ‘of colourful toucans’ a qualifier. Multivariately, experientially, the Thing being referred to is ‘toucans’; see Figure 3. 2-7.

example	the	flock	of	colourful	toucans
multivariate				Epithet	Thing
univariate	β (pre-modifier)	Head	β (post-modifier)		

Figure 3. 2-7 Structure of nominal group with extended numerative (focus)

Martin, Mathiessen and Painter (2010, p. 170) posit the use of the multivariate function of ‘Focus’ to identify these structures. This study adopts this terminology and analyses for the use of the Focus types presented in Martin, Mathiessen and Painter (2010), (Figure 3. 2-8).

Abbrev	Focus subtype	Examples Head (... of)	
pers	perspective	side, top; peak; start; picture	at the end of its abdomen
re-c	re-counting	cup, glass; litre, set; flock	a group of Killer Whales
part	partitive	bit; component; arm, chapter	the lowland of New Guinea
sel	selecting	five; some; bigger; first; next; all	all my heart and soul
dimen	dimensional	size, height, feel	the surface of the water
eval	evaluative	fool; genius	
class	classifying	kind, type, class, species	other species of bats; a part of the possum family

Figure 3. 2-8 Types and sub-types of focus

3.2.4.4.2 Nominal group – clause as Head

Sometimes a clause functions as the entire Head of a nominal group – that is to say it is embedded and is functioning as an entire nominal group (Halliday & Matthiessen 2004, p. 155). Examples are shown in Figure 3. 2-9. This is a form of nominalisation, recognised as a forerunner of grammatical metaphor and expected to increase as children mature (Christie & Derewianka 2008), and thus noted in the study.

3.2.4.4.3 Nominal group – embedding

In looking at the structure of the nominal group we have encountered both situations in which we find embedded clauses. ‘Embedding’ is “the ‘rank-shift’ by which a

clause or phrase comes to function within the structure of a group” (Halliday & Matthiessen 2004, p. 426).

<i>Function</i>	<i>Class</i>	<i>Nominal group with noun as Head</i>	<i>Nominal group with adjective as Head</i>
Post-modifier	clause: finite	someone [[you hardly know]]	less [[than they could have]]
	clause: non-finite	a chance [[to have fun]]	good [[to play with]]
Head	clause: finite	And that is [[why the sea is salty]]	
	clause: non-finite	[[Crawling on her]] were venomous spiders.	

Figure 3. 2-9 Embedded clauses and nominal groups

3.2.4.5 Circumstances – function

Circumstances are the third element in the transitivity scheme. As indicated by the name, they represent the circumstances attendant upon the Process. Halliday has identified 22 different Circumstances, spread across 9 types. A full account of their general characteristics is given in Halliday & Matthiessen (2004, pp. 259-279). This includes a discussion of type according to the logico-semantic relations involved; whether the meanings are expressed through expansion or projection. Most types are expanding the meaning of the process: enhancing circumstances include those of extent, location, manner, cause, contingency; extending are of accompaniment; elaborating are of role. Projection is involved in formulating circumstances associated with Processes of ‘saying’ and ‘thinking’ – they are of matter and angle. While not directly an interest of the study, it is interesting to keep noting how the grammar consistently uses the same resources to create meaning. The types and sub-types of Circumstances are displayed in Figure 3. 2-10.

	Type		Wh-item	Examples of realisation
enhancing	1 Extent	distance	how far?	for; throughout ‘measured’; nominal group
		duration	how long?	for; throughout ‘measured’; nominal group
		frequency	how many times?	‘measured’ nominal group
	2 Location	place	where? [there, here]	at, in, on, by, near; to, towards, into, onto, (away) from, out of, off; behind, in front of, above, below, under, alongside . . . adverb of place: abroad, overseas, home, upstairs, downstairs, inside, outside; out, up, down, behind; left, right, straight . . . ; there, here
		time	when? [then, now]	at, in, on; to, until, till, towards, into, from, since,

				during, before, after adverb of time: today, yesterday, tomorrow; now, then
	3 Manner	means	how? [thus]	by, through, with, by means of, out of)+ material), from
		quality	how? [thus]	in + a + quality (e.g. dignified) + manner/way, with + abstraction (e.g. dignity); according to adverbs in -ly, -wise; fast, well; together, jointly, separately, respectively
		comparison	how? what like?	like, unlike; in + the manner of . . . adverbs of comparison differently
		degree	how much?	to + a high/low/ . . . degree/extent; adverbs of degree much, greatly, considerably, deeply [often collocationally linked to lexical verb, e.g. love + deeply, understand + completely]
	4 Cause	reason	why?	because of, as a result of, thanks to, due to, for want of, for, of, out of, through
		purpose	why? what for?	for, for the purpose of, for the sake of, in the hope of
		behalf	who for?	for, for the sake of, in favour of, against ['not in favour of'], on behalf of
	5 Contingency	condition	why?	in case of, in the event of
		default		in default of, in the absence of, short of, without ['if it had not been for']
		concession		despite, in spite of
extending	6 Accompaniment	comitative	who/what with?	with; without
		additive	and who/what else?	as well as, besides; instead of
elaborating	7 Role	guise	what as?	as, by way of, in the role/shape/guise/form of
		product	what into?	into
projection	8 Matter		what about?	about, concerning, on, of, with reference to, in
	9 Angle	source	who by?	according to, in the words of
		viewpoint	who says?	to, in the view/opinion of, from the standpoint of

Figure 3. 2-10 Circumstances (from Halliday & Matthiessen 2004, p. 262)

Circumstances are generally realised by **prepositional phrases** and **adverbial groups**.

3.2.4.6 Circumstances – forms

3.2.4.6.1 Prepositional phrases

The origin of the prepositional phrase as a “shrunk clause” is outlined in Martin, Matthiessen and Painter 2010 (p. 183). Here we are concerned with its form. As a phrase or shrunk clause, it is organised only multivariately, with different functions (in the experiential realm, minor process and minor range) playing unique roles in the whole unit. The structure is as follows (Figure 3. 2-11):

Example	out to on about to for with	Mullet Creek the roof of every house in Dapto the kidnapper [[where to[sic] toucans were]] no reason Jara and lfe
Function	Minor process	Minor range
Class	prepositional group (single or complex)	nominal group (single or complex)

Figure 3. 2-11 Structure of the prepositional phrase (*Martin et al, 2010, p. 183*)

It will be noted that the full resources of the nominal group are available in forming prepositional phrases. The nominal groups involved in prepositional phrases are explored in the study, but the prepositions are not.

3.2.4.6.1.1 Prepositional groups

For completeness I mention prepositional groups (e.g. *in, from; out of, up to*). These are much simpler in form than nominal groups (Martin, Mathiessen & Painter 2010, p. 182). They have little potential for expansion beyond the forming of group complexes as already exemplified (Figure 3. 2-11). Prepositional groups are not dealt with in this thesis.

3.2.4.6.2 Adverbial groups

Adverbial groups (e.g. *strongly; more strongly*) also are much simpler in form than nominal groups (Martin, Mathiessen & Painter 2010, p. 182). Because the pre-modifying function is not realised by lexical items, there is not the capacity here for expansion as in the nominal group. However, the post-modifier can be the environment for embedding (e.g. *sooner [[than we expected]]*; (example from Halliday & Matthiessen 2004, p. 427)) but there are no instances of this in the study (itself, perhaps, a significant finding). Adverbial groups can form group complexes (e.g. *faster and faster*).

We now turn to describe the presentation of the data in the following three chapters.

3.2.5 Presentation of the findings

3.2.5.1 The dimension of genre

In successfully writing an appropriate genre, students demonstrate their ability to encode the social purpose of the text in institutionally valued ways. Analysis of generic structure maps stages of the text onto the Transitivity analyses, thus allowing a rich view of how chosen grammatical and lexical details are distributed across the whole text. While each text is analysed in the same way in the next chapter, in the following chapter the results are critically examined across the genres to draw comparisons and contrasts.

3.2.5.2 Textual analysis

Data from the texts are presented from the ‘bottom up’, beginning with word counts. Such structural features are not the main focus of the study, but provide preliminary information. This account of the data analysis proceeds as set out below, giving preliminary structural information first. The later phases of the analysis involve using systems of descriptions of the lexicogrammar to analyse the writing, so that at the last a full-bodied systematic ideational account is provided for each text.

3.2.5.2.1 Sentences and words

As a preliminary analysis, the number of **sentences** and **words** in each text are counted. These will be presented. The number of **lexical items** in each text is counted. From this, and the total number of words, the number of **grammatical items** may be immediately deduced, but this calculation is not shown as not of interest in this study.

3.2.5.2.2 Clauses, groups and phrases

The number of **clauses** is counted and presented for each text. The **lexical density** expresses the ratio of lexical items to clauses; i.e. the average number of lexical items per clause. Lexical density is calculated and presented. Whereas lexical density considers the number of lexical items per clause, **mean clause length** expresses the

number of words per clause, in other words, the ratio of words to clauses. Mean clause length is computed and shown for each text.

3.2.5.2.3 Clause complexing and logico semantics

Our main interest is with the clause (**clause** or **clause simplex**), the basic unit of meaning, and how clauses are joined (into **clause complexes**). The numbers of clause simplexes and clause complexes is given for each text. Just as there are clause complexes, there are also **group complexes** and **word complexes**; however, these have not been explicitly counted here.

The total number of nexuses between clauses in clause complexes is given for each text. The nexuses are identified as paratactic or hypotactic. For each text, for each sentence length measured in clauses, the number of sentences that contain paratactic relations, hypotactic relations and relations of both types are enumerated. The total number of paratactic and total number of hypotactic relations for all texts of the same Year and genre are also calculated, and the fraction that each is of the whole is calculated.

The explicit logic-semantic relations between clauses are tallied and presented. Appendix A (10. 1) contains a guide used for analysing clause complexing.

3.2.5.2.4 Embedding of clauses

For each Year group and genre, the number of ranking clauses is counted for each sentence length (sentence length measured in clauses).

The same is done for embedded clauses. As mentioned, the embedding of clauses indicates that there is some movement between the grammatical ranks; the writer is manipulating the resources, and this is an indication of development.

Embedding can be either simplex or complex. Of course, a clause need not contain embedding. The three possibilities, thus, are that a clause has no embedding, simplex embedding, or complex embedding. For each Year group and genre, the number of

ranking clauses that contain embedding and the number that do not, are counted for each sentence length (sentence length measured in clauses). The fraction of clauses that do and do not contain embedding is also given.

We now examine the embedding itself. Embedding can occur in two environments. The first is as a **qualifier in a nominal group**, denoted **Q**. The second is as a **whole nominal group**, denoted **clH** (where the whole *clause* functions as the *Head* of the nominal group). While there are only two types of embedded clauses, any clause can contain one or the other or both types. Both types of embedding are counted and presented for each Year/genre group

The Q embedding, in principle, can be of many different forms. In the texts under study here, 6 distinct forms have been identified. They are denoted using the symbols set out previously. Likewise, the clH embedding can take many forms. In the texts analysed here, a total of 8 forms have been found. These also are denoted using the symbols defined previously.

Notations for noting embedded clauses (reflecting instances in the data) are set out in Figure 3. 2-12:

Notation	Explanation	Example
[[]]	one simplex embedding in a clause	they have a pouch [[to put their babies in]]. (38. Joe 4R)
[[]]c	multiple simplex embeddings in a clause	... the only way [[to be split]] was [[to become friends]]. (5. Anne 4N)
[[]]el	multiple simplex embeddings in one functional element/group complex)	They have wings [[to fly with]], claws [[to kill their food]] and a beak [[to eat]]. (35. Maisie 3R)
[[e]]	one simplex clause is embedded in a simplex	Some other interesting facts about this amazing creature are, [[that they are the only animals in Antarctica [[that breed in winter]]]]. (45. Belle 6R)
e[[]]Q	form of [[e]]: the clause embedded in the simplex is a simplex (and a Qualifier (no clH occurrences))	– the only animals... [[that breed in winter]] – (45. Belle 6R)
[[<<>>]]	an embedded simplex contains an interrupting or enclosed clause	My first reason is [[that << if there was to be an explosion >> it would be fatal to many people]]. (26. Maddy 5E)
incl	the enclosed clause	<< if there was to be an explosion >>(26. Maddy 5E)

Figure 3. 2-12 Notations for noting embedded clauses

3.2.5.2.5 Transitivity – Processes

For each Year group and genre, the clauses are identified according to Process types. The ranking clauses, embedded clauses, and all clauses are tallied separately, and percentages given. Subtotals are given for the principal and subsidiary clause types and a count of the different Process types used is presented. Across the clause types, the frequency of use of the different types of Processes is then given, both in absolute and relative (percentage) terms.

Attention is then given to features of the form of processes. Of most interest is complexity in the verb group. Verbal group simplexes and verbal group complexes are tallied across ranking and embedded clauses. The other features tallied are phrasal verbs, modal finites and modal adjuncts.

3.2.5.2.6 Logico-semantics – verb complexing

Within each Year /genre group, the occurrences of parataxis and hypotaxis in the verbal group, subdivided into expansion elaboration, extension and enhancement, and projection, as well as multiple complexing, are tallied for ranking and embedded clauses. Samples taken from the texts are given to illustrate each different arrangement. (It should be noted that tense *have*, tense *be* and modal *have to* are treated as part of a simple verbal group (Martin et al, 2010, p. 195)). Appendix B (10. 2), as we have seen, contains a guide used for analysing verbal group complexity.

3.2.5.2.7 Transitivity – Participants

For each Year group and genre, the clauses are identified according to Participant roles. The ranking clauses, embedded clauses, and all clauses are tallied separately, and percentages given. A count of the different Participant roles is also given.

The forms through which Participants are realised – nominal group (subdivided into noun group, adjectival group, clause), prepositional phrase and adverbial group – are counted for both ranking and embedded clauses.

These are further categorised as involving one group or two+groups (group complexes), then again categorised as consisting of Head only, or using some form of pre-modification or post-modification. Summaries are made across ranking clauses and embedded clauses. Finally, instances are listed, obtained from the texts.

3.2.5.2.8 Transitivity – Circumstances

For each Year group and genre, the clauses are classified according to Circumstance types. The ranking clauses, embedded clauses, and all clauses are tallied separately, and fractions given. The total of the different types of circumstances used is also given.

The forms taken by the Circumstances – prepositional phrase noun group, adjectival group – are counted for both ranking and embedded clauses.

These are further categorised as involving one group or group complexes, then again as consisting of head only, using pre-modification or post-modification. Summaries are made across ranking clauses and embedded clauses. Finally, instances are listed, obtained from the texts. Examples are given, extracted from the texts.

3.2.5.2.9 Transitivity – the special case of the Nominal Group

Synthetically, bringing together the Participants and Circumstances, the data for the nominal groups used in both is collated, and examples given of the variants. The case of Head=Thing is given particular attention. Finally, the occurrences of up to 25 configurations of pre-modification of the nominal group are counted, and examples given from the text corpus.

3.2.6 Summary of symbols

Figure 3. 2-13 collates the symbols that are used in analysis. Some explanations are repeated closer to use where that seems helpful.

Notation described	Notation shorthand	Explanation	example
double slash	//	clause boundary / nexus point	To check if they are poisoned // they eat them. (38. Joe 4R)
downward right arrow	↘	realisation	
single square brackets	[]	embedded phrases	children should not pick their teacher [for next year] (21. Alicia 4E)
double angled brackets	<< >>	enclosed or interrupting clauses	Secondly,<<if children choose their own teachers>> they may choose the same teacher (23. Joe 4E)
caret	^	sequence	
	Q	qualifier in a group	
	clH	clause as Head, or clause as Whole nominal group,	
double square brackets	[[]], [[]]	embedded clause used close together in tables, for indicating one simplex embedding in a clause	This is just a way [[to celebrate]] (34. Jasper 3R)
	[[]]c	multiple simplex embeddings in a clause	... the only way [[to be split]] was [[to become friends]]. (5. Anne 4N)
	[[]]el	multiple simplex embeddings in one functional element/group complex)	They have wings [[to fly with]], claws [[to kill their food]] and a beak [[to eat]]. (35. Maisie 3R)
	[[e]]	one simplex clause is embedded in a simplex	Some other interesting facts about this amazing creature are, [[that they are the only animals in Antarctica [[that breed in winter]]]]. (45. Belle 6R)
	e[[]]Q	form of [[e]]: the clause embedded in the simplex is a simplex (and a Qualifier (no clH occurrences))	– the only animals... [[that breed in winter]] (45. Belle 6R)
	[[<<>>]]	an embedded simplex contains an interrupting or enclosed clause	My first reason is [[that << if there was to be an explosion >> it would be fatal to many people]]. (26. Maddy 5E)
Final Q	[[]]Q or [[//]]Q etc	embedded clause or clause complex is qualifier	he was surprised [[to see // that all the pearls were gone]] (1. Annie 3N)
Final clH	[[]]clH or	embedded clause or clause complex is the whole nominal	And that[sic] [[why the sea is salty]] . (1. Annie 3N)

	[[//]]cH etc	group, the Head	
	multiQ multicH mixed	There is embedding in more than one element in a clause	(mixed: 1x [[]]Q (Participant) and 1x [[]]cH) (Participant)): ... that the only way [[to be split]] was [[to become friends]] . (5. Anne 4N)

Figure 3. 2-13 Summary of symbols

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INTRODUCTION TO FINDINGS

There are 48 texts in the data set, and each has been analysed in terms of its clauses, its transitivity and to some extent its logico-semantic relations. The texts are then grouped together in fours – 4 texts from each of the year group in the same genre – so that we end up with 16 accounts for each genre which can then be compared with each other according to year groups, genre and such. Texts numbered 1 to 16 are Narratives, 17 to 32 are Expositions, and 33 to 48 are Reports. This chapter, then, provides a detailed description of the data concerning Narratives. Expositions and Reports will be dealt with in Chapters 5 and 6 respectively.

This Chapter (like Chapters 5 and 6 to follow) is broken up into 4 Sections:

Section 4.1 Year 3 Narratives

Section 4.2 Year 4 Narratives

Section 4.3 Year 5 Narratives

Section 4.4 Year 6 Narratives

Each section comprises, in essence, 30 tables. Each set of Tables and the associated descriptions present information about Year Narratives. In addition, the initial set of Tables in Section 4.1 (the Year 3 Narratives) provides a 'template' for reading the ensuing comparable series of tables containing information about the rest of the texts in the data set.

The information is presented in three parts.

Section 4.1.1 presents the texts, set out with their generic organisation.

Section 4.1.2 gives sentence level information about the whole texts, intended to gather together 'gross' features of the texts – the features which can characterise the texts as whole texts, some sense of which is garnered in a first reading. These details include such features as length of text (in sentence, clause, word and lexical terms) as well as deductions of lexical density and mean clause length. Also included are counts of other features that are expected to show development across the years and

genres: the number and form of embedded clauses, and an idea of the nature of the logical-semantic relations between clauses in complexes.

Section 4.1.3 analyses the 4 texts in terms of transitivity elements – Processes first, then Participants, then Circumstances. The first sweep of each element looks at the function of each instance, tallying them so as to be able to compare both usage and variation in each year group and genre. The transitivity elements are then examined in terms of their form. A final subsection is devoted to the nominal group, because of the enormous potential of the nominal group to expand (‘amplification’). This section draws on all instances of nominal groups in the texts, whether they appear as Participants or as elements in prepositional phrases realising the Circumstances.

The order of the tables is designed to begin with the most general information, presenting a summary of that which is expanded in following tables, gradually working to the specific. Most examples from texts appear therefore at the end of a sequence of Tables.

In general the tables will be presented first with a description to follow, but in this first 'template' set, a general description will precede each table.

For ease of reference, the following shorthand is used throughout:

Shorthand	Full reference
IFG3	Halliday, M. A. K. and Matthiessen, C. I. I. M. (2004). <i>An introduction to functional grammar</i> (3rd ed.). London: Arnold.
DFG	Martin, J. R., Mathiessen, C. M. I. M. and Painter, C. (2010). <i>Deploying functional grammar</i> . Beijing: Commercial Press.

Other abbreviations or short-hand notations used are elucidated when not self-explanatory.

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4.1 Findings: Year 3 Narratives

4.1.1 The Year 3 Narratives

This section contains four sets of two tables. The first table in each set presents the raw text, roughly divided into the typical organisational stages identified for narratives – orientation, complication, resolution and coda (optional). (For accuracy's sake, errors are identified with the use of *[sic]*; however this practice is dropped when quoting examples).

The second table in each set sets out some general numerical data about the text – the number of sentences, the number of ranking clauses (both simplex and complex), the total number of ranking clauses, the number of clauses with embedded clauses (both simplex and complex), and lexical and word counts.

Some texts show more maturity and familiarity with the genre than others. Using the presence of the non-optional stages as a measure, all are more-or-less successful as narratives.

4.1.1.1 Text 1. Why the Sea is Salty, by Annie

Table 4. 1-1 Text 1. Why the Sea is Salty (Annie, 3/N)

Text number. Text Title (Author, Year/Text type designation) Text	Text Organisation
1. Why the Sea is Salty (Annie, 3/N)	Stages
Years ago when fairies and pixies ruled the land, there was a friendly giant who always wanted to run a restrant[sic]. He was a good cook too. He could make eatable pearls out of salt, kelp out of lollies from where the humans live and a lot more.	Orientation
But one day a robber came to where the giant lived and saw the ready-made pearls. He thought the pearls were real and took them to decorate his house with.	Complication
He went to his house using the sea route, not knowing the pearls would break back into salt if they touched water. So when he got home he was surprised to see that all the pearls were gone. Of corse[sic] since his house was at the very end of the sea the salt had scattered everywhere so it made the sea salty.	Resolution
And that[sic] why the sea is salty.	Coda

Table 4. 1-2 Text 1. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
9	3	6	22	2	1	68	147	3.1	6.7

4.1.1.2 Text 2. The Three Beggars, by Babs

Table 4. 1-3 Text 2. The Three Beggars (Babs, 3/N)

2. The Three Beggars (Babs, 3/N)	Stages
Once there lived three children. They lived in an old rundown house. Their names were Buffy, Sharon, and Karis.	Orientation
All they had was an old cow. One day Karis said, "I'm going to sell our cow and get some money for us." "Please let us come Karis," pleaded Buffy. "Okay" sighed Karis. When they got to town they met a man. The man wanted their old cow for his horse and 1000 dollars.	Complication
Karis gave him the cow and took the money and horse. So with all the money they bought a nice house and two more horses. With lots of friends.	Resolution

Table 4. 1-4 Text 2. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
11	6	5	17	1	0	56	102	3.3	6.0

4.1.1.3 Text 3. Cat Wars, by Cain

Table 4. 1-5 Text 3. Cat Wars (Cain, 3/N)

3. Cat Wars (Cain, 3/N)	Stages
Once there was a Jedi called cat-one-konobi. He was on a mission to kill bark vader. He went on his ship called cat-o-one. They were on a colistoin[sic] course with Bark vader.	Orientation
They started firering[sic] at each other. Then Bark vader boreded[sic] them. They hid from bark vader. Bark Vader told his puppy troopers to search the ship. They found him.	Complication
Then he got out his light saber. It went up. Meowwww. Bark vader didnt get out his light saber. He just splashed him with a bucet[sic] of water. Because cats hate water. He run[sic] outside the ship. He fogot[sic] he go could'nt[sic] breath in space and he died. The End [picture]	Resolution

Table 4. 1-6 Text 3. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
16	13	3	20	3	0	57	109	2.9	5.5

4.1.1.4 Text 4. The Cool Game, by Lacy

Table 4. 1-7 Text 4. The Cool Game (Lacy, 3/N)

4. The Cool Game (Lacy, 3/N)	Stages
Once upon a time lived 2 girls. In town. There[sic] names were Jade and Bubbles. They both were best friends. They went into a game zone. Jade found a cool game. She had lots of money in her pocket.	Orientation
Bubbles didn't have any. Jade kept on playing the cool game. Bubbles just wait, wait and wait. She got really sad.	Complication
Untill[sic] Jade let her had[sic] a turn. She said thank you.	Resolution
Always give your friend a turn of playing things. Like sharing.	Coda

Table 4. 1-8 Text 4. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
13	12	1	14	2	0	47	82	3.4	5.9

4.1.2 Sentence-level information (Year 3 Narratives)

The top section of Table 4. 1-9 collates the 'whole text features' from the texts above, showing the four texts of the genre of the Year group, numbered in an additional left hand column (Column A). The remaining columns repeat the data from above – the number of sentences (Column B), the number of ranking clauses (both simplex (Column C) and complex (Column D)), the total number of ranking clauses (Column E), the number of ranking clauses with embedded clauses (both simplex (Column F) and complex (Column G)), and lexical (Columns H and J) and word counts (Columns I and K). The details for the four texts are totalled (T) and averaged (Av) in the bottom two rows, Part B. This section of the table contains the Year group information that is drawn on for subsequent tables. For example and most immediately, Table 4. 1-10 to Table 4. 1-16 below expand the clausal information tallied in Part B of Table 4. 1-9.

Table 4. 1-9 Overview (Year 3 Narratives)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
1	9	3	6	22	2	1	68	147	3.1	6.7
2	11	6	5	17	1	0	56	102	3.3	6.0
3	16	13	3	20	3	0	57	109	2.9	5.5
4	13	12	1	14	2	0	47	82	3.4	5.9
Part B										
T	49	34	15	73	8	1	228	440		
Av	12.25	8.5	3.75	18.25	2	0.25	57	110	3.1	6.0

Texts 1-4 are the Year 3 Narratives. Sentence level characteristics of each text are set out in Table 4. 1-9, summarised in the final 2 rows. From this lower section of the table, it can be seen that the Year 3 Narrative data is contained in 49 sentences, comprised of 34 clause simplexes (69%) and 15 clause complexes (31%). Altogether there are 73 ranking clauses. Of the 73 clauses, 9 contain embedded clauses in some form (Columns F + G) (12.3%) while 64 (87.7%) do not (Columns E – (F + G)). Of the clauses that contain embedding, 8 contain clause-simplexes and 1 contains a clause-complex. The ratio of total words (440) to lexical items (228) is 1.9:1 and the average lexical density across the 4 texts (clauses÷lexical items) is 3.1. The mean length of each clause is 6.0 words.

This data will provide points of simple direct comparison of general features with the other data sets.

It will be noticed that there is not uniformity. For example, three of the four texts utilise more simplexes than complexes. However, using the data in the table above, the characterisation of this group is that the usage of clause complexes is less than the use of clause simplexes, with the overall ratio being formalised as about 1:2.

4.1.2.1 Sentence constituents (Year 3 Narratives)

To provide further detail about whether sentences are simple single clauses or are in fact clause complexes (Columns B, C and D of Table 4. 1-9 above), Table 4. 1-10

shows the distribution and interdependency relations of clauses across the sentences for the text group as a whole.

Columns A, B and C deal with sentence length in terms of number of clauses. In the first Column are the possible sentence lengths – from 1 to 8 clauses (no sentence in the whole data set is greater than 8 clauses long). The second Column shows the number of instances of each clause-length sentence in the Year-group Text-type (Year 3 Narratives in this case); the total of this Column shows the number of clause complexes (sentences) in the group of texts (as in Column B of Table 4. 1-9). The third Column gives percentages of sentences of a particular clausal length.

Columns D, E F and G of Table 4. 1-10 deal with explicit interdependency relations (parataxis and hypotaxis) between the clauses within sentences (explicating Columns C and D of Table 4. 1-9). With the number of clauses in the sentences presented in Column B, we can see where clauses are simplex containing no relation (Column D), are in a paratactic relation (Column E), are in a hypotactic relation (Column F) or are in a sentence with a combination of the two (Column G). Percentages of the relation types are given across the bottom of the table.

The final Column (H) tallies the number of clause nexus points ((Column A minus 1) x Column B) so that a straight count of paratactic and hypotactic occurrences may be made. This information is used to construct Table 4. 1-11.

Table 4. 1-10 Sentences and clauses (Year 3 Narratives)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no explicit dependency (simplex)	With paratactic dependency (complex)	With hypotactic dependency (complex)	With dependency of both types (complex)	Total nexuses
1	34	69.4	34				
2	9	18.4		4	5		9
3	4	8.2		1	1	2	8
4	1	2.0				1	3
5	1	2.0			1		4
6							
7							
8							
Total	49	100	34	5	7	3	24
%			69.4	10.2	14.3	6.1	

In Table 4. 1-9, we see that the 49 sentences in the Year 3 Narratives are made up of 34 clause simplexes and 15 clause complexes. In Table 4. 1-10, these bare figures are fleshed out. As may be seen from Columns A to D of Table 4. 1-10, a large proportion, 34 of 49 sentences, or 69.4%, contain a single clause. As might be expected for young writers, the number of sentences steeply reduces as the number of constituent clauses increases. More than two-thirds of the sentences contain only one clause; about a fifth contain two clauses; fewer than a tenth contain three clauses; the remaining sentences contain four or five clauses. Hence the clear majority (69.4%) of the sentences are simplex.

Put another way, the 34 clause simplexes represent 69.4% of the total clauses, leaving 30.6% of clauses involved in a complex. The clause complexes are of varying length: 18% are 2 clauses long, 8% are 3 clauses long, 2% are 4 and 2% are 5 clauses long.

30.6% of sentences are clause complexes. In these clause complexes, those with clauses all joined hypotactically (7 sentences) are slightly more common than those containing only parataxis (5 sentences), and sentences containing a mixture of both types slightly less common (3 sentences). It is of interest that parataxis is restricted to the shorter sentences (2 or 3 clauses) while the hypotactic relations extend to the longest sentence (of 5 clauses). In this data set, nexuses total 24 (Column H).

Taking into account both the sentences with a single type of dependency and those with of both types, the total number of paratactic nexuses and the total number of hypotactic nexuses may be determined, in order to provide a simple comparison with other data-groups. Table 4. 1-11 lists separately the number of paratactic nexuses, the number of hypotactic nexuses, and the total number of nexuses, and then gives the percentage paratactic to total nexuses and the percentage of hypotactic to total nexuses.

Table 4. 1-11 Dependency relations between clauses (Year 3 Narratives)

Nexus type	Count	%
Paratactic	9	37.5
Hypotactic	15	62.5
Total	24	

Of the 24 nexuses in the Year 3 Narratives, 9 (37.5%) are paratactic and 15 (62.5%) are hypotactic.

Table 4. 1-12 shows usage of the logico-semantic relations, expansion and projection. Logico-semantic relation types are listed in the first 3 Columns, A, B and C. Column D shows the logico-semantic relations in the paratactic clause nexuses and Column E shows those in the hypotactic clauses nexuses. Columns F and G give detail on the clause form of the dependent clause in the hypotactically joined clauses reported in Column E; thus, Columns F+G = Column E.

Table 4. 1-12 Taxis/logico-semantic relations in clause complexes (Year 3 Narratives)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification				
		description		2	2	
	extension	addition: additive	5	2		2
		addition: adversative				
		variation				
		alternation				
	enhancement	temporal		3	3	
		spatial				
		manner				
		cause	1	4	2	2
		conditional		1	1	
projection	locution idea	(speech)	3			
		(thought)		3	3	
		Total	9	15	11	4

Column D of Table 4. 1-12 shows the 9 instances of parataxis. The complexes are expanded through *extension: addition* (5) and through *enhancement: cause* (1). There are 3 instances of *projection: locution* (direct speech).

Column E shows the 15 instances of hypotaxis. All types of *expansion* are utilised: *elaboration: description* (2), *extension: addition* (2), and in *enhancement*, three sub-types – *:temporal* (3), *:cause* (4) and *:conditional* (1). There are 3 instances of *projection: idea* (reported thought). These 15 hypotactic clause complexes employ dependent clauses of both finite (11) and non-finite forms (4).

Having concentrated to this point on the make-up of sentences in terms of ranking clauses, the following group of tables transition focus to the occurrences and placements of embedded clauses, explicating Columns E, F and G of Table 4. 1-9, where the number of ranking clauses and the number of those clauses that contain embedded clauses are summarised. Table 4. 1-13, Table 4. 1-14, Table 4. 1-15 and Table 4. 1-16 expand on these summaries. Firstly, in Table 4. 1-13, ranking clause data is collated in order to give information about embedding in the ranking clauses.

Table 4. 1-13 Dispersion and count of ranking clauses (Year 3 Narratives)

Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	34	34	7	27
2	9	18	2	16
3	4	12		12
4	1	4		4
5	1	5		5
6				
7				
8				
Total	49	73	9	64
%			12.3	87.7
Average per text	12.25	18.25	2.25	16

The first two Columns of Table 4. 1-13 replicate data from Table 4. 1-10, and which multiplied together give the number of ranking clauses in each sentence of a given length, shown in the third Column. This allows us to become more explicit about where any embedded clauses appear, which data is given in the final two Columns. This information gives some idea of where amplification of the nominal group is occurring.

Over the text-group as a whole, 64 clauses, or 87.7%, do not contain embedding; 9 (or 12.3%) do. In other words, sentences without embedding outnumber sentences with by about seven to one. Only 7 of the 34 single-clause sentences and only 2 of the 18 duo-clause sentences contain embedding, either simplex or complex. Longer sentences, with 3, 4 or 5 clauses, do not contain embedding.

It is the 9 (or 12.3%) of ranking clauses that contain embedding that we are now interested in. Table 4. 1-14 extends the analysis of Table 4. 1-13, tallies (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the functional constituent element of its host clause (Columns D and E). Column A explains the shorthand used in Column C, which lists the forms of embedding options, taken from the whole data set from Year 3 to Year 6 across all text-types. Three items, 'multiQ', 'multicIH', and 'mixed', represent instances when there is embedding in more than one element in the one clause, for example in a Participant and a Circumstance. (There are rare instances of two separate embeddings in one element; see Table 4. 4-13 for an example in Year 6 Narratives).

These separate occurrences in the one clause are recognised in the Columns D and E (and in Table 4. 1-15). Column F gives selected examples only – not all – of the instances that occur.

Table 4. 1-14 Embedding in ranking clauses (Year 3 Narratives)

A	B	C	D	E	F
Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
Embedded clause/s as Qualifier in a nominal group Q	4	[[]Q	4		All [[they had]] was an old cow. (2. Babs) Once there was a Jedi [[called cat-one-konobi]] . (3. Cain) He was on a mission [[to kill bark vader]] . (3. Cain) He went on his ship [[called cat-o-one]] . (3. Cain)
		[[[]Q]Q			
		multiQ			
	1	[[//]Q	1		he was surprised [[to see // that all the pearls were gone]] (Annie 7.1)
		[[// //]Q			
		[[// // //]Q			
Embedded clause/s as a whole nominal group clH	4	[[]clH	3	1	... a robber came to [[where the giant lived]] (1. Annie) (Circumstance) And that [[why the sea is salty]] . (1. Annie) (Participant) Always give your friend a turn of [[playing things]] . (4. Lacy) (Participant) Like [[sharing]] . (4. Lacy) (Participant)
		[[[]Q]clH			
		multiclH			
		[[//]clH			
		[[// //]clH			
		[[// // //]clH			
		[[// []Q]clH			
		[[<<>>]clH			
Both		mixed			
	9	Totals	8	1	
Summary					
Qualifier in a nominal group	5	55.6%	5		
Whole nominal group	4	44.5%	3	1	
Totals	9	100%	8	1	
			88.9%	11.1%	

In the Year 3 Narratives, 9 of 73 clauses contain embedded clauses. Table 4. 1-14, shows that the embedding occurs 5 times as a post-modifying clause in a nominal group, denoted here with a final Q. Embedding occurs 4 times where the clause acts as the whole nominal group, denoted with a final clH. As may be seen from Columns D and E, embedding in/as Circumstances is rare, occurring only once, whereas embedding in/as Participants is much more common, occurring eight times. Examples are given in Column F of Table 4. 1-14.

Table 4. 1-14, emphasising the function of the embedded clauses, can be read in conjunction with Table 4. 1-15, which foregrounds the complexity of the embedded clauses, as simplexes or complexes. The first Column tallies the embedded items while the count in the right hand Column includes each individual clause, whether a simplex or part of a complex or part of an embedding within another clause. One example of each usage is included in the table. Table 4. 1-15 essentially provides a different way of looking at the data in Table 4. 1-14, with some additional finer detail of layers of embedding.

Table 4. 1-15 Embedded clauses (Year 3 Narratives)

Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total clauses embedded
8	simplexes		8
8	[[]]	... a robber came to [[where the giant lived]] . (1. Annie) And that [[why the sea is salty]] . (1. Annie) All [[they had]] was an old cow. (2. Babs) Once there was a Jedi [[called cat-one-konobi]] . (3. Cain) He was on a mission [[to kill bark vader]] . (3. Cain) He went on his ship [[called cat-o-one]] . (3. Cain) Always give your friend a turn of [[playing things]] . (4. Lacy) Like [[sharing]] . (4. Lacy)	8
	[[]]c (multiple in one clause)		
	[[]]el (multiple in one element)		
	[[e]] (embedded in a simplex)		
	e[[]]Q (form of [[e]])		
1	complexes		2
1	[[// //]]	So << >> he was surprised [[to see // that all the pearls were gone]] . (1. Annie)	1 1
	[[// // //]] [[// // [[]]]]		
	[[<<>>]] incl		
9	Total		10
Summary of complexity of embedded clauses			
simplexes	8	88.9%	Average per text: 2
complexes	1	11.1%	Average per text: 0.25
Totals	9	100%	Average per text: 2.25

The total embeddings in Year 3 Narratives comprise 8 clause simplexes and 1 clause complex; the complex being of 2 clauses leads to a total of 10 total individual clauses embedded (Table 4. 1-15)

Table 4. 1-16 collects together all the embedded clauses in the group of texts to account for each one, grouping them in terms of their function in the clause (Columns A and B). Most notably it allows us to be more delicate in isolating the use of adjectival nominal groups, where the Head word of the nominal groups is an

adjective rather than the more usual noun. The count (Column C) is of the individual embedded clauses and so coheres with the bottom right count of Table 4. 1-15. Column D lists examples, and Column E shows the transitivity element.

Table 4. 1-16 Detail of use of embedded clauses (Year 3 Narratives)

A	B	C	D	E
Placement shorthand	How embedding manifests	Simplex/ individual clause count	Examples	
in_ngQ_(P)	as Qualifier in a nominal group in a Participant	3	All [[they had]] was an old cow. (2. Babs)	value
			Once there was a Jedi [[called cat-one-konobi]] . (3. Cain)	existent
			He was on a mission [[to kill bark vader]] . (3. Cain)	attribute (circ)
in_ngQ_(C)	as Qualifier in a nominal group in a Circumstance	1	He went on his ship [[called cat-o-one]] . (3. Cain)	
in_ngQ_(e)_(P)	as Qualifier in a nominal adjectival group in a Participant 1x2	2	he was surprised [[to see // that all the pearls were gone]] (1. Annie)	attribute
in_ngQ_(e)_(C)	as Qualifier in a nominal adjectival group in a Circumstance			
clH_(P)	as whole nominal group in a Participant	3	And that [[why the sea is salty]] . (1. Annie)	value
			Always give your friend a turn of [[playing things]] . (4. Lacy)	scope
			Like [[sharing]] . (4. Lacy)	attribute (circ)
clH_(C)	as whole nominal group in a Circumstance	1	But one day a robber came to [[where the giant lived]] (1. Annie)	location: place
in_XX_(P)	in a group complex that is Participant			
in_XX_(C)	in a group complex that is Circumstance			
Total		10		
Summary of function of embedding and as Participant or Circumstance				
as Qualifier in a nominal group in a Participant		5		
as whole nominal group in a Participant		3		
as Qualifier in a nominal group in a Circumstance		1		
as whole nominal group in a Circumstance		1		
Total		10		

Embedded clauses occur most often in or as Participants (8 times): as *Qualifier in a nominal group in a Participant* (5 times, 2 of which appear as a clause complex in a *nominal adjectival group*) and as the *whole nominal group in a Participant* (3 times). Embedded clauses occur less often in or as Circumstances (2 times): as *Qualifier in a nominal group in a Circumstance* (once) and as the *whole nominal group in a Circumstance* (once). We will look more closely at the whole nominal group in Section 4.1.3.4.

4.1.2.2 General description (Year 3 Narratives)

The Year 3 Narratives have been characterised according to average length in terms of sentences (12.25) and individual ranking clauses (18.25) and by a simple word average (110) which has been divided into lexical (57) and, by calculation, grammatical (53) items. Lexical density has been calculated (3.1). The ranking clauses have been further described by average usage of clause-simplexes (8.5) and clause-complexes (3.75). The explicit interdependency relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 37.5% to 62.5%. Logico-semantic relations in clause-complexes are identified.

Embedded clause usage has been tallied from two perspectives: (i) number of clauses containing embedding and (ii) number of embedded clauses. The average per text for (i) is (2.25): clauses containing embedded simplexes (2) and those with clause complexes (0.25). The average per text for (ii) is (2.25): embedded simplexes (2) and embedded complexes (0.25). When employed, embedded clauses are used both as qualifiers in a nominal group (55.6%) and as Whole nominal groups (44.5%). They are involved in (or as) Participants (88.9%) and (or as) Circumstances (11.1%).

Simple averages and percentages for these features will enable a comparison with the other Year group text-types under study.

In summary, in Table 4. 1-9, some general features of the Year 3 Narratives are gathered together and summarised. The rest of the tables in Section 4.1.2 supply further detail about those features as well as indicating which further analysis will be

potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of analysis: a look at the Experiential elements of the texts (Section 4.1.3), looking first at the functional elements in a clause (Processes, 4.1.3.1; Participants, 4.1.3.2; Circumstances, 4.1.3.3), and then at the breakdown of the nominal group 4.1.3.4).

Now we turn to look more closely at the functional constituents of the sentences/clauses.

4.1.3 Clause Constituents – Transitivity (Year 3 Narratives)

This section looks at what is happening in the clause, at the elements that combine to form clauses. In particular, it details the transitivity elements in use in the Year group Narratives.

Each element is looked at separately, firstly by function and then by form.

For each text, functional constituents have been identified and tallied. After the functional types are presented, the form of the constituents is presented, as well as selected detail pertinent to the particular form: in the case of Processes, simple counts of use of phrasal verbs and modals (finites and adjunct) and greater detail of verbal group complexing; in the case of Participants, detail of the nominal group; in the case of Circumstances, detail of the nominal group in the prepositional phrase.

We start with Processes, proceed with Participants and end with Circumstances.

4.1.3.1 Processes (Year 3 Narratives)

Following Halliday's treatment of Process types in two categories, principal and subsidiary (IFG3 p.248), the functional types are collated below, in Table 4. 1-18.

4.1.3.1.1 Functional types of Processes (Year 3 Narratives)

Table 4. 1-18 shows the spread of use of Process type in the Year group texts. The Process types are listed in Column A, with both mental and relational types expanded. Mental types include the sub-types of cognition, desideration, emotion and perception (IFG3 p.208). Relational types are separated into relation-type (attributive or identifying) with sub-subcategories (intensive, circumstantial or possessive) (IFG3 pp.210-247). Both these expanded process types are summed at the head of their section. In Columns B, C and D, ranking and embedded clauses are counted separately and then tallied. Column E shows the percentage of ranking clauses of each type, and Column F combines the embedded clauses with the ranking to show the overall percentage of all Process types in the texts. The bottom row shows the number of different Process types used by Year 3 Narrative writers.

Table 4. 1-18 Process types (Year 3 Narratives)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	38	4	42	54.3	52.5
mental	7	1	8	10.0	10.0
mental: cognition	3	1	4	4.3	5.0
mental: desideration	2		2	2.9	2.5
mental: emotion	1		1	1.4	1.3
mental: perception	1		1	1.4	1.3
relational	14	5	19	20.0	23.8
R attrib: intens	8	2	10	11.4	12.5
R attrib: circ					
R attrib: poss	2	1	3	2.9	3.8
R id: intens	4	2	6	5.7	7.5
R id: circ					
R id: poss					
Subtotal(principal)	59	10	69	84.3	86.3
Subsidiary					
behavioural	2		2	2.9	2.5
verbal	5		5	7.1	6.3
existential	4		4	5.7	5.0
Subtotal(subsidiary)	11		11	15.7	13.8
Total	70	10	80	100	100
%	87.5	12.5	100		
Count of different Process types used	6	3	6		

To take in the ‘big picture’ first, it is useful to start at the second and third last rows of Table 4. 1-18. Here we see there are 70 ranking clauses and 10 non-ranking clauses, making a total of 80; in terms of proportions, ranking clauses make up 87.5% of the clauses and non-ranking 12.5%.

Considering Column B of Table 4. 1-18, a preliminary observation is that principal Processes (59 or 84%) outnumber subsidiary Processes (11 or 16%), as might be expected from the classification that assigns them those names.

Of the principal ranking Processes, the material are by far the most common (38), the relational next most common (14), but less than half as common as the material; the mental are half as common again (7). The subsidiary Processes are distributed between the verbal, existential and behavioural, with 5, 4 and 2 instances, respectively.

Comparing with Column C, there are far more ranking clauses, 70, than embedded clauses, 10. The embedded clauses, interestingly, are distributed across the Process types differently to the ranking clauses. The most common type of embedded clause is relational (5), then comes material (4); there is only one mental embedded clause, and there are no subsidiary embedded clauses.

The combination of the ranking and embedded clauses is given in Columns D and F of Table 4. 1-18. The effect of the embedded clauses softens the dominance of the material Processes observed in the ranking clauses, but even so, more than half (52.5%) of the Process types are material. Next most represented are the relational Processes (23.8%), then come mental Processes (10%). Subsidiary Processes make up the remainder (13.8%). In approximate terms, half the Processes are material and one quarter relational.

Within the relational Processes in ranking clauses, *attributive intensive processes* occur most often, 8 times; next, with halving frequencies, *identifying intensive* (4) and *attributive possessive* (2). A similar pattern holds for relational Processes in the non-ranking clauses, with *attributive intensive* occurring most often (2), *identifying intensive* (2) and *attributive possessive* (1). With respect to mental Processes, the

order of frequency of appearance in ranking clauses is *cognition* (3), *desideration* (2), *emotion* (1) and *perception* (1); in non-ranking clauses, the sole example is *cognition*.

Across clause types, the frequency of use of types of Processes is:

material	42	(52.5%)
relational	19	(23.8%)
mental	8	(10.0%)
verbal	5	(6.3%)
existential	4	(5.0%)
behavioural	2	(2.5%)
Total	80	(100%)

Year 3 students use all types of Processes in the ranking clauses in their Narratives, and only 3 in their embedded clauses (having no use for the subsidiary types, behavioural, verbal and existential).

4.1.3.1.2 Realisation – form of Processes (Year 3 Narratives)

Processes are realised by verbal groups. Table 4. 1-19 counts the verbal groups – in both ranking and embedded clauses – and further divides them according to whether there is any complexity in the verbal group. (Note: complexity involving the “fuzzy area” (DFG p.193) – verbal groups with *be* or *have* as the first element – have been treated as simple verbal groups.) Table 4. 1-19 also counts the number of verbal groups that are phrasal, and collates the number of modal finites⁴ and modal adjuncts used; however, these other features are included for interest only and will not be commented on further.

⁴ Conatives ‘tried to’ and the temporal ‘started to’ are not included in the count of modal finites. They are considered to be verb complexes. See Appendix B (**Error! Reference source not found.**) for a guide to verb complexes.

Table 4. 1-19 Process form (Year 3 Narratives)

A	B	C	D	E	F
Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Complexity:					
verbal group simplexes	63	10	73	90.0	91.3
verbal group complexes	7		7	10.0	8.8
Total	70	10	80	100	100
Other features:					
phrasal verbs	3		3		
modal finites	6		6		
modal adjuncts	3		3		

From Table 4. 1-19 it is clear that simplexes occur much more frequently than complexes in the verbal groups used in Year 3 Narratives. No verbal group complexes occur in the embedded clauses. Within the ranking clauses, simplexes account for 90% of the groups; when embedded clauses are included, simplexes rise to a fraction of 91.3%.

Modal finites, phrasal verbs and modal adjuncts are all used in Year 3 Narratives. Modal finites were used 6 times and modal adjuncts 3 times. There were 3 phrasal verbs used.

Table 4. 1-20 complements Table 4. 1-19 by explicating the types of complexity found in the verbal group complexes, and Table 4. 1-21 collates instances found in the texts.

Table 4. 1-20 Verb complexing summary (Year 3 Narratives)

Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis	1		1	14.3	14.3
expansion elaboration					
expansion extension	1		1	14.3	14.3
expansion enhancement					
projection not applicable					
Hypotaxis	6		6	85.7	85.7
expansion elaboration	2		2	28.6	28.6
expansion extension	1		1	14.3	14.3
expansion enhancement	2		2	28.6	28.6
projection	1		1	14.3	14.3
Multiple complexing					
Total	7		7	100	100

From Table 4. 1-20 it is evident that hypotaxis is used much more widely than parataxis. The sole example of parataxis related to *expansion: extension*. The examples of hypotaxis were spread over *expansion: elaboration* (2), *expansion: enhancement* (2), *expansion: extension* (1) and *projection* (1). All 6 instances are set out in Table 4. 1-21.

Table 4. 1-21 Instances of complexing in the verb (Year 3 Narratives)

Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis	1			
expansion elaboration				
expansion extension	1	Bubbles just wait, wait and wait . (4. Lacy)	behavioural	and or
expansion enhancement				
projection				
Hypotaxis	6			
expansion elaboration	2	They started firing at each other. (3. Cain) Jade kept on playing the cool game. (4. Lacy)	material material	general: start general: keep
expansion extension	1	He could make eatable pearls out of salt, kelp out of lollies from [[where the humans live]] and a lot more. (1. Annie)	material	general: can=> modality
expansion enhancement	2	Please let us come Karis,” (4. Lacy) Untill Jade let her had a turn. (4. Lacy)	material material	caus mod agency low caus mod agency low
projection	1	who always wanted to run a restrant (1. Annie)	mental: desideration	proposal:idea want
Multiple complexing				
Total	7			

4.1.3.2 Participants (Year 3 Narratives)

4.1.3.2.1 Functional types of Participants (Year 3 Narratives)

Participant roles are set out in Table 4. 1-22. Column A of Table 4. 1-22 sections the table according to Process type: material, mental, relational, behavioural, verbal, existential. As in the table of Process types, relational Processes here are again separated into relation-type (attributive or identifying) with sub-subcategories (intensive, circumstantial or possessive) (IFG3 pp.210-247). Column B lists characteristic Participant roles associated with the Process types in Column A. In an

effort to keep track of whether relational categories of circumstance and possession are being used to any degree, the relational Participant section has been expanded to allow the inclusion of ‘sets’ of Participants associated with the 'characterising' ('attrib') and 'identity' ('identify') Processes. These Participants are tallied grossly (undelicately) at the tops of their section as carrier/attribute and token/value. Column B is organised to have directly involved Participants at the head of each section (in bold) and obliquely involved Participants beneath. Counts are given for ranking (Column C) and non-ranking (Column D) clauses and for the sum of these (Column E). The final two Columns give percentages, firstly of Participant roles in ranking clauses (Column F), and then of all Participant roles within the text-group (Column G). Summary information is given in the bottom section of the table.

Table 4. 1-22 Participant roles (Year 3 Narratives)

A	B	C	D	E	F	G
Process type	Participant roles	Ranking	Embedded	All	% Ranking	% Total
material	actor	33	1	34	29.7	28.1
	goal	22	1	23	19.8	19.0
	<i>oblique</i> recipient	2		2	1.8	1.7
	client	1		1	0.9	0.8
	scope	3	1	4	2.7	3.3
	initiator	1		1	0.9	0.8
	attribute: depictive					
	attribute: resultative	1		1	0.9	0.8
mental	senser	4		4	3.6	3.3
	phenom	3		3	2.7	2.5
	<i>oblique</i> inducer					
relational: attrib	carrier	10	3	13	9.0	10.7
	attribute	11	2	13	9.9	10.7
R attrib: intens	carrier	5	2	7	4.5	5.8
	attribute	5	2	7	4.5	5.8
R attrib: circ	carrier (cir:att)	3		3	2.7	2.5
	attribute (cir:att)	4		4	3.6	3.3
	carrier (cir:pr)					
	attribute (cir:pr)					
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	2	1	3	1.8	2.5
	attribute: possessed(poss:pr/carr:p'r)	2		2	1.8	1.7
	carrier: possessed(poss:pr/carr:p'd)					
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary					
relational: ident	token	4	2	6	3.6	5.0
	value	4		4	3.6	3.3
R id: intens	token	4	2	6	3.6	5.0

	value	4		4	3.6	3.3
R id: circ	token(circ)					
	value(circ)					
R id: poss	token(poss)					
	value(poss)					
<i>oblique</i>	assigner					
behavioural <i>oblique</i>	behave	1		1	0.9	0.8
	behaviour					
	phenomenon(b)					
verbal <i>oblique</i>	sayer	5		5	4.5	4.1
	receiver	1		1	0.9	0.8
	verbiage	1		1	0.9	0.8
	target					
existential	existent	4		4	3.6	3.3
	Total	111	10	121	100	100
	Different Participant roles used	18	6	18		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, receiver, attribute; initiator	63	3	66	56.8	54.5
mental	sensor, phenomenon; inducer	7		7	6.3	5.8
relational		29	7	36	26.1	29.8
attribution identification	carrier, attribute, beneficiary, attributor	21	5	26	18.9	21.5
	token, value; assigner	8	2	10	7.2	8.3
behavioural	behaviour; phenomenon(b)	1		1	0.9	0.8
verbal	sayer, receiver; verbiage, target	7		7	6.3	5.8
existential	existent	4		4	3.6	3.3
	Total	111	10	121	100	100

The use of Participants must reflect the type of Process; both are gathered here in summary of Table 4. 1-22 and presented in descending order of frequency of use:

	Processes %	Participants %
material	52.5	54.5
relational	23.8	29.8
mental	10.0	5.8
verbal	6.3	5.8
existential	5.0	3.3
behavioural	2.5	0.8
Total	100	100

In total there are 111 Participants in ranking clauses and 10 in non-ranking clauses, making a total of 121 Participants. These are spread among 18 Participant roles.

There is no need to comment on the main Participant roles more than in passing, for they are of course taken by those that are directly involved with the Process and are largely self-evident. We are, however, interested in the more obliquely involved Participants, and our observations will revolve around those.

Table 4. 1-23 collates information about the use of the indirectly involved Participants that are counted in Table 4. 1-22. Column A again sections the table according to Process type: material, mental, relational, behavioural, verbal, existential, and relational Processes here are again separated into relation-type (attributive or identifying). Column B again lists Participant roles associated with the Process types in Column A, this time separating them into directly and obliquely involved types. Columns C and D record the usage. This allows a window into where different Year group texts are broadening the meaning in their clauses through an increased use of oblique Participant roles.

Table 4. 1-23 Range of Participant roles used, directly and obliquely involved with the Process (Year 3 Narratives)

Different Participant roles used in Year 3 Narratives					18	
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	(i) direct	(ii) oblique	Total			
material	2	6	8	2	5	7
mental	2	1	3	2		2
relational	4	3	7	4		4
attributive	2	2	4	2		2
identifying	2	1	3	2		2
behavioural	1	2	3	1		1
verbal	2	2	4	2	1	3
existential	1	0	1	1	0	1
Total	12	14	26	12	6	18

In Table 4. 1-23, Column C echoes exactly B(i), showing that those Participant roles that are directly related to the process types are all used in the Year 3 Narratives. This accounts for 12 of the Participant roles used. The remaining 6 are used as per Column D, which shows that the material clauses employ 5 Participants that are obliquely involved, and in verbal clauses there is use of one oblique Participant role.

4.1.3.2.2 Realisation – form of Participants (Year 3 Narratives)

Participants may be realised by three different classes of group – the nominal group, the prepositional phrase, and rarely, the adverbial group.

The denotation of “nominal group” encompasses a great deal. It can manifest in three ways: as a noun group where the Head of the group is a noun, as an adjectival group where the Head of the group is an adjective, and as a group where the Head is realised by a whole embedded clause. These three manifestations of the nominal group are all present in the data.

The prepositional phrase consists of a preposition (one or more) and a nominal group.

Adverbial groups as participants occur with relational Processes in the same environment as prepositional phrases.

Table 4. 1-24 gives an overview of the range of forms that Participants take in the year-group texts, summarising the information that is presented more fully in Table 4. 1-25. Both tables are organised in two main Columns, one for ranking clauses and one for embedded clauses. Participants are grouped across the top according to the class of group by which they are realised – nominal group (Columns B, C and D, and G, H and I), prepositional phrase (Columns E and J) or adverbial group (Columns F and K). The ‘nominal group’ Column is further divided into its three presentations: ‘noun group’, ‘adjectival group’ and ‘clause’ (Columns B, C and D respectively). Totals are collected in the final Column (L).

Table 4. 1-24 Summary of forms taken by Participants (Year 3 Narratives)

B	C	D	E	F	G	H	I	J	K	L
Participants in ranking clauses					Participants in embedded clauses					Both
Nominal group			Prepositional phrase	Adverbial group	Nominal group			Prepositional phrase	Adverbial group	Total
noun group	adjectival group	clause			noun group	adjectival group	clause			
102	4	1			8	2				
107			4		10					121
111					10					

The default generalised realisation of Participants is the nominal group and this is displayed in the Year 3 Narrative texts, both in the ranking clauses, where 107 of the 111 Participants are nominal groups, and in the non-ranking clauses, where all 10 have this form; overall, 117 of 121 forms fall in this nominal group category (97.5%). The other 4 Participants are in ranking clauses and are prepositional phrases.

We can now distinguish between the types of nominal groups employed. The most straightforward realisation of Participants is of course the noun group – the most common of the nominal group types – and this too is reflected in the Year 3 Narrative texts, both in the ranking clauses, where 102 of the 111 Participants are noun groups, and in the non-ranking clauses, where 8 of 10 have this form; overall, 110 of 121 forms fall in this category – 90.9%. Second by frequency are adjectival groups (4 in ranking clauses and 2 in non-ranking clauses = 6 of 121), constituting 5.0% of the Participants in all clauses. Prepositional phrases make up 4 of the 121 Participants (3.3%). One clause Participant occurs (and that within ranking clauses) (0.8%).

Table 4. 1-25 presents more detailed data of the form of Participants. The ranking and embedded Columns remain, still divided into same class Columns as in Table 4. 1-24, but there is the addition of a three-tier Column on the left (Column A). The upper tier of this Column concerns the structure of the nominal group, the middle concerns adverbial groups, and, at the bottom in the third tier, all Columns are again totalled.

The upper two tiers constitute the main purport of Table 4. 1-25, breaking down the form of the Participants from a ‘logical’, univariate perspective; the table focuses at the level of the group, locating the Head, and then the elements that modify the Head (see IFG3, p 329 for nominal groups).

Thus, for the purposes of the tables, we identify three possible chunks involved in building a group, listed in the table in the following order:

- (a) the main element, the Head, the most general term;
- (b) the categorising elements that precede the Head, collectively having a pre-modifying function; and
- (c) the categorising elements that follow the Head, collectively having a post-modifying function.

It should be noted that Table 4. 1-25 counts all the occurrences of Participants in the group of texts; each Participant is therefore identified in the Table by one feature only. The order of identifying the form features differs from the hierarchy they are presented in the table, and is as follows. The two top tiers (dealing with nominal groups and adverbial groups) are divided by group complexity. Those Participants manifesting as group-complexes are extracted first ('Two+ groups'). These instances are placed last in their tier, as they are not further analysed at this point. The Participants that remain are group simplexes ('One group') and form the top section of each tier. This section is divided into 3, corresponding to the 'chunks' identified above:

- (a) simplex groups, with only a single function – Head; these are either single words/word-complexes or whole clauses ('Head only');
- (b) simplex groups with only Head and a pre-modifying function ('Head + Pre-mod only') and
- (c) simplex groups with are those that have a post-modifying function ('Post-modification'). These groups may also have a pre-modifier.

Table 4. 1-25 Detail of forms taken by Participants (Year 3 Narratives)

A	B	C	D	E	F	G	H	I	J	K	L				
	Participants in ranking clauses					Participants in embedded clauses					Both				
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total				
	noun group	adj. group	clause			noun group	adj. group	clause							
Nominal groups															
One group	100	4	1	4		8	2				119				
Single function (Head only)	62	3	1	1		5	2				74				
Pre-mod + Head (no post-mod)	35			1		3					39				
Post-mod (may be pre-mod)	3	1		2							6				
Two+ groups	2											2			
Adverbial groups															
One group															
Head only															
Pre-mod + Head (no Post-mod)															
Post-mod (may be pre-mod)															
Two+ groups															
Summary of forms taken by Participants															
Noun groups	102					8					110				
Adj. nominal groups						4						2	6		
Clauses											1		1		
Prepositional phrases												4			4
Adverbial groups															
Total all	111					10					121				

The striking conclusions from Table 4. 1-25 are that a large majority of the nominal groups contain a single function only (74 from 119 noun groups or 62.2%) and that a large minority include a pre-modifying function (39 from 119 noun groups, or 32.8%). The nature of this pre-modification will be explored in a later section on nominal groups (Section 4.1.3.4). It may be concluded that simple Participants of just a single function are about twice as common as Participants with pre-modifying functions and other Participants are negligible in the text-group. It is, however, worth noting the use of a nominal group complex as a Participant – there are two instances of this (representing 1.7% of the total Participants).

Examples of the forms tallied in Table 4. 1-25 are given in Table 4. 1-26. In this table, the group/phrase class is swivelled to the left Column so that examples of each can be recorded. Examples are taken from ranking clauses.

Table 4. 1-26 Examples of forms taken by Participants (Year 3 Narratives)

Function feature	Form	Example	Participant roles	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	clause	[[why the sea is salty]] (1. Annie)	value	macro-thing: Wh-clause
	prep phrase	like [[sharing]] (4. Lacy)	attribute (cir:att)	
With Pre-mod	noun group	All [[they had]] (2. Babs)	value	Focus - selecting
	prep phrase	at the very end of the sea (1. Annie)	attribute (circ:att)	Focus - perspective
With Post- mod	prep phrase	on a colistoin course with Bark vader. (3. Cain)	attribute (circ:att)	Qualifier - phrase
	noun group	a turn of [[playing things]] (4. Lacy)	scope	Qualifier - phrase
	adj group	surprised [[to see // that all the pearls were gone]]. (1. Annie)	attribute	Qualifier - clause
	noun group	a Jedi [[called cat-one-konobi]]. (3. Cain)	existent	Qualifier - clause
	prep phrase	on a mission [[to kill bark vader]]. (3. Cain)	attribute (circ:att)	Qualifier - clause
Two+ groups				Taxis/LS at group rank
Post-mod Post-mod Pre-mod	noun group	eatable pearls [out of salt], kelp [out of lollies [from [[where the humans live]]]] and a lot more. (1. Annie)	goal	para exten
Pre-mod Pre-mod	noun group	a nice house and two more horses (2. Babs)	goal	para exten

4.1.3.3 Circumstances (Year 3 Narratives)

In the five remaining tables in this section, we focus on Circumstances. Instances of the Circumstances in the text-group are counted according to functional type Table 4. 1-28) and grammatical form (Table 4. 1-28, Table 4. 1-29). Examples appear in Table 4. 1-30.

4.1.3.3.1 Functional types of Circumstances (Year 3 Narratives)

Table 4. 1-26 presents a tally of the types of Circumstances that are used in the group data. The first Column lists the types available to the writer and subsequent Columns show the usage in ranking clauses, the usage in embedded clauses, the total usage, the use in ranking clauses as a percentage of the total, and the total use as a percentage.

Table 4. 1-26 Types of Circumstances (Year 3 Narratives)

A	B	C	D	E	F
Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive					
accomp: comitative	1		1	3.8	3.7
angle: source					
angle: viewpoint					
cause: behalf					
cause: purpose					
cause: reason	1		1	3.8	3.7
contingency: concession					
contingency: condition					
contingency: default					
extent: distance					
extent: duration					
extent: frequency					
location: place	13	1	14	50.0	51.9
location: time	6		6	23.1	22.2
manner: comparison					
manner: degree					
manner: means	4		4	15.4	14.8
manner: quality	1		1	3.8	3.7
matter					
role: guise					
role: product					
Total	26	1	27	100	100
%	96	4	100		
Count of different types of Circumstances used	6	1	6		

In considering the data in Table 4. 1-26, it is evident that the most common type of Circumstances is location. More specifically, location:place account for about half the occurrences and location:time account for about a quarter (see Columns E and F). Thus, of the 22 Circumstance types listed, the two location Circumstances account for about three-quarters of the occurrences. The next most common Circumstance

type is manner:means (15%). It is notable that 16 of the 22 Circumstance types tabulated are not employed at all in this text-group.

4.1.3.3.2 Realisation – form of Circumstances (Year 3 Narratives)

Circumstances are typically realised by adverbial groups and prepositional phrases, but can also realised by nominal groups. These three choices are presented here. Once again, we begin this section with a summary.

Table 4. 1-28 gives an overview of the range of forms that Circumstances appear as in the Year-group texts, summarising the information in Table 4. 1-29.

Table 4. 1-28 Summary of forms taken by Circumstances (Year 3 Narratives)

B	C	D	E	F	G	H
Circumstances in ranking clauses			Circumstances in embedded clauses			Both
Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
18	2	6			1	27
26			1			

In this text-group, prepositional phrases make up two-thirds of the Circumstances; adverbial groups have one-third the frequency of prepositional phrases, and noun groups are but rarely used. There is only one Circumstance in an embedded clause; it is an adverbial group.

Table 4. 1-29 presents more detailed data of the form of Circumstances. It mirrors Table 4. 1-25 in construction. The upper tier concerns the structure of the nominal group, the middle concerns adverbial groups, and, at the bottom in the third tier, all Columns are totalled in summary.

Table 4. 1-29 Detail of forms taken by Circumstances (Year 3 Narratives)

A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	17	2					19
Single function (Head only)	7						7
Pre-mod + Head (no post-mod)	9	2					11
Post-mod (may be pre-mod)	1						1
Two+ groups	1						1
Adverbial groups							
One group			6			1	7
Head only			4			1	5
Pre-mod + Head (no Post-mod)			1				1
Post-mod (may be pre-mod)			1				1
Two+ groups							
Summary of forms taken by Circumstances							
Prepositional phrases	18						18
Noun groups		2					2
Adverbial groups			6			1	7
Total all	26			1			27

In Table 4. 1-29 we see that the nominal groups involved in Circumstances (19), whether in a prepositional phrase (17) or alone (2), tend to have either a single function (7) or a pre-modifying function (11). There is one example of a prepositional group comprising a group complex. Surprisingly, adverbial groups display a wider variety of form, although the sample group is small. From Column H we see that there are 7 usages of adverbial groups, 5 involving a single word/word complex, 1 having a pre-modifying element and 1 having a post-modifying element.

Table 4. 1-30 Examples of forms taken by Circumstances (Year 3 Narratives)

Form	Function feature	Example	Notes
Prepositional phrases / nominal groups			
One group			
prep phrase	Head only	to town (1. Annie)	
		to [[where the giant lived]] (1. Annie)	Clause as Head
prep phrase	Pre-M	with a bucet of water.(3. Cain)	Focus - re-counting
prep phrase		outside the ship (3. Cain)	
prep phrase		into a game zone (2. Babs)	use of Classifier
noun group		one day (1. Annie)	
prep phrase	Post-M	on his ship [[called cat-o-one]] (3. Cain)	post-modifying clause
Two+ groups			
prep phrase with 2 noun groups	Pre-M Pre-M	for his horse and 1000 dollars	1x paratactic extension ('and')
Adverbial groups			
One group			
adverbial group	Head only	once (3. Cain)	
adverbial group	Pre-M	years ago (1. Annie)	
adverbial group	Post-M	once upon a time (4. Lacy)	post-modifying phrase
Two+ groups			

4.1.3.4 The Nominal Group – a special case: (Year 3 Narratives)

The nominal group, whether realising a Participant or an element of Circumstance, carries much of the experiential meaning of a text. The nominal group has tremendous potential to expand ('amplification'), and thus may well display development in children's language (Christie 2002). Given that potential, here are collected together the nominal groups from Participants and from Circumstances, both ranking and embedded. Table 4. 1-30 at once replicates and expands on the information in Tables 1-24 and 1-28, collecting the data concerning all nominal groups that are present in the Year 3 Narratives. Although lexical choices of nominal groups are made according to field, genre may be seen to be a variable of amplification choices.

In Table 4. 1-30 the single nominal groups are collected together. They are again classified according to their univariate structure – whether they consist of a single function (Head (or fused Head) only), whether they also include a pre-modifying function, or whether they include a post-modifying function. The instances that include both a pre-modifying and a post-modifying function are not distinguished at this stage. So, proceeding down the rows of the Table, the simplest nominal group consists of a single function only. Instances of these are counted. A pre-modifying function may be added. These are counted. A post-modifying function may be added. These are counted.

In order for the analysis to become more delicate, and keeping in mind the objective of discerning development in the usage of different features, the table also subdivides the ‘univariate’ sections according to different manifestations of one element of the ‘multivariate’ structure, the Thing. This serves to separate out obvious gross features in each section. It will also allow us later to look more closely at the nominal group in terms of other elements of the ‘multivariate’ structure.

As might be expected, the figures in the ranking and embedded Columns roughly equate to the sum of those same Columns in the previous Participant and Circumstance tables. Discrepancies and the insertion of an ‘other’ Column are accounted for thusly: A nominal group is but a constituent of the Participant or Circumstance. It may be the whole or just a part – in fact one Participant or Circumstance may be made up of multiple nominal groups. For example, the longest Participant in the Year 3 Narratives occurs in text 1 in the clause

He (Actor) could make (material Process) eatable pearls out of salt, kelp out of lollies from where the humans live and a lot more (Goal).

The Goal (*eatable pearls out of salt, kelp out of lollies from where the humans live and a lot more*) comprises three nominal groups:

1. *eatable pearls out of salt,*
2. *kelp out of lollies from where the humans live*
3. *and a lot more*

This one Participant will be counted once as a nominal group complex in the Participant table above (Table 4. 1-25). In the nominal group table below (Table 4. 1-30), it will be counted, in the ‘other’ Column, as two ‘with qualifying phrase’ and one ‘with pre-modifying function (Epithet)’.

This example also illustrates that nominal groups can be found within nominal groups as well as alongside. In addition to the 3 nominal groups identified above, the following are also nominal groups and will be counted in the ‘other’ Column:

4. *eatable pearls*
5. *salt*
6. *kelp*
7. *lollies from where the humans live*
8. *lollies*
9. *the humans*

On the other hand, sometimes a Participant does not yield much at all in the way of a nominal group. An example of this is taken from text 4:

Always give (material Process) *your friend* (Recipient) *a turn of playing things* (Scope)
(It is) *Like sharing* (Attribute: circumstantial)

The Attribute, *like sharing*, uses an embedded clause as the Head of the nominal group (*like [[sharing]]*), which, when analysed, is found to comprise only a verb form.

At this, the Year 3, end of the development continuum that is under study here, there may be a closer correlation of one group to one functional element than may be evident in higher years. This will be pursued in subsequent sections.

Table 4. 1-30 Nominal groups (Year 3 Narratives)

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	71	7	6	84	45.8	54.2
Head=Thing	67	5	4	76	43.2	49.0
Head≠Thing, elliptical	1		1	2	0.6	1.3
Head≠Thing, Epithet	3	2	1	6	1.9	3.9
Pre-mod + Head only	47	3	11	61	30.3	39.4
Head=Thing	42	2	10	54	27.1	34.8
Head≠Thing, elliptical	1			1	0.6	0.6
Head≠Thing, Epithet			1	1		0.6
Head≠Thing, focus	4	1		5	2.6	3.2
Post-modification	7		3	10	4.5	6.5
with qualifying phrase	2		3	5	1.3	3.2
with qualifying clause	5			5	3.2	3.2
with multiple qualifiers						
Total	125	10	20	155	80.6	100

The overall conclusions from Table 4. 1-30 are that a majority of the nominal groups contain a single function only (84 from 155 nominal groups, or 54.2%) and that a large minority contain a pre-modifying function (61 from 155 nominal groups, or 39%). A small minority contain a post-modifying function (10 from 155 nominal groups, or 6.5%).

Now we will look briefly at the three sections of Table 4. 1-30. Firstly, of the single function nominal groups, by far the most are conventional noun groups, where the Head conflates with Thing (76 from 84, or 90.4%). A few are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet (6 of 84, or 7.1%) and 2 have the Head conflated with an element other than an Epithet (2.4%). Secondly, of the nominal groups consisting of pre-modifier + Head, again by far the most have Head conflated with Thing (54 of 61, or 87%). The next most frequently occurring involves the use of focus (an extended numerative) – (5 of 61, or 10%). The final 2% is accounted for by two more instances where the Head is conflated with other than the Thing, one being an Epithet. Thirdly, in the 6.5% of clauses that

contain a post-modifying element, half (5) contain a qualifying clause and half (5) a qualifying phrase.

Examples of nominal groups appear in Table 4. 1-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the left-most position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 4. 1-31 Examples of nominal groups (Year 3 Narratives)

Total	% Total	Feature	Examples		Notes/type
84	54.5	single function – Head only			
76	49.4	Head=Thing	pronouns (56.6%); common nouns (18.4%); proper nouns (25.0%). (Some multi-words e.g. <i>Bark Vader</i> , <i>light saber</i> & word complexes e.g. <i>fairies and pixies</i> .). (Personal pronouns 53.9%).		
2	1.3	Head≠Thing, elliptical	any <i>in</i> Bubbles didn't have any (4. Lacy)		deictic only
6	3.9	Head≠Thing, Epithet	really sad <i>in</i> She got really sad (4. Lacy)		submodification in Epithet
60	39.0	Pre-mod + Head only			
52	33.8	Head=Thing	SEE TABLE BELOW		
1	0.6	Head≠Thing, elliptical	All <i>in</i> All [[they had]] was an old cow. (2. Babs)		
1	0.6	Head≠Thing, Epithet	a lot more (1. Annie)		Focus Epithet
6	3.9	Head≠Thing, focus	the very end of the sea (1. Annie)		F – perspective; submodification in focus
10	6.5	Post-modification			
5	3.2	with qualifying phrase	with Pre-mod Head=Thing	eatable pearls out of salt (1. Annie)	
5	3.2		with Pre-mod Head=Thing	a mission [[to kill bark vader]] (3. Cain)	non-finite clause as qualifier
			with Pre-mod Head=Thing	a Jedi [[called cat-one-konobi]]. (3. Cain)	finite clause as qualifier
			single function Head≠Thing, Epithet	surprised [[to see // that all the pearls were gone]]. (1. Annie)	non-finite clause as qualifier
0.0	0.0	with multiple qualifiers			
154	100	total			

It may be concluded that simple nominal groups of Head only are more common than those with pre-modifying functions by about one quarter (84:60) and about eight times more common than those with post-modifying elements: development in expanding the nominal group – which we might call ‘amplification’ – begins with adding pre-modifiers, rather than post-modifiers, to the Head.

So, let us look then at the pre-modifying element, especially the one row in Table 4. 1-30 that summarises much and should not be passed over without elaboration. It is the row left undimmed below:

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
single function (Head only)	71	7	6	84	45.8	54.2
<i>(Head=Thing)</i>	67	5	4	76	43.2	49.0
<i>(Head≠Thing, elliptical)</i>	1		1	2	0.6	1.3
<i>(Head≠Thing, Epithet)</i>	3	2	1	6	1.9	3.9
with pre-modifying function	47	3	11	61	30.3	39.4
<i>(Head=Thing)</i>	42	2	10	54	27.1	34.8
<i>(Head≠Thing, elliptical)</i>	1			1	0.6	0.6
<i>(Head≠Thing, Epithet)</i>			1	1		0.6
<i>(Head≠Thing, focus)</i>	4	1		5	2.6	3.2
with post-modifying function	7		3	10	4.5	6.5
<i>with qualifying phrase</i>	2		3	5	1.3	3.2
<i>with qualifying clause</i>	5			5	3.2	3.2
<i>with multiple qualifiers</i>						
Total	125	10	20	155	80.6	100

As explained above, this table has been constructed mainly with the logical, univariate structure of the nominal group in mind. Now we can shift perspective and cast a multivariate eye over the groups, going beyond ‘Thing’ and noticing the experiential structure and the use of different elements contributing to the nominal group network. These elements are Deictic, Post Deictic, Numerative, Epithet, Classifier and Thing. For a full explanation of this system network, see IFG3 p.312.

The highlighted row contains uses of the pre-modifying element in the nominal group where the Head is in phase with the Thing (i.e., in our data, is not elliptical, is not an Epithet and does not involve the use of the extended numerative (IFG3 p.333) known as Focus (DFG p.170); these belong to the rows following and examples have

been included in Table 4. 1-31). The range of configurations of pre-modifying elements was examined across all the texts in the data set and a list compiled of those used. This list of 25 different configurations is presented in Table 4. 1-32, with data and examples for Year 3 Narratives. The configurations are arranged in the table not alphabetically, but so that the sequential nature of the noun group is preserved – the top of the table is heaviest with beginning elements, and the bottom with final.

Table 4. 1-32 Pre-modification in the nominal group (Year 3 Narratives)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing				
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing				
DeicticNumerativeEpithetThing				
DeicticNumerativeThing				
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing				
DeicticEpithetEpithetEpithetThing				
DeicticEpithetEpithetThing	1	1.9	an old rundown house (2. Babs)	
DeicticEpithetThing	9	17.3	an old cow (3. Cain)	the cool game (4. Lacy)
DeicticClassifierClassifierThing				
DeicticClassifierThing	3	5.8	the sea route (1. Annie)	his light saber (3. Cain)
DeicticThing	34	65.4	some money (2. Babs)	a turn (4. Lacy)
Deictic2Thing				
Deictic2ClassifierThing				
NumerativeClassifierThing				
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing				
NumerativeThing	5	5.8	1000 dollars (2. Babs)	2 girls (4. Lacy)
EpithetClassifierThing				
EpithetEpithetThing				
EpithetThing	2	3.8	eatable pearls (1. Annie)	best friends (4. Lacy)
ClassifierClassifierThing				
ClassifierThing				
25 Total	54	100		
Count of different configurations used	6			

It can be seen that the pre-modifying element in Year 3 Narratives is generally not very developed. Of the 25 available patterns, 6 were used (24%). The most used configuration is, unsurprisingly, DeicticThing (65.4%). Next most common uses the addition of a single Epithet – DeicticEpithetThing (17.3%). There are 3 instances of

NumerativeThing (5.8%) and of ClassifierThing (5.8%). Two instances use an Epithet without the deixis, EpithetThing (3.8%), and there is 1 instance only of multiple Epithets – DeicticEpithetEpithetThing (1.9%). It is expected that this comparable table (numbered 1-30) will vary significantly across the Year groups.

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 12 of the 54 (23%) involve the use of Epithets, one instance using two. Three nominal groups use a Classifier (5.8%), all of which are the expected DeicticClassifierThing sequence.

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres, where the field often involves information about general phenomena rather than personal or specific phenomena or entities. In the case of the Year 3 Narratives, 7 (or 9.6%) noun groups do not use a deictic.

There are any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

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4.2 Findings: Year 4 Narratives

4.2.1 Whole text information (Year 4 Narratives)

4.2.1.1 Text 5. Stuck Together, by Ann

Table 4. 2-1 Text 5. Stuck Together (Ann, 4/N)

5. Stuck Together (Ann, 4/N)	Stages
Sarah, Ben and Tom go to the same school. They are all ten year olds. They have completely different personalities and ... they are enemys[sic]. Their mothers are forever saying "stop that nonsense[sic] we're best friends so you should be too." "They always want to play the so called 'Footy'. "She always wants to re-apply her make-up even though she already looks like a clown". " Hey don't be mean a girl can never have too much make-up". "In your situation yes." "Cut that out all three of you."	Orientation
Our story starts when their mum's decided to take them out to Mullet Creek to make friends. When Sarah, Ben and Tom arrived they were moaning like crazy. When Sarah spotted these flowers they(that) looked like pigs, she smelled one and felt a thrilling sensation. She was running to her mum to tell her how fantastic the pigweed flowers were when she bumped into Ben and Tom. "Get out of the way, you ruined our footy game." "Well I'm sorry." Sarah went to get away from them when... she couldn't. It was like she was superglued to Tom and Ben. "Go on what are you waiting for" said Ben nastily[sic] "I can't, I can't move" "WHAT" Tom said in horror of being glued to his enemy forever. "How about we go tell mum" "the sooner the better."	Complication
Their mothers told them that the only way to be split was to become friends. The kids were not happy no siree. They eventually became BFF's and got split and stayed friends. To this very day, very, hour, very minute and second they are friends still!	Resolution
The lesson in this story is that you might think that people are TOTAL FREAKS but in the end they turn out to be pretty cool!	Coda

Table 4. 2-2 Text 5. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
30	14	16	51	4	1	139	293	2.8	5.7

4.2.1.2 Text 6. The New Kid, by Janet

Table 4. 2-3 Text 6. The New Kid (Janet, 4/N)

6. The New Kid (Janet, 4/N)	Stages
<p>On the 31st of January Sarah and Ben were walking to St Johns Primary School Dapto. It was the first day back after the six week brake of summer holidays As they were walking Ben was telling Sarah about his trip to China in the holidays. Ben and Sarah were two popular kids and always and I mean always got away with everything.</p> <p>When Ben and Sarah walked throw the gate all the girls came up to Ben and all the boys came up to Sarah. Soon the bell rang and all the kids ran to their lines. After prayer all the kids walked to there classes.</p> <p>When Sarah and Ben walked into there classroom they sat next to each other. When the teacher Mrs Forbes walked in she said to the children "God morning Four Green, may God bless you." The children then replied "Good morning may God bless you Everyone then grabbed a book from the bookshelf and started reading</p>	Orientation
<p>then the principal came in and said "Hello year four you have a new child and his name is Tom. He is from South Africa and he is also a straight A student". When you look at Sarah and Ben's marks they have E's, E's and C.</p> <p>Ben and Sarah were very unhappy their faces went red and they had big red cheeks. They said to each other "This has to be a joke". Soon enough the day was over it was dark and then it was light the second day started. When Sarah and Ben walked through the gate no one came up to them every one was with the new kid Tom.</p>	Complication
<p>Ben and Sarah went up to the new () and pulled him over to the gate. Ben then said, "Hey look what is your problem we have no friends and now we are not popular." Tom started explanning that he is not popular It was just is birthday party and he was giving out invertations. After that he said "I don't have any friends what are you talking about." "Your our friends." so the ten year old children walked away and were best friends.</p>	Resolution

Table 4. 2-4 Text 6. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
31	9	22	57	0	0	181	347	3.2	6.1

4.2.1.3 Text 7. The Genius Ben, by Nobby

Table 4. 2-5 Text 7. The Genius Ben (Nobby, 4/N)

7. The Genius Ben (Nobby, 4/N)	Stages
<p>The clouds were huddled together. Hail was pounding on the roof of every house in Dapto. All the children were hurrying to school from their warm, cosy homes. Three friends called Sarah, Ben and Tom were at Mullet Creek. Sarah didn't have much[sic] friends so she hanged out with Ben and Tom. Ben was very good at finding things and people called him "The Genius Ben." Tom was very funny, he could make up jokes in the blink of an eye. Tom had his favourite toy. The 10 year-olds then ran off to school. When they got to school the time was nine-thirty. The schools[sic] name was St. Johns. They had to go to the office so they hurried there. The people at the office were angry, but in a nice tone said to wait. Sarah, Ben and Tom sat down in some chairs. Tom searched his bag for his toy.</p>	Orientation
<p>"It's gone!" said Tom in shock, "IT IS GONE!"</p> <p>"How?" said Sarah and Ben at the same time.</p> <p>"I think I left it at Mullet Creek," yelled Tom with a sad look in his eyes, "I'm gonna be killed by mum, it cost a fortune."</p>	Complication
<p>"Don't worry Tom, the genius Ben will find it!" said Ben in a heroic voice.</p> <p>"Showoff." muttered Sarah.</p> <p>After the day of school the three friends went to Mullet Creek. Sarah searched everywhere but couldn't find it. Tom looked everywhere but still didn't find it. Ben looked in one place and didn't find it.</p> <p>"Where were you when you had your toy?" asked Ben Tom pointed in the opposite direction. Ben looked and found it in poison ivy.</p> <p>"I don't even care if I get detention." said Tom. The others groaned.</p>	Resolution
<p>Tom learnt that always check before you leave.</p>	Coda

Table 4. 2-6 Text 7. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
33	15	18	57	2	0	158	294	2.8	5.2

4.2.1.4 Text 8. The Mysterious Kidnapper, by Nola

Table 4. 2-7 Text 8. The Mysterious Kidnapper (Nola, 4/N)

8. The Mysterious Kidnapper (Nola, 4/N)	Stages
<p>One cloudy afternoon Sarah and Tom were walking along the damp footpath when they bumped into Ben. Ben was running and jumping pretending he was in the olympics for hurdles, then when he had reached the corner he put out his arms as if he had broken the blue ribbon for victory. "Oh boy, Ben's gone nuts again," Sarah sighed. Ben was not good at any sports but he liked to imagine he was. He was more on the smart side. Then there was Sarah who was a tomboy and lived with a very rich family, and Tom well, he was like an athlete and he got all of the credit. Sarah always wore a beautiful diamond around her neck on a piece of string which represented her family.</p>	Orientation
<p>"Hey Ben," said Tom. "Are you coming with Sarah and I to the train station tonight? We're going to visit my uncle in Kiama." "Yeah, OK," replied Ben. Ben, Tom and Sarah are all 10 years old and are best friends. They were on their way home when Tom said, "Hey guys, have you heard about the kidnapper. He kidnapps[sic] all these kids for no reason." "No idea," replied Ben. After a few hours Tom's mum dropped them off at the train station. It was so quiet.</p> <p>Then, two arms out of a bush grabbed Sarah and covered her mouth. It was the kidnapper! Why did he want Sarah? The man carried Sarah on to the train track where five other kids were. They were all lined up tied on a chain with their lips taped together. Soon enough Sarah was sitting on the track herself. The kidnapper was all dressed in black with a black mask on.</p>	Complication
<p>Meanwhile, Tom and Ben were still walking and when they got to the train track they noticed Sarah and five other kids on the track. The kidnapper was just about to grab the precios[sic] diamond off Sarahs[sic] necklace when suddenly Ben screamed, "Get your hands off her!"</p> <p>Tom quickly ran down the stairs and found a long peice[sic] of string. He tied it around two poles while Ben got his slingshot and hit the kidnapper in the head with a rock. This made him start walking everywhere and towards the string! He tripped over the string and was lying on the floor knockedout[sic]. Ben untied all of the kids on the track and called the police.</p> <p>They took the kidnapper to jail and everyone was safe.</p>	Resolution

Table 4. 2-8 Text 8. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
34	11	23	67	0	0	199	410	3.0	6.1

4.2.2 Sentence-level information (Year 4 Narratives)

Texts 5-8 constitute the four Year 4 Narrative texts. An overview of this text-group appears in Table 4. 2-9.

Table 4. 2-9 Overview (Year 4 Narratives)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
5	30	14	16	51	4	1	139	293	2.7	5.7
6	31	9	22	57	0	0	181	347	3.2	6.1
7	33	15	18	57	2	0	158	294	2.8	5.2
8	34	11	23	67	0	0	199	410	3.0	6.1
Part B										
T	128	49	79	232	6	1	677	1344		
Av	32	12.25	19.75	58	1.5	0.25	169.25	336	2.9	5.8

Texts 5-8 are the Year 4 Narratives. Sentence level characteristics of each text are set out in Table 4. 2-9, summarised in the final 2 rows. From this lower section of the table, it can be seen that the Year 4 Narrative data is contained in 128 sentences, comprised of 49 clause simplexes (38.3%) and 79 clause complexes (61.7%). Altogether there are 232 ranking clauses. Of the 232 clauses, 7 contain embedded clauses in some form (Columns F + G) (3.0%) while 225 (97.0%) do not (Columns E – (F + G)). Of the clauses that contain embedding, 6 contain clause-simplexes and 1 contains a clause-complex, a ratio of 6 to 1. The ratio of total words (1344) to lexical items (677) is almost 2:1 and the average lexical density across the 4 texts (clauses÷lexical items) is 2.9. The mean length of each clause is 5.8 words.

All texts utilise fewer simplexes than complexes. The characterisation of this group would be that the use of clause complexes exceeds the use of clause simplexes, with the ratio being about 1.6:1.

4.2.2.1 Sentence constituents (Year 4 Narratives)

Table 4. 2-10 Sentences and clauses (Year 4 Narratives)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no explicit dependency (simplex)	With paratactic dependency (complex)	With hypotactic dependency (complex)	With dependency of both types (complex)	Total nexuses
1	49	38.3	49				
2	56	43.8		41	15		56
3	21	16.4		2	5	14	42
4	2	1.6		1	1		6
5							
6							
7							
8							
Total	128	100	49	44	21	14	104
%			38.3	42.3	20.2	13.5	

In Table 4. 2-9, we see that the 128 sentences in the Year 4 Narratives are made up of 49 clause simplexes and 79 clause complexes. Table 4. 2-10 analyses these sentence constituents. A significant proportion, 49 of 128 sentences, or 38.3%, contain a single clause (Columns A to D). Interestingly, in Year 4 Narratives the most common number of clauses per sentence is not one, but two; there are 56 of these, comprising 43.8% of the total sentences (Column B). Together, one- and two-clause sentences make up the bulk (82.1%) of the sentences (Column C); only 21 sentences contain three clauses and only 2 sentences contain four clauses, the maximum number of clauses per sentence in this text-group (Column B). Put another way, the 49 clause simplexes represent 38.3% of the total clauses, leaving 61.7% of clauses involved in a complex. The clause complexes are of varying length: 44% are 2 clauses long, 16% are 3 clauses long and 2% are 4 clauses long.

61.7% of sentences are clause complexes. In these clauses complexes, there are about twice as many paratactic as hypotactic, 44 to 21 (Columns E and F); a smaller number again, 14, contain both paratactic and hypotactic relations. Only 3-clause sentences – and no 4-clause sentences – have relations of both types (Column G). In the Year 4 Narratives, paratactic relations predominate in the shorter sentences, with a hint of straying to 4-clause sentences (1 instance only). In this data set, nexuses total 104 (Column H).

Table 4. 2-11 Dependency relations between clauses (Year 4 Narratives)

Nexus type	Count	% of relation type
Paratactic	62	59.6
Hypotactic	42	40.4
Total	104	

Table 4. 2-11 tallies the number and percentages of logical relations between clauses, taking into account clauses that contain both paratactic and hypotactic relations, and dividing the clauses into those two classes. Paratactic clauses dominate, with there being about half as many again paratactic clause as hypotactic; to express this another way, there are about 2/3 as many hypotactic as paratactic clauses.

Table 4. 2-12 shows usage of the logico-semantic relations, expansion and projection.

Table 4. 2-12 Taxis/logico-semantic relations in clause complexes (Year 4 Narratives)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification	3			
		description		6	6	
	extension	addition: additive	29	2		2
		addition: adversative	4			
		variation				
		alternation				
	enhancement	temporal	1	18	17	1
		spatial				
		manner		1	1	
		cause	3	5	2	3
		conditional		2	2	
projection	report	locution	22	3	2	1
		idea		5	4	1
		Total	62	42	34	8

Column D of Table 4. 2-12 shows the 62 instances of parataxis. The complexes are made through all types of *expansion* – *elaboration*: *clarification* (3), through *extension*: *addition* (29 additive; 4 adversative) and through *enhancement*: *temporal* (1), *:cause* (3). There are 22 instances of *projection*: *locution* (direct speech).

Column E shows the 42 instances of hypotaxis. As with parataxis, all types of *expansion* are utilised: *elaboration: description* (6), *extension: addition* (2), and in *enhancement*, four sub-types – *:temporal* (18), *:manner* (1), *:cause* (4) and *:conditional* (1). There are 3 instances of *projection: locution* (reported speech) and 5 instances of *projection: idea* (reported thought). These 42 hypotactic clause complexes employ dependent clauses of both finite (34) and non-finite forms (8).

Having concentrated to this point on the make-up of sentences in terms of ranking clauses, the following group of tables transition focus to the occurrences and placements of embedded clauses.

Table 4. 2-13 Dispersion and count of ranking clauses (Year 4 Narratives)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	49	49	3	46
2	56	112	3	109
3	21	63	1	62
4	2	8		8
5				
6				
7				
8				
Total	128	232	7	225
%			3.0	97.0
Average per text	32	58	1.75	56.25

Moving from ranking clauses to embedded clauses, Table 4. 2-13 shows that, in sentences of any length, the number of clauses that do not contain embedding substantially exceed the number that do. Over the text-group as a whole, 225 clauses, or 97%, do not contain embedding; 7 (or 3%) do.

It is that 7 (or 3%) of ranking clauses that contain embedding that we are now interested in. We now extend the analysis of Table 4. 2-13, explicating, in the main, Column D of that table. Table 4. 2-14 tallies the clauses that contain the embeddings (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the functional constituent element of its host clause

(Columns D and E), tallying the embedded instances themselves. Examples are in Column F.

Table 4. 2-14 Embedding in ranking clauses (Year 4 Narratives)

A	B	C	D	E	F
Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
Embedded clause/s as Qualifier in a nominal group	3	[[]]Q	2	1	Three friends [[called Sarah, Ben and Tom]] were at Mullet Creek. (7. Nobby) (Participant)
		[[[]]Q]Q			
		multiQ			
		[[//]Q			
		[[// //]Q			
		[[// // //]Q			
Embedded clause/s as a whole nominal group	2	[[]]clH	2		... to tell her [[how fantastic the pigweed flowers were]] (5. Anne)
		[[[]]Q]clH			
		multiclH			
		[[//]clH			
	1	[[// //]clH	1		The lesson in this story is [[that you might think // that people are TOTAL FREAKS // but in the end they turn out to be pretty cool!]] (5. Anne)
		[[// // //]clH			
		[[// []]Q]clH			
		[[<<>>]clH			
Both	1	[[]]Q mixed [[]]clH	2 (1x[[]]Q) (1x[[]]clH)		... that the only way [[to be split]] was [[to become friends]] . (5. Anne)
	7	Totals	7	1	
Summary					
Qualifier in a nominal group	4	50%	3	1	
Whole nominal group	4	50%	4		
Totals	8	100%	7	1	
			87.5%	12.5%	

In the Year 4 Narratives, 7 of 232 clauses contain embedded clauses. Because 1 of the clauses contains 2 separate embeddings (both participants), shown in the *Both* row of the table, the total number of embeddings in ranking clauses in this set of texts is 8. Table 4. 2-14 shows 4 instances of the embedded clause acting as a Qualifier in a nominal group, denoted here with a final Q (3 from the top row and 1 from the *Both* row). Embedding also occurs 4 times where the clause acts as the

whole nominal group, denoted with a final clH. (Again, 1 is in the *Both* row). As may be seen from Columns D and E, embedding in/as Circumstances is again rare, occurring only once, whereas embedding in/as Participants is much more common, occurring 7 times.

Table 4. 2-15 below essentially provides a different way of looking at the data in Table 4. 2-14, foregrounding the complexity of the embedding, with some additional finer detail of layers of embedding.

Table 4. 2-15 Embedded clauses (Year 4 Narratives)

A	B	C	D
Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
7	simplexes		7
5	[[]]		5
2	[[]]c (multiple in one clause)	that the only way [[to be split]] was [[to become friends]]. (5. Anne)	2
	[[]]el (multiple in one element)		
	[[e]] (embedded in a simplex)		
	e[[]]Q (form of [[e]])		
1	complexes		3
	[[[/		
	/ /]]		
1	[[[/	The lesson in this story is [[that you might think	1
	/ /	// that people are TOTAL FREAKS	1
	/ /]]	// but in the end they turn out to be pretty cool!]]	1
	[[[/		
	/ / [[
]]]]		
	[[<<>>]]		
	incl		
8	Total		10
Summary of complexity of embedded clauses			
simplexes	7	87.5%	Average per text: 1.75
complexes	1	12.5%	Average per text: 0.25
Totals	8	100%	Average per text: 2

To look at the embedded clauses in terms of their complexity, we turn to Table 4. 2-15. Seven of the embedded clauses are simplexes and only 1 is a clause complex, accounting for the total of 8 clauses with embeddings (Column A). Of the 7

simplexes, 2 are present in one clause ("*the only way [[to be split]] was [[to become friends]]* ") (Column B). The sole clause complex contains 3 clauses ("*The lesson in this story is [[that you might think // people are TOTAL FREAKS // but in the end they turn out to be pretty cool!]]*"). Examples of each construction are given in Column C. Column D sets out the number of individual clauses embedded for each construction, and then totals these over the simplexes and complexes; the grand total appears in the bottom row of Column D and, for this text-group, amounts to 10.

Table 4. 2-16 Detail of use of embedded clauses (Year 4 Narratives)

Table 4. 2-10 Detail of use of embedded clauses (Fear 4 Narratives)				
A	B	C	D	
Placement shorthand	How embedding manifests	Simplex/ individual clause count	Examples	
in_ngQ_(P)	as Qualifier in a nominal group in a Participant	2	... that the only way [[to be split]] was [[to become friends]] . (5. Anne)	token
			Three friends [[called Sarah, Ben and Tom]] were at Mullet Creek. (7. Nobby)	carrier
in_ngQ_(C)				
in_ngQ_(e)_(P)	as Qualifier in a nominal adjectival grp in a Participant	1	Ben was very good [at [[finding things]] (7. Nobby)	attribute
in_ngQ_(e)_(C)	as Qualifier in a nominal adjectival grp in a Circumstance	1	Tom said in horror [of [[being glued to his enemy forever]]]. (5. Anne)	manner: quality
clH_(P)	as whole nominal group in a Participant 3+(1x3)	6	... to tell her [[how fantastic the pigweed flowers were]] (5. Anne)	verbiage
			It was like she [[was superglued to Tom and Ben]] . (5. Anne)	attribute (cir:att)
			... that the only way [[to be split]] was [[to become friends]] . (5. Anne)	value
			The lesson in this story is [[that you might think // that people are TOTAL FREAKS // but in the end they turn out to be pretty cool!]] (5. Anne)	value
clH_(C)				
in_XX_(P)	in a group complex that is Participant			
in_XX_(C)				
	Total	10		
Summary of function of embedding and as Participant or Circumstance				
as Qualifier in a nominal group in a Participant			3	
as whole nominal group in a Participant			6	
as Qualifier in a nominal group in a Circumstance			1	
as whole nominal group in a Circumstance				
Total			10	

A final perspective on the embedded clauses is provided by Table 4. 2-16 which reveals how the embedding is manifested (Column B; shorthand in Column A) for

each of the 10 instances of embedded clauses in Year 4 Narratives. From Column C it may be seen the majority (60%) present as *whole nominal group in a Participant* (clH_(P)); next most frequently as *Qualifier in a nominal group in a Participant* (in_ngQ_(P)) at a rate of 20%; finally, each making up 10% of the cases, are in_ngQ_(e)_(P) and in_ngQ_(e)_(C). (Note, there are four other manifestations identified which do not occur in Year 4 Narratives.) Column D gives examples.

4.2.2.2 General description (Year 4 Narratives)

The Year 4 Narratives have been characterised according to average length in terms of sentences (32) and individual ranking clauses (58) and by a simple word average (336) which has been divided into lexical (169) and, by calculation, grammatical (167) items. Lexical density has been calculated (2.9). The ranking clauses have been further described by average usage of clause-simplexes (12.25) and clause-complexes (19.75). The explicit interdependency relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 59.6% to 40.4%. Logico-semantic relations in clause-complexes are identified.

Embedded clause usage has been tallied from two perspectives: (i) number of clauses containing embedding and (ii) number of embedded clauses. The average per text for (i) is (1.75): clauses containing embedded simplexes (1.5); those with clause complexes (0.25). The average per text for (ii) is (2): embedded simplexes (1.75) and embedded complexes (0.25). When employed, embedded clauses are used both as qualifiers in a nominal group (50%) and as Whole nominal groups (40%). They are involved in (or as) Participants (87.5%) and (or as) Circumstances (12.5%).

In summary, in Table 4. 2-9, some general, sentence level, features of the Year 4 Narratives are gathered together and summarised. The rest of the tables in Section 4.2.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of analysis: a look at the Experiential elements of the texts (Section 4.2.3), looking first at the functional elements in a clause (Processes, 4.2.3.1;

Participants, 4.2.3.2; Circumstances, 4.2.3.3), and then at the breakdown of the nominal group (4.2.3.4).

Now we turn to look more closely at the functional constituents of the sentences/clauses.

4.2.3 Transitivity (Year 4 Narratives)

4.2.3.1 Processes (Year 4 Narratives)

4.2.3.1.1 Functional types of Processes (Year 4 Narratives)

Table 4. 2-17 Process types (Year 4 Narratives)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	110	3	113	49.1	48.3
mental	15	1	16	6.7	6.8
mental: cognition	6	1	7	2.7	3.0
mental: desideration	1		1	0.4	0.4
mental: emotion	2		2	0.9	0.9
mental: perception	6		6	2.7	2.6
relational	67	6	73	29.9	31.2
R attrib: intens	46	5	51	20.5	21.8
R attrib: circ	1		1	0.4	0.4
R attrib: poss	9		9	4.0	3.8
R id: intens	10	1	11	4.9	4.7
R id: circ	1		1	0.4	0.4
R id: poss					
Subtotal(principal)	193	10	203	85.7	86.8
Subsidiary					
behavioural	1		1	0.4	0.4
verbal	30		30	13.4	12.8
existential	1		1	0.4	0.4
Subtotal(subsidiary)	32		32	14.3	13.7
Total	224	10	234	100	100
%	95.7	4.3	100		
Count of different Process types used	5	3	5		

We now turn to Transitivity and Process types, as set out in Table 4. 2-17. To take in the ‘big picture’ first, it is useful to start at the second and third last rows. Here we see there are 224 ranking clauses and 10 non-ranking clauses, making a total of 234;

in terms of proportions, ranking clauses make up 95.7% of the clauses and non-ranking only 4.3%.

Now we consider the broad categories of principal and subsidiary Processes. Principal Processes dominate, making up 87% (to the nearest percent) whether either ranking clauses alone or all clauses are considered; subsidiary clauses constitute the remainder, 13%.

Of the principal ranking Processes, material are most common (110), then relational (67), then mental (15). Of the subsidiary Processes in the bottom portion of Table 4. 2-17, verbal Processes dominate (30). There is 1 existential process and 1 behavioural process.

The non-ranking clauses are relatively few (Column C) and are only of the principal type. Compared to the ranking clauses, the order of the first two are reversed: relational (6), material (3), mental (1), but the totals for all the clauses together (Columns D and F) follows the pattern of the ranking clauses: material first (113 or 48%), then relational (73 or 31%), finally mental (16 or 7%). Within the relational Processes in ranking clauses, *attributive intensive processes* occur most often, 45 times; next, with about equal frequencies among themselves, *identifying intensive* (11) and *attributive possessive* (9); and only 1 each of *identifying circumstantial* and *attributive circumstantial* processes. A similar pattern holds for relational Processes in the non-ranking clauses, with *attributive intensive* occurring most often (5) and the only other example being *identifying intensive* (1). With respect to mental Processes, the order of frequency of appearance in ranking clauses is *cognition* (6), *perception* (6), *emotion* (2) and *desideration* (1); in non-ranking clauses, the sole example is *cognition*.

Across clause types, the frequency of use of types of processes is:

material	113	(48.3%)
relational	73	(31.2%)
verbal	30	(12.8%)
mental	16	(6.8%)
existential	1	(0.4%)
behavioural	1	(0.4%)
Total	234	(100%)

Year 4 students use the 6 types of Processes in the ranking clauses in their Narratives, and only 3 in their embedded clauses (omitting the subsidiary types, behavioural, verbal and existential).

4.2.3.1.2 Realisation – form of Processes (Year 4 Narratives)

Table 4. 2-18 Process form (Year 4 Narratives)

Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
A Complexity:					
Verbal group simplexes	204	8	212	91.1	90.6
Verbal group complexes	20	2	22	8.9	9.4
Total(sentences)	224	10	234	100	100
B Other features:					
Phrasal verbs	25		25		
Modal finites	15		15		
Modal adjuncts	15		15		

The general form of the Processes is given in Table 4. 2-18. With respect to complexity, the majority are simplexes constituting 91.1% of the ranking clauses and 90.6% of the total clauses. With respect to other features, phrasal verbs are used 25 times. Modal finites and modal adjuncts are used 15 times each.

Table 4. 2-19 Verb complexing summary (Year 4 Narratives)

Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis	2		2	10.0	9.1
expansion elaboration					
expansion extension	2		2	10.0	9.1
expansion enhancement					
projection not applicable					
Hypotaxis	17	2	19	85.0	86.4
expansion elaboration	9	2	11	45.0	50.0
expansion extension	5		5	25.0	22.7
expansion enhancement					
projection	3		3	15.0	13.6
Multiple complexing	1		1	5.0	4.5
Total	20	2	22	100	100

Table 4. 2-19 gives further detail on the 22 verbal group complexes tallied in the previous Table. The two instances of distinct parataxis occur in ranking clauses, as *expansion: extension*, and constitutes 9.1% of the examples of verbal group complexing. There is one case of multiple complexing, within ranking clauses, constituting 4.5% of the examples. The large majority (85% of ranking and 86.4% of total clauses) involve hypotaxis. Most of these (17) occur in ranking clauses, a few (2) occur in non-ranking clauses. Within both types of clauses, the most common form of hypotaxis is *expansion: elaboration* (9 ranking, 2 non-ranking). The non-ranking clauses contain only this type of hypotaxis. The ranking clauses contain, in addition, *expansion: extension* (5) and *projection* (3).

Table 4. 2-20 Instances of complexing in the verb (Year 4 Narratives)

Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis	2			
expansion elaboration				
expansion extension	2	"How about we go tell mum" (8. Nola)	verbal	and or
		Ben was running and jumping , (8. Nola)	material	
expansion enhancement				
projection				
Hypotaxis	17			
expansion elaboration	9	Go on {go on moving away.. Continue getting out of the way} (5. Anne)	material	general: keep
		they turn out to be pretty cool! (5. Anne)	R attrib: intens[[]]	gen elab prove[[]]
		and started reading (6. Janet)	behavioural	general: start
		Tom started explaining (6. Janet)	verbal	
		The kidnapper was just about to grab the precious diamond off Sarah's necklace (8. Nola)	material	
		They eventually became BFF's and got split (5. Anne)	material	passive
		"I'm gonna be killed by mum, (7. Nobby)	material	
		They were all lined up // tied on a chain // with their lips taped together. {and ... their lips were..} (8. Nola)	material	
		that the only way [[to be split]] (5. Anne)	material[[]]	
expansion extension	5	a girl can never have too much make-up". (5. Anne)	R attrib: poss	general: can=> modality
		when... she couldn't . {move} (5. Anne)	material	
		"I can't , {I can't go on} (5. Anne)	material	
		I can't move " (5. Anne)	material	
		Sarah went to get away from them (5. Anne)	material	general: try
expansion enhancement				
projection	3	They always want to play the so called 'Footy'. (5. Anne)	material	proposal: idea want
		"She always wants to re-apply her make-up (5. Anne)	material	
		but he liked to imagine that he was (8. Nola)	mental: cognition	
Multiple complexing	1	This made him start walking everywhere and towards the string! (8. Nola)	material	HX: ext: caus mod agency hi / HX: elab general: start
Total	20			

All instances of complexing in this text-group are displayed in Table 4. 2-20. It is interesting to observe the expansions that go on in quotations – perhaps indicating that representation of spoken speech is easier to write than constructing considered text.

4.2.3.2 Participants (Year 4 Narratives)

4.2.3.2.1 Functional types of Participants (Year 4 Narratives)

Participant roles are set out in Table 4. 2-21. The numbers in ranking clauses are set out in Column C, non-ranking clauses in Column D, and the total in Column F. Column C as a ratio with the total ranking clauses appears in Column F and as a ratio with the total clauses, ranking and non-ranking, appears in Column G.

Table 4. 2-21 Participant roles (Year 4 Narratives)

A	B	C	D	E	F	G
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material <i>oblique</i>	actor	85		85	26.3	25.4
	goal	49	1	50	15.2	14.9
	recipient	2		2	0.6	0.6
	client					
	scope	4		4	1.2	1.2
	initiator	1		1	0.3	0.3
	attribute: depictive					
	attribute: resultative					
mental <i>oblique</i>	senser	12	1	13	3.7	3.9
	phenom	7		7	2.2	2.1
	inducer					
relational: attrib	carrier	51	4	55	15.8	16.4
	attribute	55	5	60	17.0	17.9
R attrib: intens	carrier	30	4	34	9.3	10.1
	attribute	34	5	39	10.5	11.6
R attrib: circ	carrier (cir:att)	11		11	3.4	3.3
	attribute (cir:att)	11		11	3.4	3.3
	carrier (cir:pr)	1		1	0.3	0.3
	attribute (cir:pr)	1		1	0.3	0.3
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	9		9	2.8	2.7
	attribute: possessed(poss:pr/carr:p'r)	9		9	2.8	2.7
	carrier: possessed(poss:pr/carr:p'd)					
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary					
relational: ident	token	11	1	12	3.4	3.6
	value	11		11	3.4	3.3
R id: intens	token	10	1	11	3.1	3.3
	value	10		10	3.1	3.0
R id: circ	token(circ)	1		1	0.3	0.3
	value(circ)	1		1	0.3	0.3
R id: poss	token(poss)					
	value(poss)					
<i>oblique</i>	assigner	1		1	0.3	0.3
behavioural	behavior					

oblique	behaviour					
	phenomenon(b)					
verbal	sayer	26		26	8.0	7.8
	receiver	5		5	1.5	1.5
oblique	verbiage	2		2	0.6	0.6
	target					
existential	existent	1		1	0.3	0.3
	Total	323	12	335	100	100
	Count of different Participant roles used	16	5	16		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, recipient, attribute; initiator	141	1	142	43.7	42.4
mental	sensor, phenomenon; inducer	19	1	20	5.9	6.0
relational		129	10	139	39.9	41.5
attribution identification	carrier, attribute, beneficiary, attributor	106	9	115	32.8	34.3
	token, value; assigner	23	1	24	7.1	7.2
behavioural	behaviour; phenomenon(b)					
verbal	sayer, receiver; verbiage, target	33		33	10.2	9.9
existential	existent	1		1	0.3	0.3
		323	12	335	100	100

The use of Participants must reflect the type of Process; both are gathered here in summary of Table 4. 2-21 and presented in descending order of (Process) use:

	Processes %	Participants %
material	48.3	42.4
relational	31.2	41.5
verbal	12.8	9.9
mental	6.8	6.0
existential	0.4	0.3
behavioural	0.4	0
Total	100	100

In total, there are 323 Participants in ranking clauses and 12 in non-ranking clause, making a total of 335 Participants. These are spread among 16 Participant roles.

Table 4. 2-22 collates information about the use of the indirectly involved Participants that are counted in Table 4. 2-21.

Table 4. 2-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 4 Narratives)

the Process (Fear + Narratives)							
A	B			C	D	E	
Process type	Associated Participant roles available			Direct used	Oblique used	Total used	
	(i) direct	(ii) oblique	Total				
material	2	6	8	2	3	5	
mental	2	1	3	2		2	
relational	4	3	7	4	1	5	
attributive	2	2	4	2		2	
identifying	2	1	3	2	1	3	
behavioural	1	2	3				
verbal	2	2	4	2	1	3	
existential	1	0	1	1	0	1	
Total	12	14	26	11	5	16	

In Table 4. 2-22, comparing Column C with Column B(i) shows that there is only one directly-related Participant role not used in the Year 4 Narratives (no behavioural Processes are used). The directly involved Participant roles account for 11 of the 16 that are taken up in the Year 4 Narratives. The remaining 5 roles are used as per Column D, which shows that the material clauses employ 3 Participants that are obliquely involved, and in both relational and verbal clauses there is the use of one oblique Participant role.

Marrying this information with that in the previous table, we can be more specific. material clauses employ 5 of the 8 available Participant roles, 3 of which are obliquely related to the Process: recipient (2), scope (4) and initiator (1). One relational identifying clause makes use of the all Participant roles. Verbal clauses employ 3 of the 4 available roles, including verbiage (2).

4.2.3.2.2 Realisation – form of Participants (Year 4 Narratives)

For information on the forms taken by the Participants listed in Table 4. 2-21, see Table 4. 2-23.

Table 4. 2-23 Summary of forms taken by Participants (Year 4 Narratives)

Participants in ranking clauses					Participants in embedded clauses					Both
nominal group			prepositional phrase	adverbial group	nominal group			prepositional phrase	adverbial group	Total
noun group	adjectival group	clause			noun group	adjectival group	clause			
289	17	3	11	3	9	3				335
309					12					
323					12					

By far the majority appear in noun groups, whether in ranking clauses (289) or non-ranking clauses (9). In both clause types the next most common form is adjectival groups – 17 in ranking clauses, 3 in non-ranking. The other forms only appear in ranking clauses and are, in descending order of frequency, prepositional phrase (11), clause (3) and adverbial group (3).

Information in Table 4. 2-23 is expanded in Table 4. 2-24.

Table 4. 2-24 Detail of forms taken by Participants (Year 4 Narratives)

A	B	C	D	E	F	G	H	I	J	K	L		
	Participants in ranking clauses					Participants in embedded clauses					Both		
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total		
	noun group	adj. group	clause			noun group	adj. group	clause					
Nominal groups													
One group	286	17	3	10		9	3				328		
Single function (Head only)	198	14	3	4		7	2				228		
Pre-mod + Head (no post-mod)	82			6		2					90		
Post-mod (may be pre-mod)	6	3					1				10		
Two+ groups	3			1								4	
Adverbial groups													
One group					3						3		
Head only					3						3		
Pre-mod + Head (no Post-mod)													
Post-mod (may be pre-mod)													
Two+ groups													
Summary of forms taken by Participants													
Noun groups	289					9					298		
Adj. nominal groups						17						3	20
Clauses											3		3
Prepositional phrases												11	11
Adverbial groups												3	3
Total all	323					12					335		

Looking at the Participants consisting of or containing one nominal group, a large majority contains a Head only (228 of 328 or 69.5%). For example, within the noun groups there are 198 in ranking clauses, 7 in embedded. Next is usage of the nominal groups that contain a pre-modifying function (90 of 328 or 27.4%), although a variant concerns noun groups in prepositional phrases – there are more cases with pre-modifying function (6) than with single function (4). Nominal groups with a post-modifying function occur 10 times (or 3.1%). Usage of more than one nominal group in a nominal group complex as Participant occurs 4 times, 3 times in a ranking clause and once in an embedded clause (altogether representing 1.2% of the total participants). There are 3 adverbial groups used as Participants, in ranking clauses.

Examples from Table 4. 2-25 are presented in Table 4. 2-25. Included are representative examples of each form.

Table 4. 2-25 Examples of forms taken by Participants (Year 4 Narratives)

Function feature	Form	Example	Participant roles	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	noun group	invitations (6. Janet)	goal	
	noun group	they (5. Anne),	actor	
	adj group	angry (7. Nobby)	attribute	
	clause	[[how fantastic the pigweed flowers were]] (5. Anne)	verbiage	macro-thing: Wh-clause
	prep phrase	like [[she was superglued to Tom and Ben]]. (5. Anne)	attribute (cir:att)	
	clause	[[to become friends]]. (5. Anne)	value	
	clause complex	[[that you might think // that people are TOTAL FREAKS // but in the end they turn out to be pretty cool!]] (5. Anne)	value	
with Pre-mod function	noun group	the pigweed flowers (5. Anne)	carrier	
	noun group	big red cheeks (6. Janet)	attribute (possessed)	
	noun group	all the girls (6. Janet)	actor	Focus – selecting
	noun group	a long peice of string. (8. Nola)	goal	Focus – partitive
	prep phrase	(He was) like an athlete	attribute	
With Post- mod function	noun group	The lesson in this story (5. Anne)	token	Qualifier – phrase
	noun group	The people at the office (7. Nobby)	carrier	Qualifier – phrase
	adj group	good at any sports (8. Nola)	attribute	Qualifier –

Function feature	Form	Example	Participant roles	Note
				phrase
	noun group	my uncle in Kiama.” (8. Nola)	goal	Qualifier – phrase
	adj group	dressed [in black with a black mask] {on}.(8. Nola)	attribute	Qualifier – phrase, contains expansion
	noun group	all of the kids [on the track] (8. Nola)	goal	Qualifier – phrase
	noun group	the only way [[to be split]] (5. Anne)	token	Qualifier – clause
	noun group	Three friends called Sarah, Ben and Tom (7. Nobby)	carrier (cir:att)	Qualifier – clause
	adj group	very good [[at finding things]] (7. Nobby)	attribute	Qualifier – clause
Two+ groups				
with Pre-mod Head only	noun group noun group	the teacher Mrs Forbes (6. Janet)	actor	para elab
with Pre-mod Head only	prepositional phrase contains noun group complex	with the new kid Tom. (6. Janet)	attribute (cir:att)	para elab
Head only with Pre-mod	noun group noun group	Sarah and five other kids (8. Nola)	phenom	para exten
Head only Head only Head only	noun group noun group noun group	E's, E's and a C (6. Janet)	goal	para exten
Pre- mod [[Head only Head only Head only]]	noun group contains group complex in embedded clause	Three friends called Sarah, Ben and Tom	carrier	para exten para exten
Adverbial groups				
Head only	adv group	over <i>in</i> Soon enough the day was over	attribute (cir:att)	
Head only	adv group	where <i>in</i> “Where were you	attribute (cir:att)	
Head only	adv group	where <i>in</i> where five other kids were.	attribute (cir:att)	

4.2.3.3 Circumstances (Year 4 Narratives)

4.2.3.3.1 Functional types of Circumstances (Year 4 Narratives)

Table 4. 2-26 Types of Circumstances (Year 4 Narratives)

Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive					
accomp: comitative	3		3	3.4	3.3
angle: source					
angle: viewpoint					
cause: behalf					
cause: purpose					
cause: reason	5		5	5.7	5.6
contingency: concession					
contingency: condition	1		1	1.1	1.1
contingency: default					
extent: distance					
extent: duration		1	1		1.1
extent: frequency					
location: place	50	1	51	56.8	56.7
location: time	13		13	14.8	14.4
manner: comparison					
manner: degree	1		1	1.1	1.1
manner: means	2		2	2.3	2.2
manner: quality	11		11	12.5	12.2
matter	2		2	2.3	2.2
role: guise					
role: product					
Total	88	2	90	100	100
%	98	2	100		
Count of different types of Circumstances used	9	2	10		

Types of Circumstances are shown in Table 4. 2-26, separated into ranking and other clauses. In terms of frequency of occurrence, first and second place are held by location – location:place making up 57% of the total, location:time making up 14%; thus together taking up 71% of the Circumstances. Next in frequency is Manner:quality, 12% of the total followed by Cause:reason, 6%. The other Circumstances occur in ones and twos across the Table. Even so, the Table is

sparsely populated. Of the 22 Circumstance types listed, only 10 are used by this text-group.

4.2.3.3.2 Realisation – form of Circumstances (Year 4 Narratives)

The forms taken by Circumstances are listed in Table 4. 2-27.

Table 4. 2-27 Summary of forms taken by Circumstances (Year 4 Narratives)

Circumstances in ranking clauses			Circumstances in embedded clauses			All
prepositional phrase	noun group	adverbial group	prepositional phrase	noun group	adverbial group	Total
70	1	16	2		1	90
87			3			

Prepositional phrase dominate, with 70 in ranking clauses and 2 in other clauses of the total of 90 (80%). Next come adverbial groups, with 16 in ranking clauses and 1 in other clauses (18.8%). To complete the picture, there is one noun group in a ranking clause (1.1%).

Table 4. 2-28 Detail of forms taken by Circumstances (Year 4 Narratives)

A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	68	1		2			71
Single function (Head only)	17						17
Pre-mod + Head (no post-mod)	45	1		2			48
Post-mod (may be pre-mod)	6						6
Two+ groups	2						2
Adverbial groups							
One group			15			1	16
Head only			13			1	14
Pre-mod + Head (no Post-mod)							
Post-mod (may be pre-mod)			2				2
Two+ groups			1				1
Summary of forms taken by Circumstances							
Prepositional phrases	70			2			72
Noun groups		1					1
Adverbial groups			16			1	17
Total all	87			3			90

In essence, Table 4. 2-28 expands on the nominal groups involved in Circumstances. Looking first at the final Column, we see that Circumstances involving either a prepositional phrase or noun group containing one nominal group account for 71, those involving adverbial groups account for 17, and those involving a noun group of two+nominal groups account for 2 of the total 90 occurrences. Within the cases of one nominal group, 48 are with pre-modifying function, 17 are single function (Head only), and 6 with post-modifying function. From the bottom row of the Table we see that the majority, 87, are within ranking clauses and only 3 occur outside these. Examples of the forms taken by Circumstances (Year 4 Narratives) are in Table 4. 2-29.

Table 4. 2-29 Examples of forms taken by Circumstances (Year 4 Narratives)

Function feature	Form	Example	Functional type	Note
Prepositional phrases / nominal groups				
One group				
Head only (including clause as Head)	prep phrase with adj group	like crazy (5. Anne)	manner: degree	
	prep phrase with noun group	to Mullet Creek.	location: place	multi-word Head
	prep phrase with noun group	for hurdles,	cause: reason	
with Pre-mod function	prep phrase with noun group	On the 31st of January (6. Janet)	location: time	Focus – selecting
	prep phrase with noun group	on the roof of every house in Dapto. (7. Nobby)	location: place	Focus – perspective
	prep phrase with noun group	in the blink of an eye. (7. Nobby)	manner: quality	Focus – dimension?
	prep phrase with noun group	on a piece of string (8. Nola)	location: place	Focus – partitive
with Post- mod function	prep phrase with noun group	after the six week brake [of summer holidays] (6. Janet)	location: time	Qualifier – phrase
	prep phrase with noun group	on the roof of every house in Dapto. (7. Nobby)	location: place	Qualifier – phrase
	prep phrase with noun group	with a sad look in his eyes, (7. Nobby)	manner: quality	Qualifier – phrase
	prep phrase with noun group	After the day of school (7. Nobby)	location: time	Qualifier – phrase
	prep phrase with adj group	in horror [[of being glued to his enemy forever]]. (5. Anne)	manner: quality	Qualifier – clause
	prep phrase with noun group	about his trip to China in the holidays. (6. Janet)	matter	Qualifier – phrase x2
Two+ groups				
Pre-mod Pre-mod Pre-mod Head only	prep phrase containing noun group complex	To this very day, very, hour, very minute and second (5. Anne)	location: time	para ext x3
Pre-mod Head only	prep phrase containing noun group complex	to St Johns Primary School Dapto. (6. Janet)	location: place	para ext
Adverbial groups				
adv modification	adv group	Soon enough (8. Nola)	location: time	
adv expansion	adv group	the sooner the better (5. Anne)	location: time	
adv expansion	adverbial group with prepositional phrase	everywhere and towards the string! (8. Nola)	location: place	para ext

4.2.3.4 The Nominal Group – a special case (Year 4 Narratives)

In this section are collected together the nominal groups from the Participants and Circumstance, from both ranking and embedded clauses, from the Year 4 Narratives.

Table 4. 2-30 Nominal groups (Year 4 Narratives)

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	232	9	20	261	52.6	59.2
Head=Thing	214	7	15	236	48.5	53.5
Head≠Thing, elliptical	3			3	0.7	0.7
Head≠Thing, Epithet	15	2	5	22	3.4	5.0
Pre-mod + Head only	134	4	26	164	30.4	37.2
Head=Thing	124	4	24	152	28.1	34.5
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus	10		2	12	2.3	2.7
Post-modification	15	1		16	3.4	3.6
with qualifying phrase	10	1		11	2.3	2.5
with qualifying clause	4			4	0.9	0.9
with multiple qualifiers	1			1	0.2	0.2
Total	381	14	46	441	86.4	100

The overall conclusions from Table 4. 2-30 are that a majority of the nominal groups contain a single function only (261 from 441 nominal groups, or 59.2%) and that a large minority contain a pre-modifying function (164 from 441 nominal groups, or 37.2%). A small minority contain a post-modifying function (16 from 441 nominal groups, or 3.6%).

Now we will look briefly at the three sections of Table 4. 2-30. Firstly, of the single function nominal groups, by far the most are conventional noun groups, where the Head conflates with Thing (236 from 261, or 90.4%). A few are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet (22 of 261, or 8.4%) and three have the Head conflated with an element other than an Epithet (1.5%). Secondly, of the nominal groups consisting of pre-modifier + Head, again by far the most have Head conflated with Thing (152 of 164, or 92.7%). The only other usage involves the use of focus (an extended numerative) – (12 of 164, or 7.3%).

There are no instances of pre-modification in an adjectival nominal group. Thirdly, in the 3.7% of clauses that contain a post-modifying element, most (11 of 16 or 68%) contain a qualifying phrase, four (or 25%) a qualifying clause, leaving one instance of a nominal group that had multiple qualifiers (1 in 16, or 6.3%).

Examples of nominal groups appear in Table 4. 2-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the first position to allow room for examples. The final Column provides brief notess pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 4. 2-31 Examples of nominal groups (Year 4 Narratives)

Total	% Total	Feature	Example		Notes/type
261	59.2	single function – Head only			
236	53.5	Head=Thing	pronouns (49.6%); common nouns (14.0%); proper nouns (36.4%). (Some multi-words e.g. <i>Mullet Creek</i> & word complexes e.g. <i>Sarah and Ben.</i>) (Personal pronouns 44.9%.)		
3	0.7	Head≠Thing, elliptical	This <i>in</i> This made him start walking everywhere (8. Nola)		deictic only
22	5.0	Head≠Thing, Epithet	very unhappy <i>in</i> Ben and Sarah were very unhappy (6. Janet)		submodification in Epithet
164	37.2	Pre-mod + Head only			
152	34.5	Head=Thing	SEE TABLE BELOW		
		Head≠Thing, elliptical			
		Head≠Thing, Epithet			
12	2.7	Head≠Thing, focus	the blink of an eye		F-dimension
16	3.6	Post-modification			
11	2.5	with qualifier – phrase	single function (Head≠Thing, Epithet)	good at any sports (8. Nola)	
			with Pre-mod (Head=Thing)	the six week brake of summer holidays (6. Janet)	
			with Pre-mod (Head≠Thing, focus)	the roof of every house in Dapto (7. Nobby)	
4	0.9	with qualifier – clause	(Head≠Thing, Epithet)	horror [[of being glued to his enemy forever]]. (5. Anne)	non-finite clause as qualifier
				very good [[at finding things]] (7. Nobby)	non-finite clause as qualifier
			(Head=Thing)	the only way [[to be split]] (5. Anne)	non-finite clause as qualifier
				Three friends [[called Sarah, Ben and Tom]] (7. Nobby)	finite clause as qualifier
1	0.2	with multiple qualifiers	(Head=Thing)	his trip to China in the holidays.(6. Janet)	<i>with qualifier – phrase x2</i>
441	100	Total			

Concerning the question of how the Head is modified, it may be concluded that simple nominal groups of Head only are more common than those with pre-modifying functions by about one-and-a-half (258:163) and about sixteen times more common than those with post-modifying elements.

Now we will focus on the highlighted row from Table 4. 2-30, shown again for convenience here:

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	232	9	20	261	52.6	59.2
Head=Thing	214	7	15	236	48.5	53.5
Head≠Thing, elliptical	3			3	0.7	0.7
Head≠Thing, Epithet	15	2	5	22	3.4	5.0
Pre-mod + Head only	134	4	26	164	30.4	37.2
Head=Thing	124	4	24	152	28.1	34.5
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus	10		2	12	2.3	2.7
Post-modification	15	1		16	3.4	3.6
with qualifying phrase	10	1		11	2.3	2.5
with qualifying clause	4			4	0.9	0.9
with multiple qualifiers	1			1	0.2	0.2
Total	381	14	46	441	86.4	100

Table 4. 2-32 displays the range of configurations of pre-modifying elements Deictic, Numerative, Epithet, Classifier and Thing used in nominal groups where the Head conflates with the Thing.

Table 4. 2-32 Pre-modification in the nominal group (Year 4 Narratives)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing				
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing	3	2.0	this very day (5. Anne)	the same time (7. Nobby)
DeicticNumerativeEpithetThing				
Deictic/NumerativeThing	4	2.6	the second day (6. Janet)	a few hours (8. Nola)
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing				
DeicticEpithetEpithetEpithetThing				
DeicticEpithetEpithetThing	1	0.7	Their warm, cosy homes (7. Nobby)	
DeicticEpithetThing	19	12.5	the so called 'Footy'. (5. Anne)	in a heroic voice.(7. Nobby)
DeicticClassifierClassifierThing				
DeicticClassifierThing	8	5.3	a straight A student (6. Janet)	the train station (8. Nola)
DeicticThing	96	63.2	the kidnapper (8. Nola)	Sarah and Ben's marks (6. Janet)
Deictic2Thing	2	1.3	very hour (5. Anne)	very minute (5. Anne)
Deictic2ClassifierThing				
NumerativeClassifierThing				
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing	4	2.6	two popular kids (6. Janet)	five other kids (8. Nola)
NumerativeThing	6	3.9	too much make-up (5. Anne)??	no friends (6. Janet)?? can change two arms (8. Nola)
EpithetClassifierThing				
EpithetEpithetThing	1	0.7	big red cheeks (6. Janet)	
EpithetThing	3	2.0	completely different personalities (5. Anne)	TOTAL FREAKS (5. Anne)
ClassifierClassifierThing				
ClassifierThing	5	3.3	summer holidays (6. Janet)	best friends.(6. Janet) poison ivy.(7. Nobby)
25 Total	152	100		
Count of different configurations used	12			

Of the 25 available patterns, 12 were used (48%). The most used configuration is DeicticThing (with 63.2%). Next most common uses the addition of a single Epithet – DeicticEpithetThing (12.5%). There are 8 instances of DeicticClassifierThing (5.3%), 6 instances of NumerativeThing (3.9%) and five of ClassifierThing (3.3%). Four (4) instances use NumerativeEpithetThing (2.6%) and DeicticNumerativeThing

(2.6%) and there are 3 instances each of DeicticDeictic2Thing and EpithetThing (2%), 2 of Deictic2Thing (1.3%) and one each of multiple Epithets – DeicticEpithetEpithetThing (1%) and EpithetEpithetThing (1%).

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 28 of the 152 (18.4%) involve the use of Epithets (using 5 configurations, 2 of them using more than one (one each)). Thirteen (13) nominal groups use a Classifier, (8.6%) (using ClassifierThing 5, DeicticClassifierThing 8).

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres. In the case of the Year 4 Narratives, 21 (or 13.8%) noun groups do not use a deictic.

There is any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

We now turn to look at the comparable features in Year 5 Narratives.

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4.3 Findings: Year 5 Narratives

4.3.1 Whole text information (Year 5 Narratives)

Texts 9-12 constitute the four Year 5 Narrative texts.

4.3.1.1 Text 9. Little Red Riding Hood, by Alice

Table 4. 3-1 Text 9. Little Red Riding Hood (Alice, 5/N)

9. Little Red Riding Hood (Alice, 5/N)	Stages
One day Little Red Riding Hood was going to her Grandma's house to deliver goodies when she met the Ugly Duckling. "Hello" said Little Red Riding Hood. The Ugly Duckling didn't look very happy.	Orientation
"What is the matter" said Little Red. "Oh nothing its just that today is my birthday and none[sic] rembers[sic]." "Well" said Red "Happy Birthday". "Thanks" said the Ugly Duckling "But it is not the same". Little Red said "Well it couldn't of[sic] been that bad, tell me what happened." "Well, I was walking along" the Duckling began, " and the wolf came out of nowhere and nearly treaded[sic] on me, and what do you know Hansel and Gretel came chasing after wolf and did tread of me and now my wing is brocken[sic] on my birthday". "Ah, so it was pretty bad" said Red trying not to giggle for the fact she knew they had a surprise party planned. "So, what else happened" asked Red. "Oh, nothing just that on the way here Sleeping Beauty and Rapunzul were having a fight about cake and how it was supposed to be chocolate not strawberry. But the funny thing was they stopped fighting when I came." Then finally the Ugly Duckling toke[sic] a brethea[sic]. "Oh well" said little Red Riding Hood "at least we can go to my Granny's house to have some cake".	Complication
When they got [sic] Granny's house Granny was not home well at least it didn't look it. Then as soon as they got inside the house everybody jumped out and gave The Ugly Duckling presents and in the end he found why Sleeping Beauty and Rapunzul were fighting over cake.	Resolution
In the end he had a great day.	Coda

Table 4. 3-2 Text 9. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
23	8	15	50	4	1	135	282	2.7	5.6

4.3.1.2 Text 10 Ship Wrecked! by Cassie

Table 4. 3-3 Text 10 Ship Wrecked! (Cassie, 5/N)

10. Ship Wrecked! (Cassie, 5/N)	Stages
One Sunday afternoon, I was on a ship cruises with my family. The bright sun was shining. The crystal clear, salt water was very calm. There was only a light breeze.	Orientation
<p>Suddenly, dark, grey and black clouds covered the sky. Thunder rumbled and lightning struck. It wasn't calm anymore. Now, the waves were rough. My family and I caught a raft and threw it out of the boat. One at a time we jumped onto the rubber raft.</p> <p>The next day, we saw land. We started to paddle faster and faster. When we reached the land, it had dirt and lots of trees. It was a rainforest. It all looked tropical. The[sic] we all realised it was tropical. As long as there was land we were safe. After half an hour, my mum said "First things first, we have to find food." So we left our new place to search for food. On our way, we saw a flock of about 9 toucans flying up to a tree to collect berries. I then said "Do you want us to climb up that tree to get berries?" My mum and dad nodded.</p> <p>So my sisters and I were climbing up to where the toucans were. We collected a handful each and climbed back down. When we were walking back, we interrupted a small family of snakes. We were all backing away and then we saw sticks. My dad picked up one and wacked them with it. They slowly died. We ran all the way back to our new home. We started eating lots of berries, as we all shared them.</p> <p>The days past as week. Then soon the[sic] became months. We did the same thing over and over again. We went swimming some days, and fishing the next. We ate as much as we could. One night, we started a fire to keep warm. We were trying to get to sleep, but something kept bothering us. They were crawling on us. "Dad, what's on me?" my sister asked, nearly trembling. We moved closer to see what it was. Crawling on her were venomous[sic] spiders. Suddenly, we all ran to the water and jumped in. When we came out, we were lucky there wasn't any bites on us.</p>	Complication
Then one day we saw a ship coming past. We quickly did things to get them to notice us. People on the boat saw us and were yelling. The boat was coming towards us. The sailor put the anchor down and let us come aboard his ship.	Resolution
The people asked us what happened to us and we kept telling them exactly what happened. THE END	Coda

Table 4. 3-4 Text 10. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
49	25	24	77	8	1	202	434	2.6	5.6

4.3.1.3 Text 11. The Lesson of Values, by Gordy

Table 4. 3-5 Text 11. The Lesson of Values (Gordy, 5/N)

11. The Lesson Of Values (Gordy, 5/N)	Stages
<p>One day a class called 3Z had a very bad day because someone in their class had wrecked and graffitied[sic] the library[sic] at their school which is winebush public. "The crime seems to have happened at 6:30 before school started" said pricipal[sic] derus[sic] " and if anyone knows who did this please stand." but of corse[sic] nobody did. Then I heard the princapal[sic] whisper. Well no one knows who is this person is and he dos'nt[sic] know the lesson of values."</p>	<p>Orientation/ Complication</p>
<p>At recess I thought who did this must pay cause I actally[sic] am a book worm. I started at the bully bins where all bullys[sic] are. I went to and said "I'll give you my money if I can ask you a few questions". They agreed and I asked them one by one. First I asked Black Eye, then Dirt Bag, then The rat and lastly Big Boy.</p> <p>When I left I had found out nothing so then I asked the book club but they know nothing either. There was one club left and it was the one that hated the libarien[sic] the most, "The Gage Girls". they hated the libarien[sic]. the cause is that she always destroyed their plans and most people are grateful for it.</p> <p>As I was aproching[sic], one of them grabbed me and pushed me covering my eyes so I can't see where I'm going. Next thing I know I'm on my [] looking at their leader spice attack, the meanest and roughest person in the play ground. Just starring[sic] at her made me want to cry and I almost did which is imbaressing[sic]. Then she said "why are you here?" and I said "I wanted to ask about the icerdent[sic] in the library[sic]." She just froned[sic] and said "get him out of here!" then I said very quickly "I'll do anything," I wished hadn't said that but I had already said it. I asked questions and I got only one thing what the person called theirself[sic] and it was "The Destroyer". They had no idea what or who that meant. Then they said It was turn to fulfill the deal and I was scared out of my pants. They wanted me to walk around the playground with my underpants showing and then I yelled "GOD HELP ME GOD' and I said it because I saw it on the simpsons[sic].</p> <p>And again I got chuked[sic] around with my eyes closed and then I was back in the schoolyard. Then, one of the "Gage Girls" said "do it tomorrow" and I left out of their quick. When they were out of sight the bell rang and I was off to class. We were learning about history and BC what it standed[sic] for. When it hit me the initials for the "Destroyer" was "TD" and their[sic] was only three people with the initials of "TD" [(that)] hated the school libarien[sic]. They were "Teddy Donut, Tom Darks and Treak Debhead". Just then, the school</p>	<p>Resolution</p>

<p>bell and it was time to go home but lucy[sic] it was the weekend and I was happy cause I didn't have to show my underpants to the school the next day.</p> <p>When I got home I went to the computer to check out the three suspects permenet[sic] record. They all look good acept[sic] for "Tom Darks". He had an incerdent[sic] with a old teacher called Mrs Pinkey. He had put a stink bomb in her purse when she was leaving at the school ceremony and opening her purse to get her speech and who found out it was him the libraion[sic]. So it was "Tom Darks" but all I needed was proof. So tomorrow, oh I mean Monday I'll find a way to prove it was him so I don't have to show my underpants to the whole school in the playground</p> <p>On Monday I go to the princibals[sic] office and told her how I had found out it was "Tom Darks". When I finished she just looked at me for 5 minutes and then said "do you have proof" and then I said "No not yet" then she stood up and said "well lets find some" I [] shoked[sic] and excited at the same time. We went out of the office to one of the classrooms which I guessed was were[sic] "Tom Darks" was in. We went inside and at the back of the classroom was Tom. Then Mrs Derus said "Tom can you come outside and have a little chat." He came looking innocent. He came outside and said "whats[sic] wrong?" Mrs Derus said "we want to look in your bag." He gulped and looked nerves[sic]. "OK" he said after one minute. He went and got his bag and showed us what was inside and what do we find ripped paages[sic] in books and two graffiti cans.</p>	
Then I felt proud I had solved the case and I hope he learnt his lesson of values.	Coda

Table 4. 3-6 Text 11. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
52	9	43	145	21	3	361	820	2.5	5.7

4.3.1.4 Text 12. On a Rainforest Quest, by Sara

Table 4. 3-7 Text 12. On a Rainforest Quest (Sara, 5/N)

12. On a Rainforest Quest (Sara, 5/N)	Stages
<p>Long ago, Sammy and Dog were sleeping in a colony with all the other mosquitoes. They were dreaming happily, until suddenly "Theres no more food in the kitchen!" shouted Danny, the head chef. "What?" shouted Zan Zan, the king of all the colony. "That can't be true! The colony has always had food!" "The only food we can get is the one in the rainforest!" cried Danny. "We need volunteers?"</p>	Orientation / Complication
<p>"We'll volunteer!" shouted Sammy. "We will love to go into the rainforest!"</p> <p>So by lunch, Sammy and Dog were on their way into the rainforest to find food. They walked for a while, finding only enough to feed 1 person. They bumped into a koala, who said that they could have some of her trees leaves if they liked. They decided that they would, and packed that too. They had brought along a large backpack to put their food in. They thanked the koala and then headed off again.</p> <p>They walked and walked until they got to a billabong. They decided to fill up their drink bottles and get some extra water for the colony just incase[sic]. They found a large leaf and sailed across. On their way, they met a tree frog. He said that we could have some insects he had caught a few days earlier. They thanked the frog and headed off again.</p> <p>They kept walking, and they met a wallaby. The wallaby offered them a ride and some of his grass. They hopped along and then they found a large walking track. They discovered it was a walking track for humans to see the large, lush green rainforest. They thought it was a great place to look for food. "There!" There is a large pile of flowers of nectar, crumbs and the kings[sic] favourite food, Zaccardas. They took it all, and filled up their pack.</p> <p>They thanked the wallaby, who was called John, and then flew off back to the colony.</p> <p>"Weve[sic] found food!" shouted Dog. They flew up to the king and said, "Your majesty, we have brought you some eucalyptus leaves from a koala, some extra water just incase[sic], some insects, from a frog, some grass from a wallaby, nectar flowers, some human crumbs and your favourite, zaccardas." "Sammy and Dog, you have saved the colony. I grant you whatever you like."</p> <p>Sammy and Dog said "Another Rainforest Quest."</p>	Resolution

Table 4. 3-8 Text 12. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
35	12	23	65	6	0	185	393	2.8	6.0

4.3.2 Sentence-level information (Year 5 Narratives)

An overview of features of this text-group appears in Table 4. 3-9.

Table 4. 3-9 Overview (Year 5 Narratives)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
9	23	8	15	50	4	1	135	282	2.7	5.6
10	49	25	24	77	8	1	202	434	2.6	5.6
11	52	9	43	145	21	3	361	820	2.5	5.7
12	35	12	23	65	6	0	185	393	2.8	6.0
Part B										
T	159	54	105	337	39	5	883	1929		
Av	39.75	13.5	26.25	84.25	9.75	1.25	220.75	482.25	2.7	5.7

Texts 9-12 are the Year 5 Narratives. Sentence level characteristics of each text are set out in Table 4. 3-9, summarised in the final 2 rows. From this lower section of the table, it can be seen that the Year 5 Narrative data is contained in 159 sentences, comprised of 54 clause simplexes (34%) and 105 clause complexes (66%). Altogether there are 337 ranking clauses. Of the 337 clauses, 44 contain embedded clauses in some form (Columns F + G) (13%) while 293 (87%) do not (Columns E – (F + G)). Of the clauses that contain embedding, 39 contain clause-simplexes and 5 contain clause-complexes, a ratio of about 8 to 1. The ratio of total words (1929) to lexical items (883) is 2.2:1 and the average lexical density across the 4 texts (clauses÷lexical items) is 2.7. The mean length of each clause is 5.7 words.

Although 1 of the 4 texts utilises (marginally) more simplexes than complexes, the characterisation of the group is that the use of clause complexes exceeds the use of clause simplexes, with the ratio being almost 2:1.

4.3.2.1 Sentence constituents (Year 5 Narratives)

Table 4. 3-10 Sentence and clauses (Year 5 Narratives)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no explicit dependency (simplex)	With paratactic dependency (complex)	With hypotactic dependency (complex)	With dependency of both types (complex)	Total nexuses
1	54	34.0	54				
2	61	38.4		41	21		61
3	26	16.4		8	4	13	52
4	10	6.3		3	1	6	30
5	5	3.1		1		4	20
6	3	1.9				3	15
7							
8							
Total	159	100	54	53	26	26	178
%			34.0	29.8	14.6	14.6	

In Table 4. 3-9, we see that the 159 sentences in the Year 5 Narratives are made up of 54 clause simplexes and 105 clause complexes. Table 4. 3-10 analyses these sentence constituents. It reveals that 2-clause sentences (38%) nudge out 1-clause sentences (34%) as the most common; 3-, 4-, 5- and 6-clause sentences are successively less common (Columns B, C). About one-third of the sentences are simplex (Column D).

Put another way, the 54 clause simplexes represent 34% of the total clauses, leaving 66% of clauses involved in a complex. The clause complexes are of varying length: 38% are 2 clauses long, 16% are 3 clauses long, 6% are 4 clauses long, 3% are 5 clauses long and 2% are 6 clauses long

66% of sentences are clause complexes. In these clause complexes, paratactic relations are about twice as common as hypotactic relations in sentences that contain only one type of relation, and sentences with both types of relations are as common as sentences with hypotactic relations alone (Columns E, F and G). In this data set, nexuses total 178 (Column H).

Table 4. 3-11 Dependency relations between clauses (Year 5 Narratives)

Nexus type	Count	% of relation type
Paratactic	110	61.8
Hypotactic	68	38.2
Total	178	

Taking into account both the sentences with a single type of relation and those with relations of both types, the total number of paratactic nexuses and the total number of hypotactic nexuses may be determined. The results are tabulated in Table 4. 3-11. It turns out paratactic nexuses constitute 61.8% and hypotactic nexuses 38.2% of the whole.

Table 4. 3-12 shows usage of the logico-semantic relations, expansion and projection.

Table 4. 3-12 Taxis/logico-semantic relations in clause complexes (Year 5 Narratives)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition	1			
		exemplification				
		clarification				
		description		8	8	
	extension	addition: additive	54	6		6
		addition: adversative	6			
		variation				
		alternation				
	enhancement	temporal	11	14	14	
		spatial				
		manner				
		cause	3	17	6	11
		conditional		4	4	
projection	locution idea	(speech)	34	3	3	
		(thought)	1	16	14	2
		Total	110	68	49	19

Column D of Table 4. 3-12 shows the 110 instances of parataxis. All types of *expansion* are utilised: The complexes are expanded through *elaboration: exposition* (1), through *extension: addition* (54 additive and 6 adversative) and through two sub-types of *enhancement: enhancement* – *:temporal* (11) and *:cause* (1). There are 34

instances of *projection: locution* (quoted speech), and 1 instance of *projection: idea* (quoted ‘thought’).

Column E shows the 68 instances of hypotaxis. Again, all types of *expansion* are utilised: *elaboration: description* (8), *extension: addition* (6), and in *enhancement*, three sub-types – *:temporal* (14), *:cause* (17) and *:conditional* (4). There are 3 instances of *projection: locution* (reported speech) and 14 instances of *projection:idea* (reported thought). These 68 hypotactic clause complexes employ dependent clauses of both finite (49) and non-finite forms (19).

Turning now from the make-up of sentences in terms of ranking clauses, the following group of tables transition focus to the occurrences and placements of embedded clauses.

Table 4. 3-13 Dispersion and count of ranking clauses (Year 5 Narratives)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	54	54	13	41
2	61	122	16	106
3	26	78	6	72
4	10	40	4	36
5	5	25	4	21
6	3	18	1	17
7				
8				
Total	159	337	44	293
%			13.1	86.9
Average per text	39.75	84.25	11	73.25

Transitioning our gaze from ranking clauses to embedded clauses, Table 4. 3-13 shows that, in sentences of any length, the number of clauses that do not contain embedding substantially exceed the number that do. Over the text-group as a whole, 293 clauses, or 87%, do not contain embedding; 44 (or 13%) do.

It is that 44 (or 13%) of ranking clauses that contain embedding that we are now interested in. We now extend the analysis of Table 4. 3-13, explicating in the main, Column D of that table. Table 4. 3-14 tallies (Column B) and shows the forms of the

embedding (Column C) and where the embedding functions in the functional constituent element of its host clause (Columns D and E).

Table 4. 3-14 Embedding in ranking clauses (Year 5 Narratives)

A	B	C	D	E	F
Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
Embedded clause/s as Qualifier in a nominal group	23	[[]Q	21	2	Then one day we saw a ship [[coming past]] . (10. Alice)
		[[[]Q]Q			
		multiQ			
	2	[[//]Q	2		I'll find a way [[to prove // it was him]] (11. Cassie)
		[[// //]Q			
		[[// // //]Q			
Embedded clause/s as a whole nominal group	16	[[]clH	13	3	... and showed us [[what was inside]] (11. Cassie)
		[[[]Q]clH			
		multiclH			
	3	[[//]clH	3		But the funny thing was [[they stopped fighting // when I came."]] (9. Sara)
		[[// //]clH			
		[[// // //]clH			
		[[// []Q]clH			
		[[<<>>]clH			
Both		mixed			
	44	Totals	39	5	
Summary					
Qualifier in a nominal group	25	56.8%	23	2	
Whole nominal group	19	43.2%	16	3	
Total	44	100%	39	5	
			88.6%	11.4%	

In the Year 5 Narratives, 44 of 337 clauses contain embedded clauses. Table 4. 3-14 shows 25 instances of the embedded clause acting as a Qualifier in a nominal group, denoted here with a final Q. Embedding also occurs 19 times where the clause acts as the whole nominal group, denoted with a final clH. As may be seen from Columns D and E, embedding in/as Circumstances is rare, occurring only 5 times, whereas embedding in/as Participants is much more common, occurring 39 times.

Table 4. 3-15 Embedded clauses (Year 5 Narratives)

A	B	C	D
Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
39	simplexes		39
39	[[]]	finding only enough [[to feed 1 person]] (12. Sara)	39
	[[]]c (multiple in one clause)		
	[[]]el (multiple in one element/group)		
	[[e]] (with an embedded clause)		
	e[[]]Q (form of [[e]])		
5	complexes		10
5	[[// //]]	But the funny thing was [[they stopped fighting // when I came.']] (9. Alice)	2
		On our way, we saw a flock of about 9 toucans [[flying up to a tree // to collect berries]]. (10. Cassie)	2
		and I got only one thing [[what the person called theirselt // and it was "The Destroyer"]]. (11. Gordy)	2
		and [[who found out // it was him]] {was} the libraion. (11. Gordy)	2
		So tomorrow, oh I mean Monday I'll find a way [[to prove // it was him]] (11. Gordy)	2
	[[// // //]]		
	[[// // []]]		
	[[<>>]]		
	incl		
44	Total		49
Summary of simplicity of embedded clauses			
simplexes	39	88.6%	Average per text: 9.75
complexes	5	11.4%	Average per text: 1.25
Totals	44	100%	Average per text: 11

Now, to consider the embedded clauses in terms of complexity (Table 4. 3-15). The 39 simplexes are straightforward and all occur in separate clauses. All 5 complexes are composed of 2 clauses. These two options account for the total 44 clause embeddings (Column A), involving a total of 49 individual clauses embedded (Column D). Examples are given in Column C.

Table 4. 3-16 Detail of use of embedded clauses (Year 5 Narratives)

Placement shorthand	How embedding manifests	Simplex/ individual clause count	Examples	
in_ngQ_(P)	as Qualifier in a nominal group in a Participant (17 simplex; 4 in complexes (2x2))	22	they had a surprise party [[planned]] . (9. Alice)	goal
			one day we saw a ship [[coming past]] . (10. Cassie)	phenom
			One day a class [[called 3Z]] had a very bad day (11. Gordy)	carrier: possessor
			"The only food [[we can get]] is the one in the rainforest!" (12. Sara)	token
in_ngQ_(C)	as Qualifier in a nominal group in a Circumstance	1	Next thing [[I know]] I'm on my [] (11. Gordy)	location: time
in_ngQ_(e)_(P)	as Qualifier in a nominal adjectival group in a Participant	3	we were lucky [[there wasn't any bites on us.]] (10. Cassie)	attribute
			Then I felt proud [[I had solved the case]] (11. Gordy)	attribute
			... finding only enough [[to feed 1 person]] ((12. Sara)	goal
in_ngQ_(e)_(C)	as Qualifier in a nominal adjectival group in a Circumstance	1	We ate as much as [[we could]] . (10. Cassie)	manner: degree
clH_(P)	as whole nominal group in a Participant 13 +(2x2)	16	its just [[that today is my birthday]] (9. Alice)	value
			he found [[why Sleeping Beauty and Rapunzul were fighting over cake.]] (9. Alice)	phenom
			I can't see [[where I'm going]] . (11. Gordy)	phenom
			The people asked us [[what happened to us]] (10. Cassie)	verbiage
			and [[who found out // it was him]] {was} the libraion. (11. Gordy)	value
clH_(C)	as whole nominal group in a Circumstance	2	So my sisters and I were climbing up to [[where to toucans were]] . (10. Cassie)	location: place
in_XX_(P)	in a group complex that is Participant (1 simplex; 1x2 complex)	3	it was the one [[that hated the libarien the most,]] "The Gage Girls". (11. Gordy) in_ngQ	value
			and I got only one thing [[what the person called theirself // and it was "The Destroyer"]] . (11. Gordy) in_ngQ	phenom

in_XX_(C)	in a group complex that is Circumstance	1	We were learning about history and BC [and] [[what it stood for]] (11. Gordy) clH	matter
Total		49		
Summary of function of embedding and as Participant or Circumstance				
as Qualifier in a nominal group in a Participant		28	(includes 3 from group complex)	
as whole nominal group in a Participant		16		
as Qualifier in a nominal group in a Circumstance		2		
as whole nominal group in a Circumstance		3	(includes 1 from group complex)	
Total		49		

Table 4. 3-16 gives details of the uses, including examples, of the embedded clauses. The placement *as Qualifier in a nominal group in a Participant* occurs 22 times and *as a whole nominal group in a Participant* 16 times. Much less common is usage in *a group complex that is Participant* (3 times), *as a Qualifier in a nominal adjectival group in a Participant* (3 times), *as a whole nominal group in a Circumstance* (2 times) and *as Qualifier in a nominal group in a Circumstance*, *as Qualifier in a nominal adjectival group in a Circumstance* and *in a group complex that is Circumstance* (1 time each). Examples are given in the fourth Column along with the functional label of the transitivity element in the final Column.

4.3.2.2 General description (Year 5 Narratives)

The Year 5 Narratives have been characterised according to average length in terms of sentences (39.75) and individual ranking clauses (84.25) and by a simple word average (482) which has been divided into lexical (221) and, by calculation, grammatical (262) items. Lexical density has been calculated (2.7). The ranking clauses have been further described by average usage of clause-simplexes (13.5) and clause-complexes (26.25). The explicit interdependency relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 61.8% to 38.2%. Logico-semantic relations in clause-complexes are identified.

Embedded clause usage has been examined from two perspectives: (i) the number of clauses containing embedding and (ii) the number of embedded clauses. The average

per text for (i) is 11: clauses containing embedded simplexes (9.75) and those with clause complexes (0.25). The average per text for (ii) is 11: embedded simplexes (9.75) and embedded complexes (1.25). When employed, embedded clauses are used both as qualifiers in a nominal group (56.8%) and as Whole nominal groups (43.2%). They are involved in (or as) Participants (88.6%) and (or as) Circumstances (11.4%).

In summary, in Table 4. 3-9, some general, sentence level, features of the Year 5 Narratives are gathered together and summarised. The rest of the tables in Section 4.2.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of analysis: a look at the Experiential elements of the texts (Section 4.3.3), looking first at the functional elements in a clause (Processes, 4.3.3.1; Participants, 4.3.3.2; Circumstances, 4.3.3.3), and then at the breakdown of the nominal group (4.3.3.4).

Now we turn to look more closely at the functional constituents of the sentences/clauses.

4.3.3 Transitivity (Year 5 Narratives)

4.3.3.1 Processes (Year 5 Narratives)

4.3.3.1.1 Functional types of Processes (Year 5 Narratives)

Table 4. 3-17 Process types (Year 5 Narratives)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	137	23	160	42.4	43.1
mental	45	7	52	13.9	14.0
mental: cognition	21	4	25	6.5	6.7
mental: desideration	7		7	2.2	1.9
mental: emotion	4	3	7	1.2	1.9
mental: perception	13		13	4.0	3.5
relational	70	14	84	21.7	22.6
R attrib: intens	38	4	42	11.8	11.3
R attrib: circ	1		1	0.3	0.3
R attrib: poss	9	1	10	2.8	2.7
R id: intens	22	9	31	6.8	8.4
R id: circ					
R id: poss					
Subtotal(principal)	252	44	296	78.0	79.8
Subsidiary					
behavioural	10	2	12	3.1	3.2
verbal	55	1	56	17.0	15.1
existential	6	1	7	1.9	1.9
Subtotal(subsidiary)	71	4	75	22.0	20.2
Total	323	48	371	100	100
%	87.1	12.9	100		
Count of different Process types used	6	6	6		

Table 4. 3-17 enumerates Process types. To take in the ‘big picture’ first, it is useful to start at the second and third last rows. Here we see there are 323 ranking clauses and 48 non-ranking clauses, making a total of 371; in terms of proportions, ranking clauses make up 87.1% of the clauses and non-ranking 12.9%.

Narrowing in on principal and subsidiary Processes, principal Processes dominate, making up 78% (to the nearest percent) of ranking clauses (and 80% of all); subsidiary clauses constitute 22% (to the nearest percent) of ranking clauses (and 21% of all)

Of the principal ranking Processes, material are most common (137), then relational (70), then mental (45). Of the subsidiary Processes in the bottom portion of Table 1-8, verbal Processes dominate (55). Usage of behavioural processes is next (10) and of existential, least (6).

The non-ranking clauses make up 12.9% of clause usage, and shows the same pattern of usage demonstrated in the ranking clauses: usage of material processes still dominate, (23), then relational (14), mental (7). Usage of subsidiary Processes follows behavioural (2), verbal (1) and existential (1). Within the relational Processes in ranking clauses, *attributive intensive* processes occur most often, 38 times; next, *identifying intensive* (22), *attributive possessive* (9), *attributive circumstantial* (1) are all used. A different pattern holds for relational Processes in the non-ranking clauses, with *identifying intensive* occurring most often (9), followed by *attributive intensive* (4), *attributive possessive* (1) and no *attributive circumstantial*. With respect to mental Processes, the order of frequency of appearance in ranking clauses is *cognition* (21), *perception* (13), *desideration* (7) and *emotion* (4); in non-ranking clauses, the instances are *cognition* (4) and *emotion* (3).

Across clause types, the frequency of use of types of processes is:

material	160	(43.1%)
relational	84	(22.6%)
verbal	56	(15.1%)
mental	52	(14.0%)
behavioural	12	(3.2%)
existential	7	(1.9%)
Total	371	(100%)

4.3.3.1.2 Realisation – form of Processes (Year 5 Narratives)

General information about the forms of Processes is given in Table 4. 3-18.

Table 4. 3-18 Process form (Year 5 Narratives)

A	B	C	D	E	F
Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
A Complexity:					
Verbal group simplexes	300	45	345	92.9	93.0
Verbal group complexes	23	3	26	7.1	7.0
Total	323	48	371	100	100
B Other features:					
Phrasal verbs	18		18		
Modal finites	20	2	22		
Modal adjuncts	5	1	6		

Whether only ranking clauses are considered (Column E) or all clauses (Column F), simplexes account for 93% and complexes account for 7% of the sentences. Modal finites, phrasal verbs and modal adjuncts are all used in Year 5 Narratives. Modal finites were used 22 times and modal adjuncts 6 times. There were 18 phrasal verbs used.

Table 4. 3-19 Verb complexing summary (Year 5 Narratives)

Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis	3		3	14.3	13.0
expansion elaboration					
expansion extension	3		3	14.3	13.0
expansion enhancement					
projection not applicable					
Hypotaxis	18	3	21	78.3	80.8
expansion elaboration	9	1	10	39.1	38.5
expansion extension	4	1	5	17.4	19.2
expansion enhancement	2	1	3	8.7	11.5
projection	3		3	13.0	11.5
Multiple complexing	2		2	8.7	7.7
Total	23	3	26	100	100

Table 4. 3-19 provides a summary of verb complexing. The sole case of parataxis by itself involves *expansion: extension*. There are 2 cases involving more than one relation. Of the 46 cases involving single hypotaxis, most involve *expansion: extension* (21), followed closely by *expansion: elaboration* (19); cases of *expansion:*

enhancement and *projection* are very much and equally rarer, with 3 examples of each. Table 4. 3-20 sets out examples of complexing in the verb.

Table 4. 3-20 Instances of complexing in the verb (Year 5 Narratives)

Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis	3			
expansion elaboration				
expansion extension	3	They walked and walked (9. Sara)	material	PX: ext and or
		because someone in their class had wrecked and graffitied the library at their school (11. Gordy)	material	
		I {was} shoked and excited at the same time. (11. Gordy)	mental: emotion	
expansion enhancement				
projection not applicable				
Hypotaxis	21			
expansion elaboration	10	We were learning about history and BC [and] [[what it stood for]] (11. Gordy)	mental: cognition	general be=> voice
		but something kept bothering us. (10. Cassie)	mental: cognition	gen elab keep
		and we kept telling them exactly [[what happened]]. (10. Cassie)	verbal	
		They kept walking , (12. Sara)	material	
		[[they stopped fighting]] (9. Alice)	material[[]]	gen elab start
		We started to paddle faster and faster. (10. Cassie)	material	
		We started eating lots of berries, (10. Cassie)	material	
		to get them to notice us. (10. Cassie)	mental: cognition	
		And again I got chuked around with my eyes [[closed]] (11. Gordy)	material	passive
expansion extension	5	"Oh well ..<<>>. at least we can go to my Granny's house (9. Alice)	material	general: can=> modality
		if I can ask you a few questions". (11. Gordy)	verbal	
		The only food [[we can get]] (12. Sara)	material[[]]	
		trying not to giggle (9. Alice)	behavioural	general: try
		We were trying to get to sleep, (10. Cassie)	behavioural	
expansion enhancement	3	[[how it was supposed to be chocolate not strawberry]]. (9. Alice)	R attrib: intens [[]]	caus mod agency med
		and let us come aboard his ship. (10. Cassie)	material	caus mod agency low
		"well lets find some" (11. Gordy)	material	
projection	3	I wanted to ask about the icerdent in the libary." (11. Gordy)	verbal	proposal: idea want
		"we want to look in your bag." (11. Gordy)	material	
		"We will love to go into the rainforest!" (12. Sara)	material	
Multiple complexing	2	"The crime seems to have happened at 6:30 (11. Gordy)	material	HX elab general: seem / elab passive
		[[Just starring at her]] made me want to cry (11. Gordy)	behavioural	HX enhanc mod agency high / projec proposal: idea want
Total	26			

4.3.3.2 Participants (Year 5 Narratives)

4.3.3.2.1 Functional types of Participants (Year 5 Narratives)

Table 4. 3-21 Participant roles (Year 5 Narratives)

A	B	C	D	E	F	G
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material <i>oblique</i>	actor	101	11	112	22.1	21.7
	goal	59	7	66	12.9	12.8
	recipient	8	1	9	1.8	1.7
	client					
	scope	9		9	2.0	1.7
	initiator					
	attribute: depictive					
	attribute: resultative					
mental <i>oblique</i>	senser	41	6	47	9.0	9.1
	phenom	21	3	24	4.6	4.7
	inducer					
relational: attrib	carrier	44	5	49	9.6	9.5
	attribute	47	4	51	10.3	9.9
R attrib: intens	carrier	22	1	23	4.8	4.5
	attribute	26	1	27	5.7	5.3
R attrib: circ	carrier (cir:att)	12	3	15	2.6	2.9
	attribute (cir:att)	12	3	15	2.6	2.9
	carrier (cir:pr)	1		1	0.2	0.2
	attribute (cir:pr)					
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	9	1	10	22.0	1.9
	attribute: possessed(poss:pr/carr:p'r)	9		9	22.0	1.7
	carrier: possessed(poss:pr/carr:p'd)					
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary					
relational: ident	token	22	10	32	4.8	6.2
	value	21	8	29	4.6	5.6
R id: intens	token	22	10	32	4.8	6.2
	value	21	8	29	4.6	5.6
R id: circ	token(circ)					
	value(circ)					
R id: poss	token(poss)					
	value(poss)					
<i>oblique</i>	assigner		1	1		0.2
behavioural <i>oblique</i>	behave	9		9	2.0	1.7
	behaviour					
	phenomenon(b)	1		1	0.2	0.2
verbal <i>oblique</i>	sayer	47	1	48	10.3	9.3
	receiver	14		14	3.1	2.7
	verbiage	7		7	1.5	1.4
	target					

existential	existent	6	1	7	1.3	1.4
	Total	457	58	515	100	100
	Count of different Participant roles used	16	12	17		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, receiver, attribute; initiator	177	19	196	38.7	38.1
mental	sensor, phenomenon; inducer	62	9	71	13.6	13.8
relational		134	28	162	29.3	31.5
attribution identification	carrier, attribute, beneficiary, attributor	91	9	100	19.9	19.4
	token, value; assigner	43	19	62	9.4	12.0
behavioural	behaviour; phenomenon(b)	10		10	2.2	1.9
verbal	sayer, receiver; verbiage, target	68	1	69	14.9	13.4
existential	existent	6	1	7	1.3	1.4
		457	58	515	100	100

The use of Participants must reflect the type of Process; both are gathered here in summary of Table 4. 3-21 and presented in descending order of frequency of (Process) use:

	Processes %	Participants %
material	43.1	38.1
relational	22.6	31.5
verbal	15.1	13.4
mental	14.0	13.8
behavioural	3.2	1.9
existential	1.9	1.4
Total	100	100

In total, there are 457 Participants in ranking clauses and 19 in non-ranking clause, making a total of 515 Participants. These are spread among 18 Participant roles.

Table 4. 3-22 collates information about the use of the indirectly involved Participants that are counted in Table 4. 3-21.

Table 4. 3-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 5 Narratives)

Range of Participant roles used, directly and obliquely involved with the Process						
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	<i>direct</i>	<i>oblique</i>	<i>Total</i>			
material	2	6	8	2	2	4
mental	2	1	3	2		2
relational	4	3	7	4	1	5
attributive	2	2	4	2		2
identifying	2	1	3	2	1	3
behavioural	1	2	3	1	1	2
verbal	2	2	4	2	1	3
existential	1	0	1	1	0	1
Total	12	14	26	12	5	17

In Table 4. 3-22, comparing Column C with Column B(i) shows that all available directly-related Participant roles are used in Year 5 Narratives. The directly involved Participant roles thus account for 12 of the 18 that are chosen. The remaining 6 roles are used as per Column D, which shows that the material clauses employ 2 Participants that are obliquely involved, and in relational, behavioural and verbal clauses there is the use of one oblique Participant role.

Marrying this information with that in the previous table, we can be more specific. Material clauses employ 4 of the 8 available Participant roles, 2 of which are obliquely related to the Process: recipient (9) and scope (8). One relational identifying clause makes use of the all Participant roles. One behavioural clause uses one of two oblique participants, phenomenon (1). Verbal clauses employ 3 of the 4 available roles, including the oblique verbiage (2).

4.3.3.2.2 Realisation – form of Participants (Year 5 Narratives)

Table 4. 3-23 Summary of forms taken by participants (Year 5 Narratives)

Participants in ranking clauses					Participants in embedded clauses					All
noun group	adjectival group	clause	prepositional phrase	adverbial group	noun group	adjectival group	clause	prepositional phrase	adverbial group	Total
408	21	15	10	3	53	1		1	3	515
444					53					
457					58					

Table 4. 3-23 gives an overview of the forms taken by the Participants in this text-group. The noun group dominates, both in ranking clauses (408) and in other clauses (53). Next most common in the ranking clauses are adjectival nominal groups (21), clauses (15), prepositional phrases (10) and adverbial groups (3). There are 3 adverbial groups acting as Participants in embedded clauses, where there are also one adjectival group and one prepositional phrase. Further details are in Table 4. 3-24.

Table 4. 3-24 Detail of forms taken by Participants (Year 5 Narratives)

A	B	C	D	E	F	G	H	I	J	K	L				
	Participants in ranking clauses					Participants in embedded clauses					Both				
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total				
	noun group	adj. group	clause			noun group	adj. group	clause							
Nominal groups															
One group	396	21	15	10		53	1		1		497				
Single function (Head only)	288	19	15	3		41	1		1		368				
Pre-mod + Head (no post-mod)	82			7		12					101				
Post-mod (may be pre-mod)	26	2									28				
Two+ groups	12											12			
Adverbial groups															
One group					3					3	6				
Head only					3					3	6				
Pre-mod + Head															
Post-mod															
Two+ groups															
Summary of forms taken by Participants															
Noun groups	408					53					461				
Adj. nominal groups						21						1	22		
Clauses											15			15	
Prepositional phrases												10		1	11
Adverbial groups													3		3
Total all	457					58					515				

Let us first consider ranking clauses. The noun groups are predominantly single function (288 cases). Next in frequency are the 82 instances with a pre-modifying function. Then come 26 examples with a post-modifying function. Finally, 12 nominal group complexes bring up the total of 408 noun group cases. Turning now to the 21 instances of adjectival nominal group, 19 are Head only and 2 involve a post-modifying function. Next in frequency is the use of a whole clause as the nominal group – 15 cases. Prepositional phrases as Participants number 10. Finally, there are 3 adverbial groups acting as Participant.

Consider now the non-ranking clauses. Of the 53 noun groups, most (41) are Head only, and 12 incorporate a pre-modifying function. The remaining examples in non-ranking clauses are a nominal group with single adjective as Head, and a prepositional phrase involving one noun group of Head only.

Table 4. 3-25 instances forms taken by the Participants in Year 5 Narratives.

Table 4. 3-25 Examples of forms taken by Participants (Year 5 Narratives)

Function feature	Form	Example	Participant Roles	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	noun group	Thunder (10. Cassie)		thing
	noun group	that <i>in</i> that can't be true (9. Alice)		determiner
	adj group	imbaressing (11. Gordy)		Epithet
	clause	just [[that today is my birthday]] (9. Alice)	value	fact
	clause	[[they stopped fighting]] (9. Alice)	value	fact
	clause	[[why Sleeping Beauty and Rapunzul were fighting over cake.]] (9. Alice)	phenom	macrothing: Wh-clause
	clause	[[what it was]]. (10. Cassie)	phenom	Wh-clause
	clause	[[Crawling on her]] (10. Cassie)	value	act
	clause	[[what happened to us]] (10. Cassie)	verbiage	Wh-clause
	clause	[[exactly what happened]]. (10. Cassie)	verbiage	Wh-clause
	clause	[[the princapal whisper]]. (11. Gordy)	phenom	macro – act
	clause	[[who did this]] (11. Gordy)	actor	macro-thing: Wh-clause
	clause	[[that she always destroyed their plans]] (11. Gordy)	token	meta – fact
	clause	[[where I'm going]]. (11. Gordy)	phenom	macro-thing: Wh-clause
	clause	[[Just starring at her]] (11. Gordy)	phenomenon (b)	macro – act
	clause	[[were "Tom Darks" was in]]. (11. Gordy)	attribute (cir:att)	macro-thing: Wh-clause
	clause	[[what was inside]] (11. Gordy)	goal	macro-thing: Wh-clause
	clause complex	[[who found out // it was him]] (11. Gordy)	value	macro-thing: Wh-clause
with Pre-mod function	noun group	a small family of snakes.(10. Cassie)	goal	Focus – re-counting
	noun group	a flock of about 9 toucans [[flying up to a tree //to collect berries]]. (10. Cassie)	phenom	Focus – re-counting
	noun group	one of them (11. Gordy)	actor	Focus – selecting
	noun group	one of the "Gage Girls" (11. Gordy)	sayer	Focus – selecting
	noun group	all [[I needed]] (11. Gordy)	value	Focus – selecting
	prep phrase	at the back of the classroom (11. Gordy)	attribute (cir:att)	Focus –

Function feature	Form	Example	Participant Roles	Note
				perspective
	noun group	some of her trees leaves (12. Sara)	attribute: possessed (poss:pr/carr:p'r)	Focus – selective
	noun group	a large pile of flowers of nectar, crumbs and the kings favourite food, Zaccardas. (12. Sara)	existent	re-counting
With Post- mod function	noun group	People on the boat (10. Cassie)	senser	Qualifier – phrase
	noun group	someone in their class (11. Gordy)	actor	Qualifier – phrase
	noun group	the lesson of values." (11. Gordy)	phenom	Qualifier – phrase
	noun group	I ... [with my eyes [[closed]]] (11. Gordy)	goal	Qualifier – phrase, contains noun group with Qual clause
	noun group	the initials for the "Destroyer" (11. Gordy)	value	Qualifier – phrase
	noun group	an incerdent with a old teacher [[called Mrs Pinkey]]. (11. Gordy)	attribute: possessed (poss:pr/carr:p'r)	Qualifier – phrase
	noun group	his lesson of values. (11. Gordy)	phenom	Qualifier – phrase
	noun group	the one in the rainforest!" (12. Sara)	value	Qualifier – phrase
	noun group	a walking track [for humans [[to see the large, lush green rainforest]]]. (12. Sara)	attribute	Qualifier – phrase
Qualifier (clause)	noun group	a surprise party [[planned]]. (9. Alice)	attribute: possessed(poss :pr/carr:p'r)	Qualifier – clause
	noun group	a flock of about 9 toucans [[flying up to a tree // to collect berries]]. (10. Cassie)	phenom	Qualifier – clause
	noun group	a ship [[coming past]]. (10. Cassie)	phenom	Qualifier – clause
	adj group	lucky [[there wasn't any bites on us]]. (10. Cassie)	attribute	Qualifier – clause
	noun group	a class [[called 3Z]] (11. Gordy)	carrier: possessor(poss:p r/carr:p'r)	Qualifier – clause
	noun group	one club [[left]] (11. Gordy)	existent	Qualifier – clause
	noun group	no idea [[what or who that meant]]. (11. Gordy)	scope	Qualifier – clause
	noun group	{my} turn [[to fulfill the deal]] (11. Gordy)	token	Qualifier – clause
	noun group	time [[to go home]] (11. Gordy)	value	Qualifier – clause
	noun group	all [[I needed]] (11. Gordy)	value	Qualifier – clause
	noun group	a way [[to prove // it was him]] (11. Gordy)	goal	Qualifier – clause
	noun group	proud [[I had solved the case]] (11. Gordy)	attribute	Qualifier – clause
	noun group	The only food [[we can get]] (12. Sara)	token	Qualifier – clause
	adj group	only enough [[to feed 1 person]]. (12. Sara)	goal	Qualifier – clause

Function feature	Form	Example	Participant Roles	Note
	noun group	a large backpack [[to put their food in]]. (12. Sara)	goal	Qualifier – clause
	noun group	some insects [[he had caught a few days earlier]]. (12. Sara)	attribute: possessed(poss:pr/carr:p'r)	Qualifier – clause
	noun group	a great place [[to look for food]]. (12. Sara)	attribute	Qualifier – clause
	noun group	whatever [[you like]]." (12. Sara)	goal	Qualifier – clause
multiple Qualifiers	noun group	only three people with the initials of "TD" [[(who) hated the school libarien]]. (11. Gordy)	existent	Qualifier – phrase then clause
Two+ groups				
with Pre-mod Head only	noun group	My family and I (10. Cassie)	actor	para exten
Head only with Pre-mod	noun group	dirt and lots of trees. ((10. Cassie)Focus	attribute: possessed (poss:pr/carr:p'r)	para exten
with Pre-mod Head only	noun group	my sisters and I (10. Cassie)	actor	para exten
with Post- mod Head only	noun group	the one [[that hated the libarien the most]], "The Gage Girls". (11. Gordy)	value	para elab
with Pre-mod Head only with Post- mod	noun group noun group noun group	their leader spice attack, the meanest and roughest person in the play ground. (11. Gordy)	phenom	para elab para elab
with Pre-mod Head only (cl)	noun group clause complex	one thing - [[what the person called theirself //and it was "The Destroyer"]]. (11. Gordy)	phenom	para elab
Head only Head only Head only	noun group noun group noun group	Teddy Donut, Tom Darks and Treak Debhead. (11. Gordy)	token	para exten para exten
with Post- mod with Pre-mod	noun group noun group	ripped paages in books and two graffiti cans. (11. Gordy)	goal	para exten
Head only with Pre-mod	noun group noun group	Danny, the head chef. (12. Sara)	sayer	para elab
Head only with Post-mod	noun group noun group	Zan Zan, the king of all the colony. (12. Sara)	sayer	para elab
with Pre-mod with Pre-mod	noun group noun group	a ride and some of his grass. (12. Sara)	goal	para exten
with Pre-mod Head only noun gp cmplx	noun group noun group noun gp cmplx	a large pile of flowers of nectar, crumbs and the kings favourite food, Zaccardas. (12. Sara)	existent	para exten para exten (para elab)
with Post-mod with Post-mod with Post-mod with Pre-mod with Pre-mod noun gp cmplx	noun group noun group noun group noun group noun group noun gp cmplx	some eucalyptus leaves from a koala, some extra water just incase, some insects, from a frog, some grass from a wallaby, nectar flowers, some human crumbs and your favourite, zaccardas." (12. Sara)	goal	para exten para exten para exten para exten para exten (para elab)
Adverbial groups				
Head only	adverbial group	home <i>in</i> Granny was not home (9. Alice)	attribute (cir:att)	
	adverbial group	where <i>in</i> where the toucans are (11. Gordy)	attribute (cir:att)	
	adverbial group	where <i>in</i> where all bullys are (11. Gordy)	attribute (cir:att)	

Function feature	Form	Example	Participant Roles	Note
	adverbial group	where <i>in</i> where Tom Darks was (11. Gordy)	attribute (cir:att)	
	adverbial group	here <i>in</i> "why are you here?" (11. Gordy)	attribute (cir:att)	
	adverbial group	inside <i>in</i> what was inside (11. Gordy)	attribute (cir:att)	

4.3.3.3 Circumstances (Year 5 Narratives)

4.3.3.3.1 Functional types of Circumstances (Year 5 Narratives)

Table 4. 3-26 Types of Circumstances (Year 5 Narratives)

Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive	1		1	0.9	0.8
accomp: comitative	2		2	1.8	1.6
angle: source					
angle: viewpoint					
cause: behalf	1		1	0.9	0.8
cause: purpose	2		2	1.8	1.6
cause: reason	1	1	2	0.9	1.6
contingency: concession	1		1	0.9	0.8
contingency: condition					
contingency: default					
extent: distance					
extent: duration	1		1	0.9	0.8
extent: frequency	3		3	2.7	2.4
location: place	50	8	58	44.2	46.8
location: time	31	1	32	27.4	25.8
manner: comparison	1		1	0.9	0.8
manner: degree	2	1	3	1.8	2.4
manner: means	2		2	1.8	1.6
manner: quality	12		12	10.6	9.7
matter	3		3	2.7	2.4
role: guise					
role: product					
Total	113	11	124	100	100
%	91	9	100		
Count of different types of Circumstances used	15	4	15		

Circumstances are tabulated in Table 4. 3-26. Location dominates. Location:place occurs 50 times in ranking clauses and 8 times in embedded clauses; location:time occurs 31 times in ranking clauses and once elsewhere. Together these make up almost three-quarters of the circumstances. The only other Circumstance that occurs more than three times is manner:quality, with 12 occurrences. Twelve other Circumstances occur between 1 and 3 times. Only seven other types of Circumstances do not occur at all in this text-group.

4.3.3.3.2 Realisation – form of Circumstances (Year 5 Narratives)

Table 4. 3-27 Summary of forms taken by Circumstances (Year 5 Narratives)

Circumstances in ranking clauses			Circumstances in embedded clauses			All
prepositional phrase	noun group	adverbial group	prepositional phrase	noun group	adverbial group	Total
66	12	35	5	1	5	124
113			11			

The most common forms taken by Circumstances are prepositional phrases and adverbial groups, at frequencies of 66 and 35, respectively, in ranking clauses and 5 and 5, respectively, in other clauses (Table 4. 3-27). Noun groups appear 12 times in ranking clauses and once in embedded clauses.

Table 4. 3-28 Detail of forms taken by Circumstances (Year 5 Narratives)

A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	64	12		5	1		82
Single function (Head only)	19			4			23
Pre-mod + Head (no post-mod)	41	8		1	1		51
Post-mod (may be pre-mod)	4	4					8
Two+ groups	2						2
Adverbial groups							
One group			32			5	37
Head only			29			4	33
Pre-mod + Head (no Post-mod)			2			1	3
Post-mod (may be pre-mod)			1				1
Two+ groups			3				3
Summary of forms taken by Circumstances							
Prepositional phrases	65			5			71
Noun groups	12			1			13
Adverbial groups			35			5	40
Total all	113			11			124

Referring to Table 4. 3-28, and the ranking clauses, of the 66 prepositional phrases that realise a Circumstance, most (41) utilise a nominal group with a pre-modifying function (e.g. *to one of the classrooms*). Four (4) employ a post-modifier (e.g. *about the icerdent [in the library]*) and two (2) involve a nominal group complex (e.g. *about*

cake and [[how it was supposed to be chocolate not strawberry]]). After prepositional phrases, the next most used form is the adverbial group with 35 instances (e.g. *very quickly*). A noun group appears 12 times as a Circumstance, 8 times with a pre-modifying function (e.g. *all the way back to our new home*) and 4 with a post-modifying function modifier (e.g. *Next thing [[I know]]*). Now turning to the non-ranking clauses, adverbial groups are used 5 times, prepositional phrases appear 5 times (4 times with a noun of Head only; 1 time with noun with pre-modifying function). A noun group appears 1 time (with a pre-modifier). Sample circumstances are set out in Table 4. 3-29.

Table 4. 3-29 Examples of forms taken by Circumstances (Year 5 Narratives)

Function feature	Form	Example	Functional type	Note
Prepositional phrases / nominal groups				
One group				
Head only (including clause as Head)	prep phrase	for food (10. Cassie)	cause: purpose	
	prep phrase	after wolf (9. Alice)	location: place	
	prep phrase	to [[where to toucans were]] (10. Cassie)	location: place	
with Pre-mod function	noun group	all [of] the way back to our new home {c.f. half of} (DFG 170) (10. Cassie)	location: place	Focus – selecting
	prep phrase	to one of the classrooms (11. Gordy)	location: place	Focus – selecting
	prep phrase	with all the other mosquitoes. (12. Sara)	accomp: comitative	Focus – selecting
with Post-mod function	prep phrase	on the way [here] (9. Alice) or group complex prep phrase and adverb	location: time	Qualifier – phrase
	noun group	all the way back [to our new home] (10. Cassie) group complex prep phrase and adverb	location: place	Qualifier – phrase
	noun group (Head≠Thing, elliptical)	One [at a time] (10. Cassie) One at a time we jumped onto the rubber raft.	manner: quality	Qualifier – phrase
	noun group (Head≠Thing, elliptical)	one [by one] (11. Gordy) ... and I asked them one by one.	manner: means	Qualifier – phrase
	prep phrase	about the icerdent [in the library]." (11. Gordy)	matter	Qualifier – phrase
	prep phrase	as much [as [[we could]] (10. Cassie)	manner: degree	Qualifier – clause
	noun group	Next thing [[I know]] (11. Gordy)	location: time	Qualifier – clause
	prep phrase	with my underpants [[showing]] (11. Gordy)	manner: quality	Qualifier – clause
Two+ groups				

Function feature	Form	Example	Functional type	Note
Head only Head only	prep ph with complexing in noun group	about cake and [[how it was supposed to be chocolate not strawberry]]. (9. Alice)	matter	para exten (para exten in thing)
Head only Head only Head only	prep ph with complexing in noun group	about history and BC [and] [[what it stood for]]. (11. Gordy)	matter	para exten para exten
Adverbial groups				
adv modification	adv group	back down (10. Cassie)	location: place	enh
	adv group	very quickly (11. Gordy)	manner: quality	
	adv group	long ago (12. Sara)	location: time	
	adv group	just incase (12. Sara)	cause: purpose	
adv expansion	adv group	faster and faster (10. Cassie)	manner: quality	ext
	adv group	over and over again (10. Cassie)	extent: frequency	ext
	adv group / noun group complex	So tomorrow, oh I mean Monday (11. Gordy)	location: time	elab

4.3.3.4 The Nominal Group – a special case (Year 5 Narratives)

In this section are collected together the nominal groups from the Participants and Circumstance, from both ranking and embedded clauses, from the Year 5 Narratives.

Table 4. 3-30 Nominal groups (Year 5 Narratives)

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	328	47	36	411	48.8	61.2
Head=Thing	299	43	27	369	44.5	54.9
Head≠Thing, elliptical	10	3	5	18	1.5	2.7
Head≠Thing, Epithet	19	1	4	24	2.8	3.6
Pre-mod + Head only	138	14	59	211	20.5	31.4
Head=Thing	128	13	54	195	19.0	29.0
Head≠Thing, elliptical	2	1		3	0.3	0.4
Head≠Thing, Epithet			1	1		0.1
Head≠Thing, focus	8		4	12	1.2	1.8
Post-modification	36		14	50	5.4	7.4
with qualifying phrase	14		9	23	2.1	3.4
with qualifying clause	21		5	26	3.1	3.9
with multiple qualifiers	1			1	0.1	0.1
Total	502	61	109	672	74.7	100

The overall conclusions from Table 4. 3-30 are that a majority of the nominal groups contain a single function only (411 from 672 nominal groups, or 61.2%) and that still quite a large minority contain a pre-modifying function (211 from 672 nominal groups, or 31.4%). A smaller minority contain a post-modifying function (50 from 672 nominal groups, or 7.4%).

Now we will look briefly at the three sections of Table 4. 3-30. Firstly, of the single function nominal groups, by far the most are conventional noun groups, where the Head conflates with Thing (369 from 411 or 89.7%). A few are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet (24 of 411, or 5.8%) and 18 have the Head conflated with an element other than an Epithet (denoted as *(Head≠Thing, elliptical)* in the table) (4.4%). Secondly, of the nominal

groups consisting of pre-modifier + Head, again by far the most have Head conflated with Thing (195 of 211, or 92.4%), leaving only 6.6% to be accounted for by usage involving elliptical Heads, of which those involving Focus are 6.2%. Thirdly, in the 7.5% of clauses that contain a post-modifying element, most contain a qualifying clause (26 of 50 or 52%), 23 of 50 (or 46%) contain a qualifying phrase, leaving one instance of a nominal group that had multiple qualifiers (1 in 50, or 2%).

Examples of nominal groups appear in Table 4. 3-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the first position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 4. 3-31 Examples of nominal groups (Year 5 Narratives)

Total	% Total	Feature	Example		Notes/type
411	61.2	single function – Head only			
369	54.9	Head=Thing	pronouns (74.0%); common nouns (12.5%); proper nouns (13.6%). (Some multi-words e.g. <i>Little Red Riding Hood</i> & word complexes e.g. <i>Hansel and Gretel</i> .) (Personal pronouns 64.8%.)		
18	2.7	Head≠Thing, elliptical	<i>That</i> in <i>That can't be true!</i> (12. Sara) <i>some</i> in <i>well lets find some</i> (11. Gordy)		deictic only
24	3.6	Head≠Thing, Epithet	<i>chocolate not strawberry</i> in <i>The cake was chocolate not strawberry</i> (9. Alice) <i>rough</i> in <i>the waves were rough</i> (10. Cassie)		para extension in Epithet
211	31.4	Pre-mod + Head only			
195	29.0	Head=Thing	SEE TABLE BELOW		
3	0.4	Head≠Thing, elliptical	<i>the next</i> in <i>We went swimming some days, and fishing the next.</i> (10. Cassie)		
1	0.1	Head≠Thing, Epithet	your favourite (12 Sara)		
12	1.8	Head≠Thing, focus	a flock of about 9 toucans (10. Cassie)		focus – selecting
50	7.4	Post-modification			
23	3.4	with qualifier – phrase	single function (Head=Thing)	People on the boat (10. Cassie)	
			with Pre-mod (Head=Thing)	a walking track for humans (12. Sara)	
			with Pre-mod (Head=Thing)	an incerdent with a old teacher [[called Mrs Pinkey]]. (11. Gordy)	qualifying phrase with embedded clause
26	3.9	with qualifier – clause	single function (Head≠Thing, Epithet)	lucky [[there wasn't any bites on us]]. (10. Cassie)	relative clause as qualifier
			with Pre-mod (Head=Thing)	a ship [[coming past]]. (10. Cassie)	non-finite clause as qualifier
			with Pre-mod (Head=Thing)	my turn [[to fulfill the deal]] (11. Gordy)	non-finite clause as qualifier
1	0.1	with multiple qualifiers	with Pre-mod (Head=Thing)	only three people with the initials of "TD" [[(who) hated the school libarien]]. (11. Gordy)	<i>with 2 qualifiers – phrase, finite relative clause</i>
671	100	Total			

Concerning the question of how the Head is modified, it may be concluded that simple nominal groups of Head only are more common than those with pre-modifying functions by almost double (411:211) and about eight times more common than those with post-modifying elements (411:50).

Now we will focus on the highlighted row from Table 4. 3-30, shown again for convenience here:

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	328	47	36	411	48.8	61.2
Head=Thing	299	43	27	369	44.5	54.9
Head≠Thing, elliptical	10	3	5	18	1.5	2.7
Head≠Thing, Epithet	19	1	4	24	2.8	3.6
Pre-mod + Head only	138	14	59	211	20.5	31.4
Head=Thing	128	13	54	195	19.0	29.0
Head≠Thing, elliptical	2	1		3	0.3	0.4
Head≠Thing, Epithet			1	1		0.1
Head≠Thing, focus	8		4	12	1.2	1.8
Post-modification	36		14	50	5.4	7.4
with qualifying phrase	14		9	23	2.1	3.4
with qualifying clause	21		5	26	3.1	3.9
with multiple qualifiers	1			1	0.1	0.1
Total	502	61	109	672	74.7	100

Table 4. 3-32 will display the range of configurations of pre-modifying elements Deictic, Post Deictic, Numerative, Epithet, Classifier and Thing used in nominal groups where the Head conflates with the Thing.

Table 4. 3-32 Pre-modification in the nominal group (Year 5 Narratives)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing				
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing	2	1.0	some extra water (9. Sara)	the same thing (11. Cassie)
DeicticNumerativeEpithetThing				
Deictic/NumerativeThing	4	2.0	no more food (9. Sara)	a few questions (12. Gordy)
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing	1	0.5	The crystal clear, salt water (11. Cassie)	
DeicticEpithetEpithetEpithetThing	1	0.5	the large lush green rainforest (9. Sara)	
DeicticEpithetEpithetThing	1	0.5	a large walking track (9. Sara)	
DeicticEpithetThing	27	13.6	a funny thing (10. Alice)	the rubber raft (11. Cassie)
DeicticClassifierClassifierThing				
DeicticClassifierThing	10	5.0	One Sunday afternoon (11. Cassie)	their drink bottles (9. Sara)
DeicticThing	131	67.8	My Granny's house (10. Alice)	the koala (9. Sara)
Deictic2Thing				
Deictic2ClassifierThing	1	0.5	Another Rainforest Quest (9. Sara) (fused d/d2)	
NumerativeClassifierThing	1	0.5	two graffiti cans (12. Gordy)	
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing				
NumerativeThing	12	6.0	lots of trees (11. Cassie)	most people (12. Gordy)
EpithetClassifierThing				
EpithetEpithetThing	1	0.5	dark grey and black clouds (11. Cassie)	
EpithetThing	1	0.5	ripped pages in books (12. Gordy)	
ClassifierClassifierThing				
ClassifierThing	2	1.0	venimous spiders (11. Cassie)	nectar flowers (9. Sara)
25 Total	195	100		
Count of different configurations used	14			

Of the 25 available patterns, 14 were used (56%). The most used configuration is DeicticThing (131, or 67.2%). Next most common uses the addition of a single Epithet – DeicticEpithetThing (27, or 13.8%). There are 12 instances of NumerativeThing (6.2%), 10 instances of DeicticClassifierThing (5.1%), 4 of DeicticNumerativeThing (2.1%) and 2 each only of ClassifierThing (1.0%) and DeicticDeictic2Thing (1.0%). The 7 other configurations have only one (1) instance

each in the Year 5 Narratives (0.5% each): DeicticEpithetClassifierThing, DeicticEpithetEpithetEpithetThing, DeicticEpithetEpithetThing, Deictic2ClassifierThing, NumerativeClassifierThing, EpithetEpithetThing, EpithetThing. It seems that Year 5 students are willing to experiment with the pre-modifier in the nominal group.

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 32 of the 195 (16.4%) involve the use of Epithets, three of them using more than one. Fourteen (14) nominal groups use a Classifier, (7.2%) (using 4 configurations, of which one is in company with an Epithet).

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres. In the case of the Year 5 Narratives, 17 (or 8.7%) noun groups do not use a deictic.

There is any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

We now turn to look at the comparable features in Year 6 Narratives.

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4.4 Findings: Year 6 Narratives

4.4.1 Whole text information (Year 6 Narratives)

4.4.1.1 Text 13. India, Here We Come! by April

Table 4. 4-1 Text 13. India, Here We Come! (April, 6/N)

13. India, Here We Come! (April, 6/N)	Stages
Hi, my name is Elizabeth Connor, but all my friends call me Ellie. I just got told some horrible news, alright this is what happened.	Orientation
<p>One very rainy afternoon I come home feeling so angry about how much homework Mrs. Specks gave us and to make things worse, Dad was waiting for me with a 'big surprise.' To my disappointment I found out that we were going to India for a holiday when I am supposed to be going on our school camp.</p> <p>Anyway that's the news. We are leaving in three days because Dad has already booked the tickets.</p>	Complication
<p>The day has finally come, right now I am lining up to get onto the plane and my arms and legs are aching ... Now I am on the plane and my plan is to sleep until we get there, India here we come!</p> <p>It is 7.06 am and I have to admit that Delhi is beautiful. I am on a bus which is really stuffed and I was lucky enough to get a seat next to a girl about my age while Dad is standing up. She seems very nice and speaks english. Also she says her name is Aamani and she is catching a bus with her mum back to a place called Mumbai, which is a coincidence because that is where I am going. Aamani is telling me how big Mumbai is and that it makes the most movies in the world.</p> <p>After a while we got to the hotel and Aamani's house was only walking distance away. I have only been in India for a couple of hours and already I have found a friend. So far so good!</p> <p>.....</p> <p>I have been in India for two weeks and I have had the best holiday ever so far. Today Aamani showed me around all the colourful shops in Mumbai and Dad gave me 10 rupees to spend, which I used to buy a beautiful purple and pink sari which I haven't taken off since I brought it. Tomorrow on the 21st of October we are going to Dwali which is the festivals of lights for a whole day and we invited Aamani and her mum to come. I can't wait because I am wearing my sari.</p> <p>It was fantastic! I am so tired and I am sleeping off[sic] Aamani's house. We ate beautiful curries and danced all day. Unfortunately I have to leave soon but Aamani and I</p>	Resolution

<p>promised that we would stay friends.</p> <p>.....</p> <p>The day has come, I am going back home. I am excited in one way but sad in the other.</p> <p>Aamani and I are going to be pen pals so we can stay in contact.</p> <p>Here we go we just landed in Sydney airport.</p> <p>I have thanked Dad so much and he promised that in two year we are going back.</p>	
I am so glad, in the end that I went to India because it turned out fantastic after all!	Coda

Table 4. 4-2 Text 13. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
34	10	24	77	7	1	211	489	2.7	6.4

4.4.1.2 Text 14. The 3 Wishes, by Jess

Table 4. 4-3 Text 14. The 3 Wishes (Jess, 6/N)

14. The 3 Wishes (Jess, 6/N)	Stages
<p>A long time ago in a small town called Hokkaido, Japan 1899, there lived a young lady called Lee Tong. She lived on a farm with only the company of her animals. Life was good.</p> <p>There were many shops and stalls in Japan. Lee Tong worked on one of the stalls which sold kimonos. Kimonos are dresses which are used in Japan for special occasions. She had been making kimonos since the age of 15.</p> <p>One bright sunny morning Lee Tong woke up by the sound of traffic. Japan was one of the busiest country in Asia. It was also very polluted. Lee Tong jumped out of bed and got dressed. When she had finished with her morning routine, she gathered some kimonos and everything she needed for her stall. She then left her small house and said hello to her farm animals. It was 6:15 am so Lee Tong started to walk to the train station. She was just in time to catch the Bullet Train to her stall. The Bullet Train is the fastest way to travel on land in Japan. It travels at a speed of 270 k per hour. Lee Tong got to work in less than 20 minutes. She set up her stall next to a man who was selling sushi. Lee Tong waited for her first customer.</p>	Orientation
<p>1 hour passed. Lee Tong still didn't have any customers. She sighed loudly, beginning to feel fed up. The day was becoming hot. Lee Tong started to pack up her kimonos.</p>	Complication
<p>Then she heard a noise. Lee Tong turned around and saw a little, old, ugly man standing in front of her. She gasped at the sight. He wore dirty and tattered clothes and looked like he hadn't washed in years. "O-hayo goza imasu," he said. It meant good morning in japanese[sic]. Lee Tong, I have been watching you. I am going to give you 3 wishes , but you must use all 3 by 12:00 today." The man said. Lee Tong was confused and before she could ask him who he was he disappeared. She wasn't sure if she believed the small man. She decided to try it out. "I wish I was rich." Lee Tong closed her eyes and when she opened them she was at home. She looked around and was surrounded by millions of yen. Yen is the japanese currency. "I'm rich." Lee Tong screamed. This had to be the best day of her life. Now, what could be my 2nd wish, she thought. "I know!" She ran outside and to her amazement, Lee Tong saw a crowd running towards her. They surrounded her, yelling and screaming for her autograph. She ran back inside and locked the door. "Phew." Lee Tong said. She looked at the time. 11:55! "Oh no!" she said. Lee Tong had one more wish and only 5 minutes to use it. Time was running out.</p>	Resolution

<p>Lee Tong paced the room. She stared at all the yen in the room. Then it hit her. Becoming rich and famous didn't solve anything. Lee Tong didn't need yen to make her happy. She was happy without it. So she made her last wish. "I wish everything was back to normal." And it was.</p> <p>The next day when Lee Tong woke up everything was a usual again. She was happy and life was good</p>	
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Table 4. 4-4 Text 14. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
64	38	26	95	11	0	296	554	3.1	5.8

4.4.1.3 Text 15. Kabul's Story, by Kay

Table 4. 4-5 Text 15. Kabul's Story (Kay, 6/N)

15. Kabul's Story (Kay, 6/N)	Stages
<p>This is a story about a eight year boy named Kabul who lost his leg, he lives in poverty this is his story.</p> <p>[map, with Kokoda track in red]</p>	Orientation
<p>One day in the village of Ukarumpa which is 500m East of the Kokoda track in Papua New Guinea Kabul, a boy who lived in poverty woke up, "Kabul, you[sic] rice is ready." his mother Yasa said. Kabul jumped off the floor (his bed) and walked over to the planks they used for a table. After he had ate his meagre meal his father, Baiterheiro, walked in and said "There is a war here Yasa, I will take Kabul out to see if we can find scraps of food before it gets to[sic] close to Ukayumpa." "OK said Yasa" I will stay with Jara and lfe." Baitoheiro and Kabul walked out.</p> <p>While they were walking Kabul could here[sic] faint gunshots and yelling. Suddenly Baitoheiro said "Hi Yaga." A man turned around and greeted Baitoheiro then two other men turned around and greeted Kabuls[sic] father too. Baitoheiro explained to Kabul that these were fellow Ukarumpan villagers. Yaga, Kaikoa and Obi. Suddenly a gun-shot sounded quite close and a yell came and a man thuded[sic] to the ground, his head had a large gash that was bleeding badly. Kabul's father and friends started to pick the man up, when a gun shot sounded so loud and then.... a bullet peirced [sic] Kabul's leg, he fell in pain and started to roll down a steep cliff. At last he fell with a thud to the ground, with tears running down his face he sat up and looked at his leg, blood was pouring out of the wound. After 6 hours two nuns walked pass[sic]. With terrified looks on their faces one of them picked him up.</p>	Complication
<p>Nun's House</p> <p>At the Nun's'[sic] house they sat Kabul on a hard yet cushoiny[sic] bed but the pain was all he could think about, one of the nuns pulled off his scrubby shorts to get a better look at the wound, the nun grabbed a cloth and a bucket of clean water and cleared the blood, once that was done the two robed women mumbled a few words and then said "Young one, we are sorry but you might want to shut your eyes." confused Kabul shut his eyes then a searing pain went through his leg, worse than the gunshot. He opened his eyes and there was blood everywhere, both nuns were crying and started to clean up the blood, Kabul fainted.</p> <p>3 Days later</p> <p>Kabul woke up in a small bed, he looked around, there was a small cupboard a wooden</p>	Resolution

<p>table and a pair of crutches. A nun walked in and said “Dear, you have woken up, grab your crutches and come with me.” They walked down a corridor[sic] and into a small room, they sat down and she explained that he was in an orphanage and he had been adopted by an Australian couple. They came to pick him up, they were leaving tomorrow.</p> <p>The next day Kabul was saying goodbye to his best friend at the orphanage when his foster mother to an image. An hour later they boarded the ship and Kabul was told that the soldiers in World War II were still invading his birth country.</p>	
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Table 4. 4-6 Text 15. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
42	15	27	86	4	1	283	538	3.3	6.3

4.4.1.4 Text 16. Ank-Mee and the Red Robin! by Lily

Table 4. 4-7 Text 16. Ank-Mee and the Red Robin! (Lily, 6/N)

16. Ank-Mee and the Red Robin! (Lily, 6/N)	Stages
One day, long ago, Ank-Mee was making dinner, when she heard a chirping sound. Curious, she went out, she found a red, small pretty bird, chirping at her. She went back inside, and came out with a little bit of cheese, she gave it to the bird. The bird happily chirped, and flew up into the mountain.	Orientation
<p>The next day the bird cam again and Ank-Mee gave it some cheese again. This went on for a week, and one day, when Ank-Mee was waiting for the bird, she felt strange, she some-how knew it wasn't going to come. She could feel it was in trouble.</p> <p>She then heard chirping from the most dangerous steep hill in the village. It was the red bird. She started her journey, she brang a basket and some cheese. She walked through insects, sticks, leaves, and as she got closer and closer to the chirping she found herself getting braver, she had more energy and she finally found Red bird. She took care of it, and she turned it over. she could see two bite marks.</p> <p>"I see, the wolves have got you." Ank-Mee said in a hurting voice. The bird chirped in a soft voice, Ank-Mee then kissed the bird on its chest and left it to rest. While Ank-Mee was going down this dangerous hill, she could only think about the poor bird.</p>	Complication
<p>Later that night she could not get to sleep, she decided she would go and get the poor red bird and bury it, because she thought it would surely be dead by now. She climbed up the rocks and dirt but the bird she loved was gone.</p> <p>Ank-Mee heard a rustling in the trees ... out came a handsome man. He said, "You saved me, and you turned me into a man!"</p> <p>Ank-Mee was astonished and shocked. He went on, "A mean chinese[sic] witch put a spell on me for setting her daughter that she locked up free. I would like to spend the rest of my life with you.</p> <p>Ank-Mee said, "Of course you are welcome!" I would be very pleased.</p>	Resolution
And, of course, they lived happily ever after.	Coda

Table 4. 4-8 Text 16. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
33	13	20	63	4	0	170	358	2.7	5.7

4.4.2 Sentence-level information (Year 6 Narratives)

Texts 13-16 constitute the Year 6 Narratives. An overview of features of this text-group appears in Table 4. 4-9.

Table 4. 4-9 Overview (Year 6 Narratives)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
13	34	10	24	77	7	1	211	489	2.7	6.4
14	64	38	26	95	11	0	296	554	3.1	5.8
15	42	15	27	86	4	1	283	538	3.3	6.3
16	33	13	20	63	4	0	170	358	2.7	5.7
Part B										
T	173	76	97	321	26	2	960	1939		
Av	43.25	19	24.25	80.25	6.5	0.5	240	484.75	3.0	6.0

Texts 13-16 are the Year 6 Narratives. Sentence level characteristics of each text are set out in Table 4. 4-9, summarised in the final 2 rows. From this lower section of the table, it can be seen that the Year 6 Narrative data is contained in 173 sentences, comprised of 76 clause simplexes (44%) and 97 clause complexes (56%). Altogether there are 321 ranking clauses. Of the 321 clauses, 28 contain embedded clauses in some form (Columns F + G) (8.7%) while 293 (91.3%) do not (Columns E – (F + G)). Of the clauses that contain embedding, 26 contain clause-simplexes and 2 contain clause-complexes, a ratio of thirteen to one. The ratio of total words (1939) to lexical items (960) is 2.1:1 and the average lexical density across the 4 texts (clauses÷lexical items) is 3.0. The mean length of each clause is 6.0 words.

Only 1 of the 4 texts utilises more simplexes than complexes, and thus the characterisation of the group would be that the use of clause complexes exceeds the use of clause simplexes, with the ratio being about 1.2:1.

Taking the text-group as a whole, in round figures, each text contains 43 sentences, 19 clause simplex, 24 clause complex and 80 total clauses; clauses with simplex embedding outnumber those with complex embedding 13 to 1; the lexical density is 3 and each clause contains 6 words.

4.4.2.1 Sentence constituents (Year 6 Narratives)

Table 4. 4-10 Sentences and clauses (Year 6 Narratives)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no explicit dependency (simplex)	With paratactic dependency (complex)	With hypotactic dependency (complex)	With dependency of both types (complex)	Total nexuses
1	76	43.9	76				
2	67	38.7		42	26		67
3	20	11.6		4	1	13	40
4	4	2.3				5	12
5	3	1.7		1		2	12
6	2	1.2				1 2	10
7							
8	1	0.6				1	7
Total	173	100	76	47	27	23	148
%			43.9	32.4	18.6	15.5	

In Table 4. 4-9, we see that the 173 sentences in the Year 6 Narratives are made up of 76 clause simplexes and 97 clause complexes. In Table 4. 4-10, these bare figures are fleshed out. As may be seen from Columns A to D of Table 4. 4-10, 76 of 173 sentences, or 43.9%, contain a single clause. As with previous Years, Year 6 Narratives show an overall decrease in frequency with sentence length, with the number of sentence containing 1, 2, 3, 4, 5, 6, 7 and 8 clauses being 76, 67, 20, 4, 3, 2, 0 and 1, respectively (Columns A and B, Table 4. 4-10). Apart from the anomalous 8-clause sentence following no 7-clause sentence, the decrease is steady and steep – more than 94% of the sentences contain three or fewer clauses.

Put another way, the 76 clause simplexes represent 44% of the total clauses, leaving 56% of clauses involved in a complex. The clause complexes are of varying length: 39% are 2 clauses long, 12% are 3 clauses long, 2% are 4, 2% are 5 clauses long, 1% are 6 clauses long and 1% are 8 clauses long.

56% of sentences are clause complexes. In those clause complexes, paratactic relations outnumber hypotactic relations. For example, of the 2-clause sentences, 42 contain a paratactic relation and only 26 a hypotactic relation (Columns E and F). For sentences of more than two clauses, it is usual to have both types of relations. For example, of the 19 3-clause sentences, only 4 contain paratactic relations exclusively

and only 1 contains hypotactic relations exclusively; 13 contain both a paratactic and a hypotactic relation. Put in another way, for sentences of three clauses or more, the usage of a combination of logical relations seems preferred. In this data set, nexuses total 148 (Column H).

Table 4. 4-11 Dependency relations between clauses (Year 6 Narratives)

Nexus type	Count	% of relation type
Paratactic	82	55.4
Hypotactic	66	44.6
Total	145	

Taking into account all relations between clauses, of whatever sentence length, it turns out that 82 (55%) of the 145 are paratactic and the remaining 66 (45%) are hypotactic (Table 4. 4-11).

Table 4. 4-12 shows usage of the logico-semantic relations, expansion and projection.

Table 4. 4-12 Taxis/logico-semantic relations in clause complexes (Year 6 Narratives)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification	1			
		description		10	9	1
	extension	addition: additive	53	4	1	3
		addition: adversative	7			
		variation				
		alternation				
	enhancement	temporal	2	13	13	
		spatial				
		manner				
		cause	3	18	6	12
		conditional		1	1	
projection	locution idea	(speech)	15	10	9	1
		(thought)	1	10	8	2
		Total	82	66	47	19

Column D of Table 4. 4-12 shows the 82 instances of parataxis. All types of *expansion* are utilised: The complexes are expanded through *elaboration*:

clarificaion (1), through *extension: addition* (53 additive and 7 adversative) and through two sub-types of *enhancement* – *enhancement: temporal* (2) and *enhancement: cause* (3). There are 15 instances of *projection: locution* (direct speech), and 1 instance of *projection: idea* (direct ‘thought’).

Column E shows the 66 instances of hypotaxis. Again, all types of *expansion* are utilised – *elaboration: description* (10), *extension: addition* (4), and in *enhancement*, three sub-types – *:temporal* (13), *:cause* (18) and *:conditional* (1). There are 10 instances of *projection: locution* (reported speech) and 10 instances of *projection:idea* (reported thought). These 66 hypotactic clause complexes employ dependent clauses of both finite (47) and non-finite forms (19).

Having concentrated to this point on the make-up of sentences in terms of ranking clauses, the following group of tables transition focus to the occurrences and placements of embedded clauses.

Table 4. 4-13 Dispersion and count of ranking clauses (Year 6 Narratives)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	76	76	12	64
2	68	134	9	125
3	20	60	3	57
4	4	16	2	14
5	3	15	1	14
6	12	12		12
7				
8	1	8		8
Total	173	321	27	294
%			8.4	91.6
Average per text	43.25	79.5	6.75	73.5

Re-focussing from ranking clauses to embedded clauses, Table 4. 4-13 shows that, in sentences of any length, the number of clauses that do not contain embedding substantially exceed the number that do. Over the text-group as a whole, 294 clauses, or 91.6%, do not contain embedding; 27 (or 8.4%) do.

It is that 27 (or 8.4%) of ranking clauses that contain embedding that we are now interested in. We now extend the analysis of Table 4. 4-13, explicating in the main, Column D of that table. Table 4. 4-14 tallies (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the functional constituent element of its host clause (Columns D and E).

Table 4. 4-14 Embedding in ranking clauses (Year 6 Narratives)

A	B	C	D	E	F
Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
Embedded clause/s as Qualifier in a nominal group	19	[[]Q	17	2	lucky enough [[to get a seat next to a girl about my age]] (13. April)
		[[[]Q]]Q			
	1+1	multiQ	1		A long time ago in a small town [[called Hokkaido]] , [(in) Japan] (in) 1899, there lived a young lady [[called Lee Tong]] . (13. April)
	1	[[//]]Q	1		This is a story about a eight year boy [[named Kabul // who lost his leg]] (15. Lily)
		[[// //]]Q			
		[[// // //]]Q			
Embedded clause/s as a whole nominal group	6	[[]]clH	5	1	[[Becoming rich and famous]] didn't solve anything. (14. Jess)
		[[[]Q]]clH			
		multiclH			
	1	[[//]]clH	1		... and my plan is [[to sleep // until we get there]] , (13. April)
		[[// //]]clH			
		[[// // //]]clH			
		[[// []Q]]clH			
		[[<< >>]]clH			
Both		mixed			
	29	Totals	26	3	
Summary					
Qualifier in a nominal group	22	75.8%	22 20	2	
Whole nominal group	7	24.1%	6	1	
Total	29	100%	26	3	
			90.3%	9.7%	

In the Year 6 Narratives, 31 of 318 clauses contain embedded clauses. Table 4. 4-14 shows 22 instances of the embedded clause acting as a Qualifier in a nominal group, denoted here with a final Q. Embedding also occurs 7 times where the clause acts as the whole nominal group, denoted with a final clH. As may be seen from Columns D and E, embedding in/as Circumstances is rare, occurring only 3 times, whereas embedding in/as Participants is much more common, occurring 26 times. Examples are given in Column F of Table 4. 4-14.

Table 4. 4-15 Embedded clauses (Year 6 Narratives)

A	B	C	D
Total clause embeddings	embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
27	simplexes		27
25	[[]]	she found a red, small pretty bird [[chirping at her]]. (15. Lily)	25
	[[]]c (multiple in one clause)	A long time ago in a small town [[called Hokkaido, Japan]] 1899, there lived a young lady [[called Lee Tong]]. (13. April)	2
	[[]]el (multiple in one element/group)		
	[[e]] (with an embedded clause)		
	e[[]]Q (form of [[e]])		
2	complexes		4
2	[[// //]]	and my plan is [[to sleep // until we get there]], (13. April)	2
		This is a story about a eight year boy [[named Kabul // who lost his leg]], (16. Kay)	2
	[[// // //]]		
	[[// // [[]]]]		
	[[<>>]] incl		
29	Total		31
Summary of simplicity of embedded clauses			
simplexes	27	90.3%	Average per text: 6.75
complexes	2	9.7%	Average per text: 0.5
Totals	29	100%	Average per text: 7.25

Considering now the 29 embedded clauses from the perspective of their complexity, the great majority are simplexes (27), almost all of these, (25), occurring in a separate clause. There is one instance where two elements of a clause contain embedding ("A long time ago in a small town [[called Hokkaido, Japan]] 1899, there lived a young lady [[called Lee Tong]].") There are 2 clause complexes, each involving only two clauses. In total, there are 31 total individual clauses embedded (Column D). Table 4. 4-16 gives details of these 31 embeddings.

Table 4. 4-16 Detail of use of embedded clauses (Year 6 Narratives)

Placement shorthand	How embedding manifests	Individual clause count	Examples	
in_ngQ_(P)	as Qualifier in a nominal group in a Participant (16 simplexes+ 2x2 complexes	116	... and to her amazement, Lee Tong saw a crowd [[running towards her]] . (14. Jess)	phenom
			she found a red, small pretty bird [[chirping at her]] . (16. Kay) (?? clause?)	goal
			for setting her daughter [[that she locked up]] free. (16. Kay)	goal
			she found herself [[getting braver]], (16. Kay)	phenom
in_ngQ_(C)	as Qualifier in a nominal group in a Circumstance	2	Lee Tong worked on one of the stalls [[which sold kimonos]] . (14. Jess)	location: place
			walked over to the planks [[they used for a table]]. (15. Lily)	location: place
in_ngQ_(e)_(P)	as Qualifier in a nominal adjectival group in a Participant	2	I am so glad , in the end [[that I went to India]] (13. April)	attribute
			She wasn't sure [[if she believed the small man]] . (14. Jess)	attribute
in_ngQ_(e)_(C)				
clH_(P)	as whole nominal group in a Participant	7	[[Becoming rich and famous]] didn't solve anything. (14. Jess)	actor
			the pain was [[all he could think about]] . (15. Lily)	value
			my plan is [[to sleep // until we get there]] , (13. April)	value
clH_(C)	as whole nominal group in a Circumstance	1	... feeling so angry about [[how much homework Mrs. Specks gave us]] (13. April)	matter
in_XX_(P)	in a group complex that is Participant	3	she gathered some kimonos and everything [[she needed for her stall]] . in_ngQ	goal
			Lee Tong had one more wish and only 5 minutes [[to use it]] . (14. Jess) in_ngQ	attribute: possessed
			One day in the village of Ukarumpa Kabul, a boy [[who lived in poverty]] woke up, (15. Lily) in_ngQ	behavior
in_XX_(C)				
Total		31		
Summary of function of embedding and as Participant or Circumstance				
as Qualifier in a nominal group in a Participant		21	(includes 3 from group complex)	
as whole nominal group in a Participant		7		
as Qualifier in a nominal group in a Circumstance		2		
as whole nominal group in a Circumstance		1		
Total		31		

From Table 4. 4-16, we see more than half of the 31 embedded clauses occur as a *Qualifier in a nominal group in a Participant* – in fact, in 16 cases. Next most

common is *as whole nominal group in a Participant*, in 7 cases. In addition, *embedded clauses in a group complex that is Participant* appear 3 times, *as Qualifier in a nominal group in a Circumstance* and *as Qualifier in a nominal adjectival group in a Participant* both twice, and *as a whole nominal group in a Circumstance* just once. Examples are given in the fourth Column along with the functional label of the transitivity element in the final Column.

4.4.2.2 General description of Year 6 Narratives

The Year 6 Narratives have been characterised according to average length in terms of sentences (43.25) and individual ranking clauses (80.25) and by a simple word average (485) which has been divided into lexical (240) and, by calculation, grammatical (245) items. Lexical density has been calculated (3.0). The ranking clauses have been further described by average usage of clause-simplexes (19) and clause-complexes (24.25). The explicit interdependency relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 55.4% to 44.6%. Logico-semantic relations in clause-complexes are identified.

Embedded clause usage has been examined from two perspectives: (i) the number of clauses containing embedding and (ii) the number of embedded clauses. The average per text for (i) is 6.75: clauses containing embedded simplexes (6.5) and those with clause complexes (0.5). The average per text for (ii) is 7.25: embedded simplexes (6.75) and embedded complexes (0.5). When employed, embedded clauses are used both as qualifiers in a nominal group (75.8%) and as Whole nominal groups (24.1%). They are involved in (or as) Participants (90.3%) and (or as) Circumstances (9.7%).

In summary, in Table 4. 4-9, some general, sentence level, features of the Year 6 Narratives are gathered together and summarised. The rest of the tables in Section 4.2.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of analysis: a look at the Experiential elements of the texts (Section 4.4.3), looking first at the functional elements in a clause (Processes, 4.4.3.1;

Participants, 4.4.3.2; Circumstances, 4.4.3.3), and then at the breakdown of the nominal group (4.4.3.4).

Now we turn to look more closely at the functional constituents of the sentences/clauses.

4.4.3 Transitivity (Year 6 Narratives)

4.4.3.1 Processes (Year 6 Narratives)

4.4.3.1.1 Functional types of Processes (Year 6 Narratives)

Table 4. 4-17 Process types (Year 6 Narratives)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	146	19	165	46.6	48.0
mental	28	2	30	8.9	8.7
mental: cognition	12	1	13	3.9	3.8
mental: desideration	3		3	1.0	0.9
mental: emotion	2	1	3	0.6	0.9
mental: perception	11		11	3.5	3.2
relational	78	8	86	25.2	25.0
R attrib: intens	50	2	52	16.0	15.1
R attrib: circ	2		2	0.6	0.6
R attrib: poss	6	1	7	1.9	2.0
R id: intens	20	4	24	6.4	7.0
R id: circ	1		1	0.3	0.3
R id: poss					
Subtotal(principal)	253	28	281	80.8	81.7
Subsidiary					
behavioural	19	3	22	6.1	6.4
verbal	36		36	11.5	10.5
existential	5		5	1.6	1.5
Subtotal(subsidiary)	60	3	63	19.2	18.3
Total	313	31	344	100	100
%	91	9	100		
Count of different Process types used	6	4	6		

We now turn to Transitivity and Process types, as set out in Table 4. 4-17. To take in the ‘big picture’ first, it is useful to start at the second and third last rows. Here we see there are 310 313 ranking clauses and 34 31 non-ranking clauses, making a total

of 344; in terms of proportions, ranking clauses make up 91% of the clauses and non-ranking 9%.

Now we focus on principal and subsidiary Processes. Principal Processes dominate, making up approximately 81% whether either ranking clauses alone or all clauses are considered; subsidiary clauses constitute the remainder, 19%.

Of the principal ranking Processes, material are most common (146), then relational (79), then mental (28). Of the subsidiary Processes in the bottom portion of Table 4. 4-17, verbal Processes dominate (36). There are 19 behavioural, and 5 existential.

The non-ranking clauses are relatively few (Column C) and all but 3 are of the principal type and follow the pattern of the ranking clauses: material first (19), relational (7) and mental (2). This gives the over-all pattern for all principal clauses of material (165 or 48.0%), then relational (86 or 25.0%), finally mental (30 or 8.7%). Within the relational Processes in ranking clauses, *attributive intensive processes* occur most often, 50 times; next, *identifying intensive* (20), *attributive possessive* (6), *attributive circumstantial* (2); and only 1 *identifying circumstantial* process. A slightly modified similar pattern holds for relational Processes in the non-ranking clauses, with *identifying intensive* occurring most often (4), *attributive intensive* occurring (2) and *attributive possessive* (1) providing the other instance. With respect to mental Processes, the order of frequency of appearance in ranking clauses is *cognition* (12), *perception* (11), *desideration* (3) and *emotion* (2); in non-ranking clauses, there are 2 instances of mental processes – *cognition* (1) and *emotion* (1). The subsidiary non-ranking clauses involve behavioural processes (3).

Across clause types, the frequency of use of types of processes is:

material	165	(48.0%)
relational	86	(25.0%)
verbal	36	(10.5%)
mental	30	(8.7%)
behavioural	22	(6.4%)
existential	5	(1.5%)
Total	344	(100%)

Year 6 use all types of Processes in the ranking clauses in their Narratives, and only 4 in their embedded clauses, spurning verbal and existential.

4.4.3.1.2 Realisation – form of Processes (Year 6 Narratives)

Table 4. 4-18 Process form (Year 6 Narratives)

A	B	C	D	E	F
Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
A Complexity:					
Verbal group simplexes	292	33	325	94.2	94.5
Verbal group complexes	18	1	19	5.8	5.5
Total	310	34	344	100	100
B Other features:					
Phrasal verbs	41	1	42		
Modal finites	27	1	28		
Modal adjuncts	9		9		

Whether in ranking or non-ranking clauses, verbal group simplexes greatly outnumber verbal group complexes (Table 4. 4-18). In total, simplexes are 17 times more common than complexes (Column F). Other features, in order of frequency in ranking clauses (Column B), are phrasal verbs (41), modal finites (27) and modal adjuncts (9); the same features appear 1, 1 and 0 times in non-ranking clauses (Column C).

Table 4. 4-19 Verb complexing summary (Year 6 Narratives)

A	B	C	D	E	F
Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis	2		2	11.1	10.5
expansion elaboration					
expansion extension	2		2	11.1	10.5
expansion enhancement					
projection not applicable					
Hypotaxis	16	1	17	88.9	89.5
expansion elaboration	12	1	13	66.7	68.4
expansion extension	2		2	11.1	10.5
expansion enhancement	1		1	5.6	5.3
projection	1		1	5.6	5.3
Multiple complexing	2		2	11.1	10.5
Total	18	1	19	111	111

To summarise verbal group complexing, Table 4. 4-19 Column F, 89% of the total involve hypotaxis and 11% parataxis. The two examples of parataxis are both *expansion: extension*; that is, there are no examples of *expansion: elaboration* or *expansion: enhancement* among these. Regarding hypotaxis, a total of 13 cases involve *expansion:elaboration*, 2 *expansion: extension*, and 1 each *expansion: enhancement* and *projection* (Column D). Of the 19 total cases, only 1 occurs in an embedded clause (Column C). Instances are set out in detail in Table 4. 4-20.

Table 4. 4-20 Instances of complexing in the verb (Year 6 Narratives)

Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis	2			
expansion elaboration				
expansion extension	2	yelling and screaming for her autograph.(14. Jess)	verbal	and or
		Ank-Mee was astonished and shocked. (16. Lily)	mental: emotion	
expansion enhancement				
projection				
Hypotaxis	17			
expansion elaboration	13	so Lee Tong started to walk to the train station. (14. Jess)	material	general: start
		beginning to feel fed up.(14. Jess)	R attrib: intens	
		Lee Tong started to pack up her kimonos. (14. Jess)	material	
		Kabul's father and and friends started to pick the man up, (15. Kay)	material	
		and started to roll down a steep cliff. (15. Kay)	material	
		and started to clean up the blood, (15. Kay)	material	
		I just got told some horrible news, (12. April)	verbal	passive
		Kimonos are dresses [[which are used in Japan for special occasions]]. (13. Jess)	material[[]]	
		and was surrounded by millions of yen. (13.)	R id: circ	
		once that was done	material	
		and Kabul was told (15. Kay)	verbal	
		when I am supposed to be going on our school camp. (13. April)	material	
		and he had been adopted by an Australian couple. (15. Kay)	material	
expansion extension	2	if we can find scraps of food (15. Kay)	material	general: can
		I can't wait (13. April)	material	general: can=> modality
expansion enhancement	1	and left it to rest . (16. Lily)	material	caus mod agency low
projection	1	but you might want to shut your eyes. (15. Kay)	behavioural	proposal: idea want
Total	19			

4.4.3.2 Participants (Year 6 Narratives)

4.4.3.2.1 Functional types of Participants (Year 6 Narratives)

Table 4. 4-21 Participant roles (Year 6 Narratives)

A	B	C	D	E	F	G
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material <i>oblique</i>	actor	118	12	130	25.8	26.5
	goal	61	5	66	13.3	13.4
	recipient	6	2	8	1.3	1.6
	client					
	scope	10	2	12	2.2	2.4
	initiator	1		1	0.2	0.2
	attribute: depictive					
	attribute: resultative	1		1	0.2	0.2
mental <i>oblique</i>	senser	24	2	26	5.3	5.3
	phenom	14	1	15	3.1	3.1
	inducer					
relational: attrib	carrier	54		54	11.8	11.0
	attribute	57	3	60	12.4	12.2
R attrib: intens	carrier	33		33	7.2	6.7
	attribute	38	3 2	40	8.3	8.1
R attrib: circ	carrier (cir:att)	13		13	2.8	2.6
	attribute (cir:att)	13		13	2.8	2.6
	carrier (cir:pr)	2		2	0.4	0.4
	attribute (cir:pr)					
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	6		6	1.3	1.2
	attribute: possessed(poss:pr/carr:p'r)	6	1	7	1.3	1.4
	carrier: possessed(poss:pr/carr:p'd)					
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary					
relational: ident	token	24	4	28	5.2	5.7
	value	20		20	4.4	4.1
R id: intens	token	23	4	27	5.0	5.5
	value	20		20	4.4	4.1
R id: circ	token(circ)	1		1	0.2	0.2
	value(circ)					
R id: poss	token(poss)					
	value(poss)					
<i>oblique</i>	assigner	1		1	0.2	0.2
behavioural <i>oblique</i>	behave	17	2	19	3.7	3.9
	behaviour	3		3	0.7	0.6
	phenomenon(b)					
verbal <i>oblique</i>	sayer	26		26	5.7	5.3
	receiver	10		10	2.2	2.0
	verbiage	6		6	1.3	1.2
	target					
existential	existent	5		5	1.1	1.0
	Total	458	33	491	100	100

	Count of different Participant roles used	19	9	19		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, receiver, attribute; initiator	197	21	218	42.8	44.4
mental	sensor, phenomenon; inducer	38	3	41	8.4	8.4
relational		156	7	163	34.0	33.2
attribution identification	carrier, attribute, beneficiary, attributor	111	3	114	24.2	23.2
	token, value; assigner	45	4	49	9.8	10.0
behavioural	behaviour; phenomenon(b)	20	2	22	4.4	4.5
verbal	sayer, receiver; verbiage, target	42		42	9.2	8.6
existential	existent	5		5	1.1	1.0
		458	33	491	100	100

The use of Participants must reflect the type of Process; both are gathered here in summary of Table 4. 4-21, and presented in descending order of frequency of (Process) use:

	Processes %	Participants %
material	48.0	44.4
relational	25.0	33.2
verbal	10.5	8.6
mental	8.7	8.4
behavioural	6.4	4.5
existential	1.5	1.0
Total	100	100

In total, there are 458 Participants in ranking clauses and 33 in non-ranking clause, making a total of 491 Participants. These are spread among 19 Participant roles, 9 of which are used in embedded clauses.

Table 4. 4-22 collates information about the use of the indirectly involved Participants that are counted in Table 4. 4-21.

Table 4. 4-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 6 Narratives)

Range of Participant roles used, directly and obliquely involved with the Process						
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	<i>direct</i>	<i>oblique</i>	<i>Total</i>			
material	2	6	8	2	4	6
mental	2	1	3	2		2
relational	4	3	7	4	1	5
attributive	2	2	4	2		2
identifying	2	1	3	2	1	3
behavioural	1	2	3	1	1	2
verbal	2	2	4	2	1	3
existential	1	0	1	1	0	1
	12	14	26	12	7	19

In Table 4. 4-22, comparing Column C with Column B(i) shows that all available directly-related Participant roles are used in the Year 6 Narratives. The directly involved Participant roles thus account for 12 of the 19 that are chosen. The remaining 7 roles are used as per Column D, which shows that the material clauses employ 4 Participants that are obliquely involved, and that in relational, behavioural and verbal clauses there is the use of one oblique Participant role.

Crossing this information with the previous table, we can be more specific. Material clauses employ 6 of the 8 available Participant roles, 4 of which are obliquely related to the Process: recipient (8), scope (12), initiator (1) and resultative attribute (1). One relational identifying clause makes use of the all Participant roles, including assigner (1). Behavioural and verbal clauses each employ one of their associated oblique roles: behaviour (3) and verbiage (6).

4.4.3.2.2 Realisation – form of Participants (Year 6 Narratives)

Table 4. 4-23 Summary of forms taken by Participants (Year 6 Narratives)

Participants in ranking clauses					Participants in embedded clauses					All
noun group	adjectival group	clause	prepositional phrase	adverbial group	noun group	adjectival group	clause	prepositional phrase	adverbial group	Total
398	33	6	17	1	32	2		1		490
437					34					
455					35					

Table 4. 4-23 indicates that noun groups dominate the forms taken by participants, both in the ranking clauses (398) and the other clauses (32); next come adjectival groups (33 in ranking, 2 in other clauses); prepositional phrases (17, 1); clauses (6, 0) and adverbial groups (1, 0). Further details are in Table 4. 4-24.

Table 4. 4-24 Detail of forms taken by Participants (Year 6 Narratives)

Table 4.1: Total of forms taken by Participants (Year 6 Narratives)															
A	B	C	D	E	F	G	H	I	J	K	L				
	Participants in ranking clauses					Participants in embedded clauses					Both				
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total				
	noun group	adj. group	clause			noun group	adj. group	clause							
Nominal groups															
One group	386	32 33	6	17		36 32	3 2		1		477				
Single function (Head only)	259 263	30 31	6	9		33 29	3 2		1		341				
Pre-mod + Head (no post-mod)	102 103			5 6		3					110 112				
Post-mod (may be pre-mod)	21 20	2		3 2							26 24				
Two+ groups	12											12			
Adverbial groups															
One group					1						1				
Head only															
Pre-mod + Head (no Post-mod)					1						1				
Post-mod (may be pre-mod)															
Two+ groups															
Summary of forms taken by Participants															
Noun groups	398					32					430				
Adj. nominal groups						33						2	35		
Clauses											6		6		
Prepositional phrases												17		1	18
Adverbial groups													1		1
Total all	455					35					490				

Table 4. 4-24 details the forms taken by Participants. First the forms taken in the ranking clauses will be discussed, then the forms taken in the other clauses. In the ranking clauses, in the noun group, 386 Participants involve one nominal group and 12 involve two or more i.e. a nominal group complex. Returning to the one nominal group cases, 300 of these involve a single function (263 noun groups, 31 adjectival groups and 6 clauses), 103 (all noun groups) a pre-modifying function only and 22 include a post-modifying function, two of which are adjectival groups. There are 17 prepositional phrases used, employing single function words (9) and Heads with both pre- (6) and post-modifiers (2).

Turning now to the non-ranking clauses, similar trends apply, albeit with smaller numbers of examples. Of the 35 Participants in embedded clauses, 34 are nominal groups (32 noun groups and 2 adjectival nominal groups). Of the 32 noun groups, 29 consist of Head only, and 2 have a post-modifying function. There is one prepositional phrase.

Table 4. 4-25 Examples of forms taken by Participants (Year 6 Narratives)

Function feature	Form	Example	Participant roles	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	noun group	Kabul (16. Kay)		thing
	noun group	this <i>in</i> this is what happened (13. April)		determiner
	adj group	strange (15. Lily)		Epithet
	clause	[[what happened]]. (13. April)	value	Wh-clause
	clause	[[to sleep // until we get there]]. (13. April)	value	act
	clause	[[where I am going]]. (13. April)	value	Wh-clause
	prep phrase	like [[he hadn't washed in years]]. (14. Jess)	attribute (cir:pr)	fact
	clause	[[who he was]] (14. Jess)	verbiage	Wh-clause
	clause	[[Becoming rich and famous]] (14. Jess)	actor	act
with Pre-mod function Focus	prep phrase	all my friends (13. April)	assigner	Focus – selecting
	noun group	all the colourful shops in Mumbai (13_	goal	Focus – selecting
	noun group	one of the busiest country in Asia. (14. Jess)	attribute	Focus – selecting
	noun group	one of them (15. Lily)	actor	Focus – selecting
	noun group	all [[he could think about]], (15. Lily)	value	Focus – selecting
	noun group	one of the nuns (15. Lily)	actor	Focus – selecting

	noun group	the rest of my life (16. Kay)	scope	Focus – partitive
With Post-mod function Qualifier (phrase)	noun group	the most movies in the world. (13. April)	goal	Qualifier – phrase
	noun group	all the colourful shops in Mumbai (13. April)	goal	Qualifier – phrase
	noun group	one of the busiest country in Asia. (14. Jess)	attribute	Qualifier – phrase
	noun group	the best day of her life. (14. Jess)	value	Qualifier – phrase
	noun group	scraps of food (15. Lily)	goal	Qualifier – phrase
	prep phrase	to his best friend at the orphanage (15. Lily)	receiver	Qualifier – phrase
	noun group	the soldiers in World War II (15. Lily)	actor	Qualifier – phrase
	noun group	chirping [from the most dangerous steep hill [in the village]]. (16. Kay)	phenom	Qualifier – phrase
With Post-mod function Qualifier (clause)	noun group	lucky enough [[to get a seat next to a girl about my age]] (13. April)	attribute	Qualifier – clause
	noun group	10 rupees [[to spend]] (13. April)	goal	Qualifier – clause
	adj group	so glad [[that I went to India]] (13. April)	attribute	Qualifier – clause
	noun group	a young lady [[called Lee Tong]]. (14. Jess)	existent	Qualifier – clause
	noun group	dresses [[which are used in Japan for special occasions]]. (14. Jess)	value	Qualifier – clause
	noun group	the fastest way [[to travel on land in Japan]]. (14. Jess)	value	Qualifier – clause
	adj group	sure [[if she believed the small man]]. (14. Jess)	attribute	Qualifier – clause
	noun group	a crowd [[running towards her]]. (14. Jess)	phenom	Qualifier – clause
	prep phrase	about a eight year boy [[named Kabul // who lost his leg]] (15. Lily)	attribute (cir:att)	Qualifier – clause
	noun group	a large gash [[that was bleeding badly]]. (15. Lily)	attribute: possessed(po ss:pr/carr:p'r)	Qualifier – clause
	noun group	all [[he could think about]], (15. Lily)	value	Qualifier – clause
	noun group	a red, small pretty bird, [[chirping at her]]. (16. Kay)	goal	Qualifier – clause
	noun group	herself [[getting braver]], (16. Kay)	phenom	Qualifier – clause
	noun group	the bird [[she loved]] (16. Kay)	actor	Qualifier – clause
	noun group	her daughter [[that she locked up]] (16. Kay)	goal	Qualifier – clause
Two+ groups				
Head only with Pre-mod	noun group; noun group	Aamani and her mum (13. April)	actor	para exten
with Pre-mod Head only	noun group; noun group	some kimonos and everything [[she needed for her stall]]. (14. Jess)	goal	para exten
with Pre-mod with Post-mod	noun group; noun group	one more wish and only 5 minutes [[to use it]]. (14. Jess)	attribute: possessed(po ss:pr/carr:p'r)	para exten
Head only	noun group;	Kabul, a boy [[who lived in poverty]] (15.	behavior	para elab

with Post-mod	noun group	Lily)		
with Pre-mod Head only	noun group; noun group	his mother Yasa (15. Lily)	sayer	para elab
with Pre-mod Head only	noun group; noun group	his father, Baiterheiro (15. Lily)	actor	para elab
with Pre-mod Head only	noun group; noun group	faint gunshots and yelling. (15. Lily)	phenom	para exten
with Pre-mod group complex	noun group noun group which is a group complex	fellow Ukarumpan villagers. Yaga, Kaikoa and Obi. (15. Lily)	value	para elab
with Pre-mod Head only	noun group; noun group	Kabul's father and friends (15. Lily)	actor	para exten
with Pre-mod with Pre-mod	noun group; noun group	a cloth and a bucket of clean water (15. Lily)	goal	para exten
with Pre-mod with Pre-mod with Pre-mod	noun group; noun group; noun group	a small cupboard a wooden table and a pair of crutches. (15. Lily)	existent	para exten para exten
with Pre-mod with Pre-mod	noun group; noun group	a basket and some cheese. (16. Kay)	goal	para exten
Adverbial groups				
adv modification	adv group	only walking distance away. (13. April)	attribute (cir:att)	

4.4.3.3 Circumstances (Year 6 Narratives)

4.4.3.3.1 Functional types of Circumstances (Year 6 Narratives)

Table 4. 4-26 Types of Circumstances (Year 6 Narratives)

Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive					
accomp: comitative	8		8	6.2	5.6
angle: source					
angle: viewpoint	1		1	0.8	0.7
cause: behalf					
cause: purpose	1	2	3	0.8	2.1
cause: reason	3		3	2.3	2.1
contingency: concession					
contingency: condition					
contingency: default					
extent: distance	1		1	0.8	0.7
extent: duration	4	1	5	3.1	3.5
extent: frequency	2		2	1.5	1.4
location: place	61	7	68	46.9	47.9
location: time	30		30	23.1	21.1
manner: comparison	1		1	0.8	0.7
manner: degree					
manner: means	1		1	0.8	0.7
manner: quality	16	1	17	12.3	12.0
matter	1		1	0.8	0.7
role: guise		1	1		0.7
role: product					
Total	130	12	142	100	100
%	92	8	100		
Count of different types of Circumstances used	13	5	14		

Of the Circumstances listed in Table 4. 4-26, 48% of the total are location:place and 21% location:time; thus location constitutes 69% of the total Circumstances. location:place is the most common in the ranking clauses, followed by location:time. In the non-ranking clauses, location:place is the most common, but location:time does not occur. The next most common Circumstance is manner:quality, at 12% total. Altogether, 14 different types of Circumstances occur in this text-group, with role:guise uniquely appearing in non-ranking clauses. Eight other types of Circumstances listed in Table 4. 4-26 are not employed by this text-group.

4.4.3.3.2 Realisation – form of Circumstances (Year 6 Narratives)

Table 4. 4-27 Summary of forms taken by Circumstances (Year 6 Narratives)

Circumstances in ranking clauses			Circumstances in embedded clauses			All
prepositional phrase	noun group	adverbial group	prepositional phrase	noun group	adverbial group	Total
78	12	40	9		3	142
130			12			

Circumstances are realised primarily by prepositional phrases (78 occurrences in ranking clauses, 9 in other clauses); adverbial groups (40 occurrences in ranking clauses, 3 in others) and noun groups (12 in ranking clauses, none in others) – see Table 4. 4-27, and for greater detail Table 4. 4-28.

Table 4. 4-28 Detail of forms taken by Circumstances (Year 6 Narratives)

A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	77	11		9			97
Single function (Head only)	16	3		3			22
Pre-mod + Head (no post-mod)	48	8		4			60
Post-mod (may be pre-mod)	12	1		2			15
Two+ groups	1	1					2
Adverbial groups							
One group			37			3	40
Head only			27			3	30
Pre-mod + Head (no Post-mod)			9				9
Post-mod (may be pre-mod)			1				1
Two+ groups			3				3
Summary of forms taken by Circumstances							
Prepositional phrases	78			9			87
Noun groups		12					12
Adverbial groups			40			3	43
Total all	130			12			142

Table 4. 4-28 gives detail of the simple groups. Of these, 97 involve one nominal group, 2 involve two or more nominal groups. There are 40 single adverbial groups, and 3 involve two or more adverbial groups. Of the circumstances involving nominal groups, 87 involve prepositional phrases and 12 involve noun groups.

Table 4. 4-29 Examples of forms taken by Circumstances (Year 6 Narratives)

Circumstance feature	Form	Example	Functional type	Note
Prepositional phrases / nominal groups				
One group				
Head only (including clause as Head)	prep phrase	about [[how much homework Mrs. Specks gave us]] (13. April)	matter	Wh-clause
with Pre-mod function	noun group	One bright sunny morning (14. Jess)	location: time	
	prep phrase	at all the yen in the room. (14. Jess)	location: place	Focus – selecting
	prep phrase	with a little bit of cheese. (16. Kay)	accomp: comitative	Focus – partitive
with Post- mod function Qualifying phrase	prep phrase	with only the company [of her animals]. (14. Jess)	accomp: comitative	Qualifier – phrase
	prep phrase	since the age [of 15]. (14. Jess)	extent: duration	Qualifier – phrase
	prep phrase	by the sound [of traffic]. (14. Jess)	cause: reason	Qualifier – phrase
	prep phrase	at a speed [of 270 k [per hour]]. (14. Jess)	manner: quality	Qualifier – phrase
	prep phrase	at all the yen [in the room]. (14. Jess)	location: place	Qualifier – phrase
	prep phrase	in the village [of Ukarumpa] (15. Lily)	location: place	Qualifier – phrase
	prep phrase	With terrified looks [on their faces] (15. Lily)	accomp: comitative	Qualifier – phrase
	adj group	worse [than the gunshot]. (15. Lily)	manner: comparison	Qualifier – phrase
with Post- mod function Qualifying clause	prep phrase / adv group complex	back to a place [[called Mumbai]] (13. April)	location: place	Qualifier – clause
	prep phrase	in a small town [[called Hokkaido, Japan]] (14. Jess)	location: place	Qualifier – clause
	prep phrase	on one of the stalls [[which sold kimonos]]. (14. Jess)	location: place	Qualifier – clause
	prep phrase	next to a man [[who was selling sushi]]. (14. Jess)	location: place	Qualifier – clause
	prep phrase	over to the planks [[they used for a table]]. (15. Lily)	location: place	Qualifier – clause
Two+ groups				
Pre-mod Head only	adv group prep phrase	A long time ago ... (in)1899 (14. Jess)	location: time	para elab
Head only	prep phrase	by 12:00 today.” (14. Jess)	location: time	para elab in head
Pre-mod Pre-mod	prep phrase	off the floor (his bed) (15. Lily)	location: place	para elab in head
Head only Head only	prep phrase	with Jara and Ife.” (15. Lily)	accomp: comitative	para ext in head
Adverbial groups – one group				
Pre-mod + Head (no Post-mod)	adv group	right now (13. April)	location: time	pre-mod
	adv group	ever so far (13. April)	location: time	pre-mod
	adv group	back home (13. April)	location: place	pre-mod
	adv group	so much (13. April)	manner: quality	pre-mod
	adv group	back inside (14. Jess)	location: place	pre-mod
	adv group	An hour later (15. Lily)	location: time	pre-mod

	adv group	ever after (16. Kay) perhaps a multi-word head?	manner: quality	pre-mod
Post-mod (may be pre-mod)	adv group	later that night (16. Kay)	location: time	enh
Adverbial groups – two+ groups				
	adv group/ prep phrase complex	Tomorrow on the 21st of October (13. April)	location: time	elab

4.4.3.4 The Nominal Group – a special case (Year 6 Narratives)

In this section are collected together the nominal groups from the Participants and Circumstances, from both ranking and embedded clauses, from the Year 6 Narratives.

Table 4. 4-30 Nominal groups (Year 6 Narratives)

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	320	36	28	384	48.4	58.1
Head=Thing	278	34	22	334	42.1	50.5
Head≠Thing, elliptical	9		2	11	1.4	1.7
Head≠Thing, Epithet	33	2	4	39	5.0	5.9
Pre-mod + Head only	165	7	59	231	25.0	34.9
Head=Thing	159	7	52	218	24.1	33.0
Head≠Thing, elliptical	2			2	0.3	0.3
Head≠Thing, Epithet						
Head≠Thing, focus	4		7	11	0.6	1.7
Post-modification	37	3	6	46	5.6	7.0
with qualifying phrase	17	2	3	22	2.6	3.3
with qualifying clause	20	1	3	24	3.0	3.6
with multiple qualifiers						
Total	522	46	93	661	79.0	100

The overall conclusions from Table 4. 4-30 are that a majority of the nominal groups contain a single function only (384 from 661 nominal groups, or 58.1%) and that still quite a large minority contain a pre-modifying function (231 from 661 nominal groups, or 34.9%). A smaller minority contains a post-modifying function (46 from 661 nominal groups, or 7.0%).

Now we will look briefly at the three sections of Table 4. 4-30. Firstly, of the single function nominal groups, by far the most are conventional noun groups, where the

Head conflates with Thing (334 from 384, or 87.0%). A few are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet (39 of 384, or 10.1%) and 11 have the Head conflated with an element other than an Epithet (2.8%). Secondly, of the nominal groups consisting of pre-modifier + Head, again by far the most have Head conflated with Thing (218 of 231, or 94.4%). Eleven employ the use of focus (11 of 231 or 4.8%), leaving only 0.9% to be accounted for by usage involving elliptical Heads (no Epithets, however). Thirdly, in the 7.0% of clauses that contain a post-modifying element, most contain a qualifying clause (24 of 46 or 52.8%), 22 of 46 (or 44.9%) contain a qualifying phrase. There are no instances of a nominal group with multiple qualifiers in the Year 6 Narratives.

Examples of nominal groups appear in Table 4. 4-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the first position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 4. 4-31 Examples of nominal groups (Year 6 Narratives)

Total	% Total	Feature	Example		Notes/type
384	58.1	single function – Head only			
334	50.5	Head=Thing	pronouns (62.3%); common nouns (12.9%); proper nouns (24.9%). (Some multi-words e.g. <i>Mrs Derus</i> , <i>World War 2</i> & word complexes e.g. Aamani and I.) (Personal pronouns 57.5%.)		
11	1.7	Head≠Thing, elliptical	<i>This</i> in <i>This had to be the best day of her life.</i> (14. Jess) <i>these</i> in <i>these were fellow Ukarumpan villagers</i> (16. Kay)		deictic only
39	5.9	Head≠Thing, Epithet	<i>rich and famous</i> in <i>I will be rich and famous</i> (14. Jess) <i>very pleased</i> in <i>I would be very pleased</i> (15. Lily)		para extension in Epithet
231	34.9	Pre-mod + Head only			
218	33.0	Head=Thing	SEE TABLE BELOW		
2	0.3	Head≠Thing, elliptical	<i>the other</i> in <i>I am excited in one way but sad in the other.</i> (13. April)		
		Head≠Thing, Epithet			
11	1.7	Head≠Thing, focus	a bucket of clean water (15. Lily)		focus – re-counting
46	7.0	Post-modification			
22	3.3	with qualifying phrase	single function (Head=Thing)	scraps of food(15. Lily)	
			with Pre-mod (Head=Thing)	all the colourful shops in Mumbai (13. April)	
24	3.6	with qualifying clause	single function (Head=Thing)	dresses [[which are used in Japan for special occasions]]. (12)	relative clause as qualifier
			(Head≠Thing, Epithet)	lucky enough [[to get a seat next to a girl about my age]] (13. April)	non-finite clause as qualifier
			with Pre-mod (Head=Thing	the planks [[they used for a table]]. (15. Lily)	relative clause as qualifier
			with Pre-mod (Head=Thing	the fastest way [[to travel on land in Japan]].(14. Jess)	non-finite clause as qualifier
663	100	Total			

Concerning the question of how the Head is modified, it may be concluded that simple nominal groups of Head only are more common than those with pre-modifying functions by about one and a half (380:230) and about eight times more common than those with post-modifying elements (380: 48).

Again, we will focus on the highlighted row from Table 4. 4-30, shown again for convenience here:

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	320	36	28	384	48.4	58.1
Head=Thing	278	34	22	334	42.1	50.5
Head≠Thing, elliptical	9		2	11	1.4	1.7
Head≠Thing, Epithet	33	2	4	39	5.0	5.9
Pre-mod + Head only	165	7	59	231	25.0	34.9
Head=Thing	159	7	52	218	24.1	33.0
Head≠Thing, elliptical	2			2	0.3	0.3
Head≠Thing, Epithet						
Head≠Thing, focus	4		7	11	0.6	1.7
Post-modification	37	3	6	46	5.6	7.0
with qualifying phrase	17	2	3	22	2.6	3.3
with qualifying clause	20	1	3	24	3.0	3.6
with multiple qualifiers						
Total	522	46	93	661	79.0	100

Table 4. 4-32 will display the range of configurations of pre-modifying elements – Deictic, Post Deictic, Numerative, Epithet, Classifier and Thing – used in nominal groups where the Head conflates with the Thing.

Table 4. 4-32 Pre-modification in the nominal group (Year 6 Narratives)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing				
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing	1	0.5	the other men (15. Lily)	
DeicticNumerativeEpithetThing	1	0.5	The two robed women (15. Lily)	
Deictic/NumerativeThing	8	3.7	a couple of hours (13. April)	my 2nd wish (14. Jess)
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing	1	0.5	A mean Chinese witch (16. Kay)	
DeicticEpithetEpithetEpithetThing	2	0.9	a little old ugly man (14. Jess)	a red, small, pretty bird (16. Kay)
DeicticEpithetEpithetThing	4	1.8	a beautiful pink and purple sari (13. April)	the poor red bird (15. Lily)
DeicticEpithetThing	31	14.2	his meagre meal (15. Lily)	a hard yet cushoiny bed (15. Lily)
DeicticClassifierClassifierThing				
DeicticClassifierThing	12	5.5	our school camp. (13. April)	her morning routine (14. Jess)
DeicticThing 130	131	59.6	her amazement (14. Jess)	your crutches (15. Lily)
Deictic2Thing				
Deictic2ClassifierThing	1	0.5	fellow Ukarumpan villagers (15. Lily)	
NumerativeClassifierThing	1	0.5	two bite marks (16. Kay)	
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing				
NumerativeThing 18	19	8.7	millions of yes (14. Jess)	both nuns (15. Lily) two nuns
EpithetClassifierThing				
EpithetEpithetThing				
EpithetThing	5	2.3	beautiful curries (13. April)	dirty and tattered clothes (14. Jess)
ClassifierClassifierThing				
ClassifierThing	2	0.9	pen pals (13. April)	Sydney airport (13. April)
25 Total	218	100		
Count of different configurations used	14			

Of the 25 available patterns, 14 were used (56%). The most used configuration is DeicticThing (with 59.6%). Next most common uses the addition of a single Epithet – DeicticEpithetThing (14.2%). There are 19 instances (8.7%) of NumerativeThing, 12 instances of DeicticClassifierThing (5.5%), 5 of EpithetThing (2.3%), 8 of

DeicticNumerativeThing (3.7%), 4 of DeicticEpithetEpithetThing (1.8%) and 2 each only of DeicticEpithetEpithetEpithetThing (0.9%) and ClassifierThing (0.9%). The 5 remaining uses of configurations have only 1 instance each in the Year 6 Narratives (1% each): DeicticDeictic2Thing, DeicticNumerativeEpithetThing, DeicticEpithetClassifierThing, Deictic2ClassifierThing, and NumerativeClassifierThing.

It seems that Year 6 students are willing to experiment a little with the pre-modifier in the nominal group.

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 43 of the 218 (19.7%) involve the use of Epithets (5 different configurations, two of them using more than one). Seventeen (17) nominal groups use a Classifier, 17 (7.8%) (in 5 configurations, of which one is in company with an Epithet).

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres. In the case of the Year 6 Narratives, 28 (or 12.8%) noun groups do not use a deictic.

There is any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

This chapter has provided quite a thorough ideational examination of the Narratives written by students in Years 3, 4, 5 and 6. A substantial amount of data is presented, and much will be collected together in Chapter 7 to provide a developmental picture across the Years.

It is now time to turn attention to Expositions. Chapter 5 starts with the Expositions written by Year 3 students.

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5.1 Findings: Year 3 Expositions

5.1.1 The Year 3 Expositions

5.1.1.1 Text 17. [Computer Games are Bad for You], by Jasper

Table 5. 1-1Text 17. [Computer Games are Bad for You] (Jasper, 3/E)

17. [Computer Games are Bad for You] (Jasper, 3/E)	Stages
I believe computer Games are bad for you	Statement of position
I believe they make you lose long distance eye sight and lose concentrashion. you sit closer to a computer then[sic] a t.v. children promise parents that they'll stop in a certain amount of time and they don't. you can acturly, be doing something when someone's doing it for you. rather then[sic] playing a computer sport game you could be playing it in real life. you could play with a friend or a pet than talking to someone you hardly know on the computer and playing with a digital pet.	Arguments

Table 5. 1-2 Text 17. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
7	1	6	16	1	0	43	98	2.7	6.1

5.1.1.2 Text 18. Junk Food Should Be Banned From the Canteen, by Josh

Table 5. 1-3 Text 18. Junk Food Should Be Banned From the Canteen (Josh 3/E)

18. Junk Food Should Be Banned From the Canteen (Josh 3/E)	Stages
I definitely believe junk food should be banned from canteens because it is not healthy and junk food has lots of salt and sugar.	Statement of position
<p>Firstly, junk food can make children obese which can develop fat on children. Children can get diabetes.</p> <p>Secondly, junk food doesn't give us the nutrients we need to grow strong and give us energy. We can't eat too much or we will have too much fat on us.</p> <p>Lastly, junk food should be banned in canteens because junk food doesn't help us grow strong and healthy. Our digestive system needs healthy food to work.</p>	Arguments
Therefore I believe we shouldn't have junk food in canteens because our organs can't function[sic] properly.	Reinforcement of statement of position

Table 5. 1-4 Text 18. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
8	2	6	17	0	1	59	114	3.5	6.7

5.1.1.3 Text 19. Having a Dog as a Pet, by Maisie

Table 5. 1-5 Text 19. Having a Dog as a Pet (Maisie, 3/E)

19. Having a Dog as a Pet (Maisie, 3/E)	Stages
Introduction: Before you get a dog you have to think.	Statement of position
<p>Firstly, dogs are good company for elderly people and young people. They also help people who are blind especially. They are called Guard Dogs.</p> <p>Secondly, when you are away on a holiday dogs will protect you're[sic] house from robbers[sic] and people that walk past and try to pop in. Little dogs can make a very loud sound.</p> <p>Lastly dogs are good to play with but some dogs are very vicious. For example dogs like to play catch with the ball down at the beach and park. Therefore, if you are scared of dogs they still can be helpfull[sic]</p>	Arguments
I defintly[sic] believe that dogs are quite good even though they can bite.	Reinforcement of statement of position

Table 5. 1-6 Text 19. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
8	5	3	11	2	1	45	94	4.1	8.5

5.1.1.4 Text 20. Should Junk Food be Banned? by Mike

Table 5. 1-7 Text 20. Should Junk Food be Banned? (Mike, 3/E)

20. Should Junk Food be Banned? (Mike, 3/E)	Stages
I strongly believe junk food should be banned because it contains lots of fat and children become obese from junk food.	Statement of position
<p>Firstly, junk food must be banned because junk food has lots of fat, sugar and salt. Junk food can also develop diabetes[sic], and diabetes can make you sick.</p> <p>Secondly, junk food doesn't help us grow strong. Healthy food does, but junk food doesn't help us grow strong.</p> <p>Thirdly, We need to eat from the 5 food groups so we can be healthy. Junk food must only be eaten sometimes.</p> <p>Lastly, we must learn to eat from healthy food groups so we can be healthy everyday. We need to eat 2 fruit and 5 vegetables daily. Sugar in junk food rots your teeth.</p>	Arguments
Therefore, I believe[sic] junk food must be banned because more children are getting obese from junk food. Junk food shouldn't be eaten all the time, only sometimes. So junk food must be banned.	Reinforcement of statement of position

Table 5. 1-8 Text 20. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
13	6	7	23	0	0	84	156	3.7	6.8

5.1.2 Sentence-level information (Year 3 Expositions)

Table 5. 1-9 Overview (Year 3 Expositions)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
17	7	1	6	16	1	0	43	98	2.7	6.1
18	8	2	6	17	0	1	59	114	3.5	6.7
19	8	5	3	11	2	1	45	94	4.1	8.5
20	13	6	7	23	0	0	84	156	3.7	6.8
Part B										
T	36	14	22	67	3	2	231	462		
Av	9	3.5	5.5	16.75	0.75	0.5	57.75	115.5	3.5	7.0

Texts 17-20 are the Year 3 Expositions. Sentence level characteristics of each text are set out in Table 5. 1-9, summarised in the final 2 rows. From this lower section of the table, it can be seen that the Year 3 Narrative data is contained in 36 sentences, comprised of 14 clause simplexes (39%) and 22 clause complexes (61%). Altogether there are 67 ranking clauses. Of the 67 clauses, 5 contain embedded clauses in some form (Columns F + G) (7.5%) while 62 (92.5%) do not (Columns E – (F + G)). Of the embedded clauses, 3 are clause-simplexes and 1 is a clause-complex, a ratio of three to one. The ratio of total words (462) to lexical items (231) is exactly 2:1 and the average lexical density across the 4 texts (clauses÷lexical items) is 3.5. The mean length of each clause is 7.0 words.

Three of four texts utilise fewer simplexes than complexes. The characterisation of this group would be that the use of clause complexes exceeds the use of clause simplexes, with the ratio being about 3:2.

5.1.2.1 Sentence constituents (Year 3 Expositions)

Table 5. 1-10 Sentence length – breakdown to clause simplex and complex (Year 3 Expositions)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no explicit dependency (simplex)	With paratactic dependency (complex)	With hypotactic dependency (complex)	With dependency of both types (complex)	Total nexuses
1	14	38.9	14				
2	15	41.7		6	9		15
3	5	13.9			2	3	10
4	2	5.6				2	6
5							
6							
7							
8							
Total	36	100	14	6	11	5	31
%			38.9	16.7	30.6	13.9	

In Table 5. 1-9, we see that the 36 sentences in the Year 3 Expositions are made up of 14 clause simplexes and 22 clause complexes. Table 5. 1-10 analyses these sentence constituents. A significant proportion, 14 of 36 sentences, or 38.9%, contain a single clause (Columns A to D). Interestingly, in Year 3 Expositions the most common number of clauses per sentence is not one, but two; there are 15 of these, comprising 41.7% of the total sentences (Column B). Together, one- and two-clause sentences make up the bulk (80.6%) of the sentences (Column C); only 5 sentences contain three clauses and only 2 sentences contain four clauses, the maximum number of clauses per sentence in this text-group (Column B).

Put another way, the 14 clause simplexes represent 39% of the total clauses, leaving 61% of clauses involved in a complex. The clause complexes are of varying length: 42% are 2 clauses long, 14% are 3 clauses long and 6% are 4 clauses long. 61.1% of sentences are clause complexes. In these clauses complexes, there are about half as many paratactic as hypotactic, 6 to 11 (Columns E and F); a smaller number, 5, contain both paratactic and hypotactic relations. Both 3- and 4-clause sentences have relations of both types (Column G). In the Year 3 Expositions, hypotactic relations predominate in the shorter sentences. In this data set, nexuses total 31 (Column H).

Table 5. 1-11 Tally and percentage of dependency type between clauses (Year 3 Expositions)

Nexus type	Count	% of relation type
Paratactic	11	35.5
Hypotactic	20	64.5
Total	31	

Table 5. 1-11 tallies the number and percentages of interdependency relations between clauses, taking into account clauses that contain both paratactic and hypotactic relations, and dividing the clauses into those two classes. Hypotactic clauses dominate, with there being about twice the number of paratactic relations; to express this another way, there are about 1/2 as many paratactic as hypotactic clauses.

Table 5. 1-12 shows usage of the logico-semantic relations, expansion and projection.

Table 5. 1-12 Taxis/logico-semantic relations in clause complexes (Year 3 Expositions)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification				
		description		1	1	
	extension	addition: additive	6			
		addition: adversative	2			
		variation		2		2
		alternation				
	enhancement	temporal		3	3	
		spatial				
		manner				
		cause	2	7	6	1
		conditional	1			
projection	locution idea	(speech)		1	1	
		(thought)		6	6	
		Total	11	20	17	3

Column D of Table 5. 1-12 shows the 11 instances of parataxis. The complexes are expanded through *extension: addition* (6 additive and 2 adversative) and through two

sub-types of *enhancement* – *:cause* (2) and *:conditional* (1). There are no instances of paratactic *projection*.

Column E shows the 20 instances of hypotaxis. All 3 types of *expansion* are utilised: *elaboration: description* (1), *extension: variation* (2), and in *enhancement*, two sub-types – *:temporal* (3), and *:cause* (7). There are 6 instances of *projection: idea* (reported thought) and 1 instance of *projection: locution* (reported speech). These 20 hypotactic clause complexes employ dependent clauses of both finite (17) and non-finite forms (3).

We turn now to look at the disposition of embedded clauses.

Table 5. 1-13 Dispersion and count of ranking clauses (Year 3 Expositions)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	14	14	2	12
2	15	30	5	25
3	5	15	1	14
4	2	8		8
5				
6				
7				
8				
Total	36	67	8	59
%			11.9	88.1
Average per text	9	16.75	2	14.75

Moving from ranking clauses to embedded clauses, Table 5. 1-13 shows that, in sentences of any length, the number of clauses that do not contain embedding substantially exceed the number that do. Over the text-group as a whole, 59 clauses, or 88%, do not contain embedding; 8 (or 12%) do.

It is that 8 (or 12%) of ranking clauses that contain embedding that we are now interested in. We extend the analysis of Table 5. 1-13, explicating in the main, Column D of that table. Table 5. 1-14 tallies (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the functional constituent element of its host clause (Columns D and E).

Table 5. 1-14 Embedding in ranking clauses (Year 3 Expositions)

A	B	C	D	E	F
Ranking clause contains/ Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
embedded clause/s as postqualifier in a nominal group	3	[[]Q	3		{rather} than talking to someone [[you hardly know]] on the computer (17. Jasper)
		[[[]Q]Q			
		multiQ			
	1	[[//]Q		1	dogs will protect you're house from robbers and people [[that walk past // and try to pop in]]. (19. Maisie)
	1	[[// //]Q	1		Secondly, junk food doesn't give us the nutrients [[we need // to grow strong // and give us energy]]. (18. Josh)
		[[// // //]Q			
embedded clause/s as a whole nominal group		[[]clH			
		[[[]Q]clH			
		multiclH			
		[[//]clH			
		[[// //]clH			
		[[// // //]clH			
		[[// []Q]clH			
		[[<<>>]clH			
both		mixed			
	5	Totals	4	1	
Summary					
Qualifier in a nominal group	5	100%	4	1	
Whole nominal group	0		0	0	
Total	5	100%	4	1	
			80%	20%	

In the Year 3 Expositions, 5 of 67 clauses contain embedded clauses. Table 5. 1-14 shows all instances being *embedded clauses as a Qualifier in a nominal group*, denoted here with a final Q. Four of the five instances occur as a Participant, and one occurs in a Circumstance. There are no instances where the whole nominal group is realised by an embedded clause.

Table 5. 1-15 essentially provides a different way of looking at the data in Table 5. 1-14, foregrounding complexity of the embedding, with some additional finer detail of layers of embedding.

Table 5. 1-15 Embedded clauses (Year 3 Expositions)

A	B	C	D
Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
3	simplexes		3
3	[[]]	Lastly dogs are good [[to play with]] (19. Maisie)	3
	[[]]c (multiple in one clause)		
	[[]]el (multiple in one element/group)		
	[[e]] (with an embedded clause)		
	e[[]]Q (form of [[e]])		
2	complexes		5
1	[[// //]]	Secondly,<<>>dogs will protect you're house from robbers and people [[that walk past // and try to pop in]] . (19. Maisie)	1
			1
1	[[// // //]]	Secondly, junk food doesn't give us the nutrients [[we need // to grow strong // and give us energy]] . (18. Josh)	1
			1
	[[// // [[]]]]		
	[[<<>>]] incl		
5	Total		8
Summary of complexity of embedded clauses			
simplexes	3	60%	Average per text: 0.75
complexes	2	40%	Average per text: 0.5
Totals	5	100%	Average per text: 1.25

To look at the embedded clauses in terms of their complexity, we turn to Table 5. 1-15. Three of the embedded clauses are simplexes and two are clause complexes, accounting for the total of 5 clauses with embeddings (Column A). One clause complex contains 2 clauses (...*people* **[[that walk past // and try to pop in]]**) and the other, 3 clauses: (... *the nutrients* **[[we need // to grow strong // and give us energy]]**). Examples of each construction are given in Column C. Column D sets out the number of individual clauses embedded for each construction, and then totals

these over the simplexes and complexes; the grand total appears in the bottom row of Column D and, for this text-group, amounts to 8.

Table 5. 1-16 Detail of use of embedded clauses (Year 3 Expositions)

A	B	C	D	
Placement shorthand	How embedding manifests	Simplex/ individual clause count	Examples	
in_ng_(P)	as Qualifier in a nominal group in a Participant 2+(1x3)	5	{rather} than talking to someone [[you hardly know]] on the computer (17. Jasper)	receiver
			Secondly, junk food doesn't give us the nutrients [[we need // to grow strong // and give us energy]] . (18. Josh)	goal
			They also help people [[who are blind]] especially. (19. Maisie)	goal
in_ng_(C)	as Qualifier in a nominal group in a Circumstance	2	Secondly, <<>>dogs will protect you're house from robbers and people [[that walk past // and try to pop in]] . (19. Maisie)	contingency: condition
in_ng_(e)_(P)	as Qualifier in a nominal adjectival group in a Participant	1	Lastly dogs are good [[to play with]] (19. Maisie)	attribute
in_ng_(e)_(C)	as Qualifier in a nominal adjectival group in a Circumstance			
clH_(P)	as whole nominal group in a Participant			
clH_(C)	as whole nominal group in a Circumstance			
in_XX_(P)	in a group complex that is Participant			
in_XX_(C)	in a group complex that is Circumstance			
	Total	8		
Summary of function of embedding and as Participant or Circumstance				
as Qualifier in a nominal group in a Participant		6	(includes 3 from group complex)	
as whole nominal group in a Participant				
as Qualifier in a nominal group in a Circumstance		2		
as whole nominal group in a Circumstance				
Total		8		

A final perspective on the embedded clauses is provided by Table 5. 1-16 which reveals how the embedding is manifested (Column B; shorthand in Column A) for each of the 8 instances of embedded clauses in Year 3 Expositions. From Column C it may be seen all present as *Qualifier in a nominal group*, 5 (62.5%) in a

straightforward noun group in a Participant (in_ngQ_(P)); 2 (25%) in a straightforward noun group as part of a Circumstance (in_ngQ_(C)), and 1 (12.5%) in an adjectival nominal group in a Participant (in_ngQ_(e)_(P)). (Note, there are five other manifestations identified which do not occur in Year 3 Expositions.) Column D gives examples.

5.1.2.2 General description (Year 3 Expositions)

The Year 3 Expositions have been characterised according to average length in terms of sentences (9) and individual ranking clauses (16.75) and by a simple word average (116) which has been divided into lexical (58) and, by calculation, grammatical (58) items. Lexical density has been calculated (3.5). The ranking clauses have been further described by average usage of clause-simplexes (3.5) and clause-complexes (5.5). The explicit logical relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 35.5% to 64.5%.

Embedded clause usage has been tallied from two perspectives: (i) number of clauses containing embedding and (ii) number of embedded clauses. The average per text for (i) is (2): clauses containing embedded simplexes (0.75); those with clause complexes (0.5). The average per text for (ii) is (1.25): embedded simplexes (0.75) and embedded complexes (0.5). When employed, embedded clauses are used as qualifiers in a nominal group (100%) but not as Whole nominal groups (0%). They are involved in (or as) Participants (80%) and (or as) Circumstances (20%).

In summary, in Table 5. 1-9, some general features of the Year 3 Expositions are gathered together and summarised. The rest of the tables in Section 5.1.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of analysis: a look at the Experiential elements of the texts (Section 5.1.3, looking first at the functional elements in a clause (Processes, 5.1.3.1; Participants, 5.1.3.2; Circumstances,0), and then at the breakdown of the nominal group, 5.1.3.4).

Now we turn to look more closely at the functional constituents of the sentences/clauses.

5.1.3 Clause constituents – Transitivity (Year 3 Expositions)

5.1.3.1 Processes (Year 3 Expositions)

5.1.3.1.1 Functional types of Processes (Year 3 Expositions)

Table 5. 1-17 Process types (Year 3 Expositions)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	42	4	46	62.7	61.3
mental	7	1	8	10.4	10.7
mental: cognition	7	1	8	10.4	10.7
mental: desideration					
mental: emotion					
mental: perception					
relational	16	3	19	23.9	25.3
R attrib: intens	10	2	12	14.9	16.0
R attrib: circ					
R attrib: poss	5	1	6	7.5	8.0
R id: intens	1		1	1.5	1.3
R id: circ					
R id: poss					
Subtotal(principal)	65	8	72	97.0	97.3
Subsidiary					
behavioural					
verbal	2		2	3.0	2.7
existential					
Subtotal(subsidiary)	2		2	3.0	2.7
Total	67	8	75	100	100
%	89.3	10.7	100		
Count of different Process types used	4	3	4		

We now turn to Transitivity and Process types, as set out in Table 5. 1-17. To take in the ‘big picture’ first, it is useful to start at the second and third last rows. Here we see there are 67 ranking clauses and 8 non-ranking clauses, making a total of 75; in terms of proportions, ranking clauses make up 89.3% of the clauses and non-ranking only 10.7%.

Now we focus on principal and subsidiary Processes. Principal Processes dominate, making up 97% whether either ranking clauses alone or all clauses are considered; subsidiary clauses constitute the remaining 3%.

Of the principal ranking Processes, material are most common (42), then relational (16), then mental (7). There are two subsidiary Processes, shown in the bottom portion of Table 5. 1-17, both of which are verbal.

The non-ranking clauses are few (Column C) and are only of the principal type. Usage shows a different order to the ranking clauses: material (4), relational (3), mental (1), giving the overall pattern of usage as: material first (46 or 61.3%), then relational (19 or 25.3%), finally mental (8 or 10.7%). Within the relational Processes in ranking clauses, *attributive intensive processes* occur most often, 10 times; two other types are used, *attributive possessive* (5) and *identifying intensive* (1). A similar pattern holds for relational Processes in the non-ranking clauses, with *attributive intensive* occurring most often (2) and the only other example being *identifying possessive* (1). With respect to mental Processes, the only type used is *cognition* – 7 in ranking clauses, and 1 in non-ranking clauses.

Across clause types, the frequency of use of types of processes is:

material	46	(61.3%)
relational	19	(25.3%)
mental	8	(10.7%)
verbal	2	(2.7%)
existential	0	(0%)
behavioural	0	(0%)
Total	75	(100%)

Year 3 use four types of Processes in the ranking clauses in their Expositions (omitting existential and behavioural), and three in their embedded clauses (omitting the subsidiary types, behavioural, verbal and existential).

5.1.3.1.2 Realisation – form of Processes (Year 3 Expositions)

Table 5. 1-18 Process form (Year 3 Expositions)

Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Complexity:					
verbal group simplexes	34	7	41	50.7	54.7
verbal group complexes	33	1	34	49.3	45.3
Total	67	8	75	100	100
Other features:					
phrasal verbs		2	2		
modal finites	29		29		
modal adjuncts	7		7		

The general form of the Processes is given in Table 5. 1-18. With respect to complexity of the verbal group in ranking clauses, the split between verbal group simplexes and verbal group complexes is about even: 34 simplexes and 33 complexes. In the non-ranking clauses, there are more simplexes (7) than complexes (1), meaning that overall, there is an exact two to one majority of verbal group simplexes (41) over verbal group complexes (34): 54.7% to 45.3%.

Table 5. 1-19 Verb complexing summary (Year 3 Expositions)

Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis					
expansion elaboration					
expansion extension					
expansion enhancement					
projection not applicable					
Hypotaxis	33	1	34	100	100
expansion elaboration	9		9	27.3	26.5
expansion extension	15	1	16	45.5	47.1
expansion enhancement	3		3	9.1	8.8
projection	6		6	18.2	17.6
Multiple					
Total	33	1	34	100	100

Table 5. 1-19 gives further detail on the 34 verbal group complexes tallied in the previous Table. There are no instances of paratactic expansion or projection in the verbal group, with all complexing involving hypotaxis. Most of these – 33 – occur in ranking clauses, with only one occurrence in a non-ranking clause. Within both types of clauses, the most common form of hypotaxis is *expansion: extension* (15 ranking,

1 non-ranking). The ranking clauses contain, in addition, *expansion: elaboration* (9), *projection* (6) and *expansion: enhancement* (3).

Table 5. 1-20 Instances of complexing in the verb (Year 3 Expositions)

A	B	C	D	E
Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis				
expansion elaboration				
expansion extension				
expansion enhancement				
projection				
Hypotaxis	34			
expansion elaboration	9	junk food should be banned from canteens (18. Josh)	material	passive elab
		Lastly, junk food should be banned in canteens (18. Josh)	material	
		They are called Guard Dogs. (Maisie) (19. Maisie)	R id: intens	
		junk food should be banned (20. Mike)	material	
		Firstly, junk food must be banned (20. Mike)	material	
		Junk food must only be eaten sometimes. (20. Mike)	material	
		junk food must be banned (20. Mike)	material	
		Junk food shouldn't be eaten all the time, only sometimes. (20. Mike)	material	
		So junk food must be banned. (20. Mike)	material	
expansion extension	16	Junk food can also develop dietabetes, (17. Jasper)	material	gen ext can
		you can acturly, be doing something (17. Jasper)	material	gen ext can=> modality
		you could be playing it in real life. (17. Jasper)	material	
		you could play with a friend or a pet (18. Josh)	material	
		Firstly, junk food can make children obese (18. Josh)	material ⁵	
		which can develop fat on children. (18. Josh)	material	
		Children can get diabetes. (18. Josh)	material	
		We can't eat too much (18. Josh)	material	
		because our organs can't function properly. (18. Josh)	material	
		Little dogs can make a very loud sound. (19. Maisie)	material	
		Lastly, we must learn to eat from healthy food groups (20. Mike)	material	gen ext learn
		(19. Maisie)	material ⁶	gen ext try
		because junk food doesn't help us grow strong and healthy. (18. Josh)	material ⁶	caus ext reussive

⁵ This process is labelled material, with the 'causative' element accounted by the presence of a resultative attribute (*obese*). See IFG3 p183, 195.

⁶ These processes is labelled material, with a 'causative' element accounted for grammatically in the meaning of the complexing (Column E). See Appendix B (**Error! Reference source not found.**).

		Secondly, junk food doesn't help us grow strong. (20. Mike)	material ⁶	
		Healthy food does {help us grow strong}, (20. Mike)	material ⁶	
		but junk food doesn't help us grow strong. (20. Mike)	material ⁶	
expansion enhancement	3	they make you lose long distance eye sight (17. Jasper)	material ⁶	caus mod agency hi
		and {make you} lose concentrashion (17. Jasper)	material ⁶	
		and dietabetes can make you sick (20. Mike)	material	
projection	6	that they'll stop in a certain amount of time (17. Jasper)	material	proj Posal:idea will
		or we will have too much fat on us. (18. Josh)	R attrib: poss	
		Secondly, <<>>dogs will protect you're house from robers and people [[that walk past // and try to pop in]]. (19. Maisie)	material	
		For example dogs like to play catch with the ball down at the beach and park. (19. Maisie)	material	proj Posal:idea want
		Thirdly, We need to eat from the 5 food groups (20. Mike)	material	proj Posal:idea need
		We need to eat 2 fruit and 5 vegetables daily. (20. Mike)	material	
Multiple				
Total	34			

All instances of complexing in this text-group are displayed in Table 5. 1-20. It is interesting to note the use of the passive and causation and the use of modality (shown by 'can') in these early Expositions.

5.1.3.2 Participants (Year 3 Expositions)

5.1.3.2.1 Functional types of Participants (Year 3 Expositions)

Participant roles are set out in Table 5. 1-21. The numbers in ranking clauses are set out in Column C, non-ranking clauses in Column D, and the total an Column F. Column C as a ratio with the total ranking clauses appears in Column F and as a ratio with the total clauses, ranking and non-ranking, appears in Column G.

Table 5. 1-21 Participant roles (Year 3 Expositions)

A	B	C	D	E	F	G
Process type	Participant roles	Ranking	Embedded	All	% Ranking	% Total
material	actor	30	1	31	27.0	26.1
	goal	29	1	30	26.1	25.2
	<i>oblique</i> recipient	1	1	2	0.9	1.7
	client					
	scope	1		1	0.9	0.8
	initiator	2		2	1.8	1.7
	attribute: depictive					
	attribute: resultative	5		5	4.5	4.2
mental	senser	7	1	8	6.3	6.7
	phenom					
	<i>oblique</i> inducer					
relational: attrib	carrier	15	2	17	13.5	14.3
	attribute	15	2	17	13.5	14.3
R attrib: intens	carrier	9	1	10	8.1	8.4
	attribute	9	2	11	8.1	9.2
R attrib: circ	carrier (cir:att)	1		1	0.9	0.8
	attribute (cir:att)	1		1	0.9	0.8
	carrier (cir:pr)					
	attribute (cir:pr)					
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	5	1	6	4.5	5.0
	attribute: possessed(poss:pr/carr:p'r)	5		5	4.5	4.2
	carrier: possessed(poss:pr/carr:p'd)					
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary	1		1	0.9	0.8
relational: ident	token	1		1	0.9	0.8
	value	1		1	0.9	0.8
R id: intens	token	1		1	0.9	0.8
	value	1		1	0.9	0.8
R id: circ	token(circ)					
	value(circ)					
R id: poss	token(poss)					
	value(poss)					
<i>oblique</i>	assigner					
behavioural	behave					
	<i>oblique</i> behaviour					
	phenomenon(b)					
verbal	sayer	1		1	0.9	0.8
	receiver	2		2	1.8	1.7
	<i>oblique</i> verbiage					
	target					
existential	existent					
	Total	111	8	119	100	100

	Count of different Participant roles used	14	6	14		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, recipient, attribute; initiator	68	3	71	61.3	59.7
mental	sensor, phenomenon; inducer	7	1	8	6.3	6.7
relational		33	4	37	29.7	31.1
attribution identification	carrier, attribute, beneficiary, attributor	31	4	35	27.9	29.4
	token, value; assigner	2		2	1.8	1.7
behavioural	behaviour; phenomenon(b)					
verbal	sayer, receiver; verbiage, target	3		3	2.7	2.5
existential	existent					
		111	8	119	100	100

The main Participant roles are of course taken by those that are directly involved with the Process, in descending order of frequency of use.

	Processes %	Participants %
material	61.3	59.7
relational	25.3	31.1
mental	10.7	6.7
verbal	2.7	2.5
existential	0	0
behavioural	0	0
Total	100	100

There is no need to comment on these more than on passing, as they are largely self-evident. We are, however, interested in the more obliquely involved Participants, and our observations will revolve around those. Table 5. 1-22 collates information about the use of the indirectly involved Participants that are counted in Table 5. 1-21. Column A again sections the table according to Process type: material, mental, relational, behavioural, verbal, existential, and relational Processes here are again separated into relation-type (attributive or identifying). Column B again lists Participant roles associated with the Process types in Column A, this time separating them into directly and obliquely involved types. Columns C and D record the usage. This allows a window into where different Year group texts are broadening the meaning in their clauses through an increased use of oblique Participant roles.

Table 5. 1-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 3 Expositions)

Range of Participant roles used, directly and obliquely involved with the Process						
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	<i>direct</i>	<i>oblique</i>	<i>Total</i>			
material	2	6	8	2	4	6
mental	2	1	3	1		1
relational	4	3	7	4	1	5
attributive	2	2	4	2	1	3
identifying	2	1	3	2		2
behavioural	1	2	3			
verbal	2	2	4	2		2
existential	1	0	1		0	
Total	12	14	26	9	5	14

In Table 5. 1-22 Column C echoes exactly B(i), showing that those Participant roles that are directly related to the process types are all used in the Year 3 Expositions. This accounts for 9 of the Participant roles used. The remaining 5 are used as per Column D, which shows that the material clauses employ 4 Participants that are obliquely involved, and in relational clauses there is one use of oblique Participant role.

5.1.3.2.2 Realisation – form of Participants (Year 3 Expositions)

Table 5. 1-23 Summary of forms taken by Participants (Year 3 Expositions)

Participants in ranking clauses					Participants in embedded clauses					Both
Nominal group			Prepositional phrase	Adverbial group	Nominal group			Prepositional phrase	Adverbial group	Total
Noun group	Adjectival group	Clause			Noun group	Adjectival group	Clause			
97	13			1	6	2				119
110					8					
111					8					

For information on the forms taken by the Participants listed in Table 5. 1-21, see Table 5. 1-23. By far the majority appear in noun groups, whether in ranking clauses (97) or non-ranking clauses (6). In both ranking and embedded clauses the next most common form is the adjectival group – 13 in ranking clauses, 2 in non-ranking. The only other form only appears in ranking clauses and is an adverbial group.

Table 5. 1-24 Detail of forms taken by Participants (Year 3 Expositions)

Table 3.1: A breakdown of forms taken by Participants (Year 5 Exposition)													
A	B	C	D	E	F	G	H	I	J	K	L		
	Participants in ranking clauses					Participants in embedded clauses					Both		
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total		
	noun group	adj. group	clause			noun group	adj. group	clause					
Nominal groups													
One group	96	13				6	2				117		
Single function (Head only)	55	12				6	2				75		
Pre-mod + Head (no post-mod)	37										37		
Post-mod (may be pre-mod)	4	1									5		
Two+ groups	1										1		
Adverbial groups													
One group					1						1		
Head only					1						1		
Pre-mod + Head (no Post-mod)													
Post-mod (may be pre-mod)													
Two+ groups													
Summary of forms taken by Participants													
Noun groups	97					6					103		
Adj. nominal groups						13						2	15
Clauses													
Prepositional phrases													
Adverbial groups												1	
Total all	111					8					119		

Table 5. 1-23 is expanded into Table 5. 1-24.

Looking at the Participants consisting of or containing one nominal group, a large majority contains a Head only (75 of 117 or 64.1%). For example, within the noun groups there are 55 in ranking clauses, 6 in embedded. Next is usage of the nominal groups that contain a pre-modifying function (37 of 117 or 31.6%). Nominal groups with a post-modifying function occur 4 times (or 3.4%). Usage of more than one nominal group in a nominal group complex as Participant occurs 1 time, in a ranking clause (representing 0.8% of the total participants). There is also 1 adverbial group used as a Participant (0.8%). Examples of the forms discussed through Table 5. 1-24 are presented in Table 5. 1-25.

Table 5. 1-25 Examples of forms taken by Participants (Year 3 Expositions)

Function feature	Form	Example	Participant role	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	noun group	concentrashion (17. Jasper)	goal	
	noun group	dietabetes (20. Mike)	attributor	
	adj group	obese (18. Josh)	attribute	
with Pre-mod function	noun group	junk food (18. Josh)	initiator	
	noun group	a computer sport game (17. Jasper)	goal	
	noun group	lots of fat (20. Mike)	attribute: possessed(po ss:pr/carr:p'r)	Focus – selecting
	noun group	lots of fat, sugar and salt. (20. Mike)	attribute: possessed(po ss:pr/carr:p'r)	Focus – selecting
With Post-mod function	noun group	Sugar in junk food (20. Mike)	actor	Qualifier – phrase
	noun group	to someone [[you hardly know]] (17. Jasper)	receiver	Qualifier – clause
	noun group	the nutrients [[we need // to grow strong // and give us energy]]. (18. Josh)	goal	Qualifier – clause
	noun group	people [[who are blind]] (19. Maisie)	goal	Qualifier – clause
	adj group	good [[to play with]] (19. Maisie)	attribute	Qualifier – clause
Two+ groups				
with Pre-mod with Pre-mod	prepositional phrase contains noun group complex	for elderly people and young people. (19. Maisie)	client	para extension
with Pre-mod with Pre-mod	noun group noun group	2 fruit and 5 vegetables (20. Mike)	goal	para extension
Adverbial groups				
Head only	adv group	away in when you are away on a holiday (19. Maisie)	attribute (cir:att)	

5.1.3.3 Circumstances (Year 3 Expositions)

5.1.3.3.1 Functional types of Circumstances (Year 3 Expositions)

Table 5. 1-26 Types of Circumstances (Year 3 Expositions)

Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive					
accomp: comitative					
angle: source					
angle: viewpoint					
cause: behalf	2		2	7	7
cause: purpose					
cause: reason	2		2	7	7
contingency: concession					
contingency: condition	1		1	4	4
contingency: default					
extent: distance					
extent: duration					
extent: frequency					
location: place	12	1	13	44	46
location: time	5		5	19	18
manner: comparison					
manner: degree	1		1	4	4
manner: means	3		3	11	11
manner: quality	1		1	4	4
matter					
role: guise					
role: product					
Total	27	1	28	100	100
%	96	4	100		
Count of different types of Circumstances used	8	1	8		

Types of Circumstances are shown in Table 5. 1-26, separated into ranking and other clauses. In terms of frequency of occurrence, first and second place are held by location – location:place making up 46% of the total, location:time making up 18%; thus together taking up 64% of the Circumstances. Next in frequency is manner: means, 11% of the total, followed by cause:reason, and cause:behalf, each 7%, and manner:quality, 7%. Three other Circumstances occur in ones across the Table (contingency:condition, manner:degree, and manner:quality). Of the 22 Circumstance types listed, only 8 are used by this text-group.

5.1.3.3.2 Realisation – form of Circumstances (Year 3 Expositions)

Table 5. 1-27 Summary of forms taken by Circumstances (Year 3 Expositions)

Table 5: 1-27 Summary of forms taken by Circumstances (Pearl's Expositions)						
Circumstances in ranking clauses			Circumstances in embedded clauses			All
Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
20	2	5			1	28
27			1			

Table 5. 1-28 Detail of forms taken by Circumstances (Year 3 Expositions)

A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	17	1					18
Single function (Head only)	6						6
Pre-mod + Head (no post-mod)	11	1					12
Post-mod (may be pre-mod)							
Two+ groups	3	1					4
Adverbial groups							
One group			5			1	6
Single function (Head only)			4			1	5
Pre-mod + Head (no post-mod)							
Post-mod (may be pre-mod)			1				1
Two+ groups							
Summary of forms taken by Circumstances							
Prepositional phrases	20						20
Noun groups	2						2
Adverbial groups				5	1		6
Total all	27			1			28

From the simple group detail (Table 5. 1-28), the form of circumstances containing one nominal group accounts for 18, adverbial groups 10 and two+nominal groups 4 of the total 28 occurrences. Within the cases involving one nominal group, 12 are with pre-modifying function, 6 are single function, and none have a post-modifying function.

From the bottom row of the Table it may be seen that the strong majority, 27, are within ranking clauses and only 1 occurs in an embedded clause.

Examples of the forms taken by Circumstance (Year 3 Expositions) are in Table 5. 1-29.

Table 5. 1-29 Examples of forms taken by Circumstances (Year 3 Expositions)

Function feature	Form	Example	Participant role	Note
Prepositional phrases / nominal groups				
One group				
Head only (including clause as Head)	prep phrase	from canteens <i>in</i> junkfood should be banned from canteens (18. Josh)	location: place	
	prep phrase	on us <i>in</i> we will have too much fat on us (18. Josh)	location: place	
with Pre-mod function	prep phrase	with a digital pet <i>in</i> ...playing with a digital pet (17. Jasper)	accomp: comitative	
	prep phrase	with a ball <i>in</i> dogs like to play catch with a ball (19. Josh)	accomp: comitative	
	prep phrase	from healthy food groups <i>in</i> we must learn to eat from healthy food groups (20. Mike)	location: place	
	prep phrase	from junk food <i>in</i> more children are getting obese from junk food (20. Mike)	cause: reason	
With Post- mod function				
Two+ groups				
with Pre-mod with Pre-mod	prepositional phrase contains noun group complex	with a friend or a pet (17. Jasper)	accomp: comitative	para extension
Head only with Post-mod	prepositional phrase contains noun group complex	from robbers and people [[that walk past // and try to pop in]]. (19. Maisie)	contingency: condition	para extension
with Pre-mod adv group	noun group/ adv group	Junk food shouldn't be eaten all the time, only sometimes. all the time, only sometimes (20. Mike)	location: time	para elab noun gr and adv group
Adverbial groups				
Head only	adv group	properly <i>in</i> our organs can't function properly (18. Josh)	manner: quality	
Head only	adv group	especially <i>in</i> They also help people who are blind especially?? (19. Maisie)	manner: degree	
Pre- mod	adv group	only sometimes (20. Mike)	location: time	mod
Post-mod	adv group	closer [to a computer[then a t.v.]] (17. Jasper)	location: place	expansion
Head only in embedded clause	adv group	past <i>in</i> people [[that walk past // and try to pop in]]. (19. Maisie)	location: place	

5.1.3.4 The Nominal Group – a special case (Year 3 Expositions)

In this section are collected together the nominal groups from the Participants and Circumstance, from both ranking and embedded clauses, from the Year 3 Expositions.

Table 5. 1-30 Nominal groups (Year 3 Expositions)

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	73	8	6	87	48.3	57.6
Head=Thing	60	6	5	71	39.7	47.0
Head≠Thing, elliptical	1			1	0.7	0.7
Head≠Thing, Epithet	12	2	1	15	7.9	9.9
Pre-mod + Head only	49		9	58	32.5	38.4
Head=Thing	49		8	57	32.5	37.7
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus			1	1		0.7
Post-modification	5		1	6	3.3	4.0
with qualifying phrase	1			1	0.7	0.7
with qualifying clause	4		1	5	2.6	3.3
with multiple qualifiers						
Total	127	8	16	151	84.1	100

The overall conclusions from Table 5. 1-30 are that a majority of the nominal groups contain a single function only (87 from 151 nominal groups, or 57.6%) and that a large minority contain a pre-modifying function (58 from 151 nominal groups, or 38.4%). A small minority contain a post-modifying function (6 from 150 nominal groups, or 4.0%).

Now we will look briefly at the three individual sections of Table 5. 1-30. Firstly, of the single function nominal groups, by far the most are conventional noun groups, where the Head conflates with Thing (71 from 87, or 81.6%). A few are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet or Classifier, both lexical entities (15 of 87, or 17.2%) and only one has the Head conflated with an element other than an Epithet or Classifier, a non-lexical entity (1.5%). Secondly, of the nominal groups consisting of pre-modifier + Head, again by far the most have Head conflated with Thing (57 of 58, or 98.2%). The only other usage involves the use of focus (an extended numerative) – (1 of 58, or 1.8%). There

are no instances of pre-modification in an adjectival nominal group. Thirdly, in the 4.0% of clauses that contain a post-modifying element, most (5 of 6 or 83%) contain a qualifying clause, one (or 17%) a qualifying phrase. There are no instances of a nominal group containing multiple qualifiers.

Examples of nominal groups appear in Table 5. 1-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the left-most position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 5. 1-31 Examples of nominal groups (Year 3 Expositions)

Total	% Total	Feature	Example		Notes/type
87	57.6	single function – Head only			
71	47.0	Head=Thing	pronouns (67.6%), common nouns (32.4%). No proper nouns. (No word complexes or multi-word items.) (Personal pronouns 59.2%).		
1	0.7	Head≠Thing, elliptical	too much <i>in</i> we can't eat too much (18. Josh)		numerative only
15	9.3	Head≠Thing, Epithet	bad <i>in</i> computer games are bad for you (17. Jasper)		
			modification in Epithet (1/15) : very vicious <i>in</i> some dogs are very vicious (19) is this still single function?		modification in Epithet
			word complex (1/15): strong and healthy <i>in</i> junkfood doesn't help us grow strong and healthy (18. Josh)		para exten in Epithet
58	38.4	Pre-mod + Head only			
57	37.7	Head=Thing	SEE TABLE BELOW		
		Head≠Thing, elliptical			
		Head≠Thing, Epithet			
1	0.7	Head≠Thing, focus	all the time <i>in</i> Junk food shouldn't be eaten all the time, only sometimes. (20. Mike)		
6	4.0	Post-modification			
1	0.7	with qualifier - phrase	single function (Head=Thing)	Sugar <i>in</i> junk food (20. Mike)	
5	3.3	with qualifier – clause	single function (Head=Thing)	someone [[you hardly know]] (17. Jasper)	relative clause as qualifier
			single function (Head=Thing)	people [[who are blind]] (19. Maisie)	relative clause as qualifier
			single function (Head=Thing)	people [[that walk past // and try to pop in]]. (19. Maisie)	relative clause complex as qualifier
			with Pre-mod (Head=Thing)	the nutrients [[we need // to grow strong // and give us energy]]. (18. Josh)	relative clause complex as qualifier
			single function (Head≠Thing, Epithet)	good [[to play with]] (19. Maisie)	non-finite clause as qualifier
		<i>multiple qualifiers</i>			
151	100	Total			

Concerning the question of how the Head is modified (Year 3 Expositions), it may be concluded that simple nominal groups of Head only are more common than those with pre-modifying functions by about 1.5 times (87:57) and about 14 times more common than those with post-modifying elements (87:6): broadly speaking, Year 3 favours pre-modification when amplifying the Head, but uses post-modification occasionally.

Again, now we will focus on the highlighted row from Table 5. 1-30, shown again for convenience here:

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	73	8	6	87	48.3	57.6
Head=Thing	60	6	5	71	39.7	47.0
Head≠Thing, elliptical	1			1	0.7	0.7
Head≠Thing, Epithet	12	2	1	15	7.9	9.9
Pre-mod + Head only	49		9	58	32.5	38.4
Head=Thing	49		8	57	32.5	37.7
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus			1	1		0.7
Post-modification	5		1	6	3.3	4.0
with qualifying phrase	1			1	0.7	0.7
with qualifying clause	4		1	5	2.6	3.3
with multiple qualifiers						
Total	127	8	16	151	84.1	100

Table 5. 1-32 displays the range of configurations of pre-modifying elements Deictic, Numerative, Epithet, Classifier and Thing used in nominal groups where the Head conflates with the Thing.

Table 5. 1-32 Pre-modification in the nominal group (Year 3 Expositions)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing	1	1.8	a certain amount of time (17. Jasper)	
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing				
DeicticNumerativeEpithetThing				
DeicticNumerativeThing				
DeicticNumerativeClassifierThing	1	1.8	the five food groups (20. Mike)	
DeicticEpithetClassifierThing				
DeicticEpithetEpithetEpithetThing				
DeicticEpithetEpithetThing				
DeicticEpithetThing	1	1.8	a very loud sound (19. Maisie)	
DeicticClassifierClassifierThing	1	1.8	a computer sport game (17. Jasper)	
DeicticClassifierThing	2	3.5	a digital pet (17. Jasper)	our digestive system (18. Josh)
DeicticThing	12	21.1	our organs (18. Josh)	the beach and park (19) word complex in thing
Deictic2Thing				
Deictic2ClassifierThing				
NumerativeClassifierThing				
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing				
NumerativeThing	7	12.3	lots of salt and sugar (18. Josh) word complex in thing	more children (20. Mike)
EpithetClassifierThing	1	1.8	healthy food groups (20. Mike)	
EpithetEpithetThing				
EpithetThing	6	10.5	good company (19. Maisie)	little dogs (19)
ClassifierClassifierThing				
ClassifierThing	25	43.9	long distance eyesight (17. Jasper) multi-word Classifier	junk food (18. Josh)
25 Total	57	100		
Count of different configurations used	10			

Of the 25 available patterns, 10 were used in the Year 3 Expositions. The most used configuration is ClassifierThing (with 43.9%). Next most common is DeicticThing (with 21.1%), followed by Numerative Thing (12.3%) and EpithetThing (10.5%). These four types consisting of only two elements make up 87.8% of nominal group forms. The remaining 12.2% of forms use three or four elements: 2 instances of

DeicticClassifierThing and 1 each of DeicticEpithetThing, EpithetClassifierThing, DeicticDeictic2NumerativeThing, DeicticNumerativeClassifierThing and DeicticClassifierClassifierThing.

High usage of Classifier Thing reflects over-repetition of the technical language of the field – junk food, in particular. Year 3 students are not employing synonyms or alternative structures to avoid repetition.

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 7 of the 57 (12.2%) involve the use of Epithets (using 3 configurations). Thirty (30) of the 57 nominal groups use a Classifier (52.6%) (using Classifier in 5 different configurations).

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres. In the case of the Year 3 Expositions, 39 of 57 (or 68.4%) noun groups do not use a deictic.

There is any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

We now turn to look at the comparable features in Year 4 Expositions.

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5.2 Findings: Year 4 Expositions

5.2.1 The Year 4 Expositions

5.2.1.1 Text 21. Should Children Be Able To Pick Their Teachers For Next Year? by Alicia

Table 5. 2-1 Text 21. Should Children Be Able To Pick Their Teachers For Next Year? (Alicia, 4/E)

21. Should Children Be Able To Pick Their Teachers For Next Year? (Alicia, 4/E)	Stages
<p>Position Statement</p> <p>I strongly believe children should not pick their teacher for next year because one class might have to[sic] many children.</p>	Statement of position
<p>Firstly, I strongly believe children should not pick their teachers for next year because, it is harder to learn things when you have so many children in your class. Also one class might only have thirteen children and the other classes might have twenty eight.</p> <p>Secondly, children might chose a teacher because their friends are. Then they might sit together and talk. That causes the children not to lisen[sic] to the teacher. If the children have not chose[sic] the teacher they might make more friends because their[sic] just not with their other friends.</p> <p>Thirdly, if a lot of children chose the one teacher the other teachers might get upset and fell like no children like them. Also the teachers might fell left out and the children might not care. Also if a children chose a teacher and was the only one who chose that teacher he or she might get bulled for choosing that teacher. The children might think other childrens[sic] teachers are mean, horrible and yells very loud. Some may not and begin a fight.</p>	Arguments
<p>In conclusion, I strongly believe[sic] that children should not pick their teachers for the next year, becayse[sic] every child might have the same teacher and learn less than they could of.</p>	Reinforcement of statement of position

Table 5. 2-2 Text 21. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with	Clauses with	Lexical items	Total words	Lexical density	Mean clause
-----------	-------------------	-------------------	---------	-----------------	-----------------	------------------	----------------	--------------------	----------------

				simplex embedding	complex embedding				length (words)
13	1	12	36	3	0	90	229	2.5	6.4

5.2.1.2 Text 22. Homework, by Allen

Table 5. 2-3 Text 22. Homework (Allen, 4/E)

22. Homework (Allen, 4/E)	Stages
I think homework is good because we learn more things. you could learn times tables or spelling.	Statement of position
I believe we should make a personal organiser because then you could watch your favourite shows and do homework. Also it tells you that you[sic] if you have soccer or dancing lessons. If you want homework to be easier you could just do it in one day.	Arguments

Table 5. 2-4 Text 22. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
5	1	4	12	1	0	32	64	2.7	5.3

5.2.1.3 Text 23. Should Children Be Able To Pick Their Teacher For Next Year, by Ann

Table 5. 2-5 Text 23. Should Children Be Able To Pick Their Teacher For Next Year (Ann, 4/E)

23. Should Children Be Able To Pick Their Teacher For Next Year (Ann, 4/E)	Stages
<p>Position Statement</p> <p>I strongly recommend that children should not be able to pick their teacher for the next year because the children would choose the teachers that their (friend) (friend) friends or family had. I believe this is not good because it doesn't allowe[sic] the child to meet and experiece[sic] a new teacher.</p>	Statement of position
<p>Firstly, if mojority[sic] of the classes choose the same teacher their[sic] would be problems. When I say their[sic] would be problems I mean that some children won't get the classes they want. If they don't get the classes they want some other people might tease them because they got the good class and the other person didn't get the class they wanted.</p> <p>Secondly, if children choose their own teachers they may choose the same teacher and if the teachers find out that they are not wanted they could feel really upset because no one wanted to be in their class.</p> <p>Overall, for all of my reasons I strongly recommend that children should not choose their own teachers. To top it all of I have another good reason and it is that children and maybe teachers would argue and have fights. Some children might say to another child you got the angry teacher and all other horrible things.</p>	Arguments
<p>This is why I strongly recommend that children should not be able to choose their teachers.</p>	Reinforcement of statement of position

Table 5. 2-6 Text 23. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
5	1	4	13	2	0	61	105	4.7	8.1

5.2.1.4 Text 24. Children should have Three weeks for the Easter Holiday, by Joe

Table 5. 2-7 Text 24. Children should have Three weeks for the Easter Holiday (Joe, 4/E)

24. Children should have Three weeks for the Easter Holiday (Joe, 4/E)	Stages
Four Blue believe that children should have three weeks holiday over Easter because two weeks is not enough to have a rest and a break from school[sic].	Statement of position
Four Blue think that we should have three weeks Easter holidays, so that we can read fantastic books and practise drawing at home. Two weeks would not be enough time to read a thick chapter book. Four Blue request that they should have three weeks Easter holiday so we can spend time with our family in three weeks.	Arguments
Four Blue recommend that all the catholic schools in Australia get an extra week of holiday over the Easter season.	Reinforcement of statement of position

Table 5. 2-8 Text 24. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
4	0	4	19	2	0	67	153	3.5	8.1

5.2.2 Sentence-level information (Year 4 Expositions)

Table 5. 2-9 Overview (Year 4 Expositions)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
21	13	1	12	36	3	0	90	229	2.5	6.4
22	5	1	4	12	1	0	32	64	2.7	5.3
23	5	1	4	13	2	0	61	105	4.7	8.1
24	4	0	4	19	2	0	67	153	3.5	8.1
Part B										
T	27	3	24	80	8	0	250	551		
Av	6.75	0.75	6	20	2	0	62.5	137.75	3.3	7.0

Texts 21-24 are the Year 4 Expositions. Sentence level characteristics of each text are set out in Table 5. 2-9, summarised in the final 2 rows. From this lower section of the table, it can be seen that the Year 4 Exposition data is contained in 27 sentences, comprised of 24 clause complexes (89%) and 3 clause simplexes (11%). Altogether there are 80 ranking clauses. Of the 80 clauses, 8 contain embedded clauses in some form (Columns F + G) (10%) while 72 (90%) do not (Columns E – (F + G)). Of the embedded clauses, all 8 are clause-simplexes and none are clause-complexes. The ratio of total words (551) to lexical items (250) is 2.1:1 and the average lexical density across the 4 texts (clauses÷lexical items) is 3.3. The mean length of each clause is 7.0 words.

All texts utilise fewer simplexes than complexes. The characterisation of this group would be that the usage of clause complexes far exceeds the usage of clause simplexes, with the overall ratio being 8:1.

5.2.2.1 Sentence constituents (Year 4 Expositions)

Table 5. 2-10 Sentences and clauses (Year 4 Expositions)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no explicit dependency (simplex)	With paratactic dependency (complex)	With hypotactic dependency (complex)	With dependency of both types (complex)	Total nexuses
1	3	11.1	3				
2	9	33.3		4	5		9
3	6	22.2			4	2	12
4	7	25.9			2	5	21
5							
6	1	3.7				1	5
7	1	3.7				1	6
8							
Total	27	100	3	4	11	9	53
%			11.1	14.8	40.7	33.3	

In Table 5. 2-9, we see that the 27 sentences in the Year 4 Expositions are made up of 3 clause simplexes and 24 clause complexes. In Table 5. 2-10 these bare figures are fleshed out. As may be seen from Columns A to D of Table 5. 2-10, the most common number of clauses per sentence in the Year 4 Expositions is two; there are 9 of these, comprising 33.3% of all sentences (Column B). The next most common

length is 4 clauses, (25.9%), followed closely by 3 clauses (22.2%). Together, these 2-, 4- and 3-clause length sentences make up 81.4% of the total sentences. Only now are simple sentences of 1 clause in length a feature, constituting just 11.1% of the total. There are also two very long sentences – 6- and 7- clauses long.

88.9% of sentences are clause complexes. In these clause complexes, sentences containing only hypotactic relations (11 sentences) are slightly more common than those containing relations of both types (9 sentences), with clause complexes containing only paratactic relations less common (4 sentences). These four are all of 2 clauses in length, while the longer sentences contain both types of relations. In this data set, nexuses total 53 (Column H).

Table 5. 2-11 Dependency relations between clauses (Year 4 Expositions)

Nexus type	Count	% of relation type
Paratactic	16	30.2
Hypotactic	37	69.8
Total	53	

Table 5. 2-11 tallies the number and percentages of logical relations between clauses, taking into account clauses that contain both paratactic and hypotactic relations, and dividing the clauses into those two classes. Hypotactic clauses dominate, with there being more than twice the number of paratactic relations; to express this another way, there are less than 1/2 as many paratactic as hypotactic clauses.

Table 5. 2-12 shows usage of the logico-semantic relations, expansion and projection.

Table 5. 2-12 Taxis/logico-semantic relations in clause complexes (Year 4 Expositions)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification				
		description		1	1	
	extension	addition: additive	13			
		addition: adversative	1	1	1	
		variation alternation				
	enhancement	temporal		1	1	
		spatial				
		manner		1	1	
		cause	2	12	10	2
		conditional		8	8	
	projection	locution idea	(speech)		4	4
(thought)				9	9	
		Total	16	37	35	2

Column D of Table 5. 2-12 shows the 16 instances of parataxis. The complexes are expanded through *extension: addition* (13 additive and 1 adversative) and through *enhancement: cause* (2). There are no instances of paratactic *projection*.

Column E shows the 37 instances of hypotaxis. All types of *expansion* are utilised: *elaboration: description* (1), *extension: addition* (adversative 6), and in *enhancement*, four sub-types – *:temporal* (1), *:manner* (1), *:cause* (12) and *:conditional* (8). There are 13 instances of *projection*, both of *projection: idea* (reported thought) (9) and *projection: locution* (reported speech) (4). These 37 hypotactic clause complexes employ dependent clauses of both finite (35) and non-finite forms (2).

Turning now from the make-up of sentences in terms of ranking clauses, the following group of tables transition focus to the occurrences and placements of embedded clauses.

Table 5. 2-13 Dispersion and count of ranking clauses (Year 4 Expositions)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	3	3	1	2
2	9	18	2	16
3	6	18	1	17
4	7	28	3	25
5				
6	1	6		6
7	1	7	1	6
8				
Total	27	80	8	72
%			10	90
Average per text	6.75	20	2	18

Table 5. 2-13 shows that, in sentences of any length (Columns A, B and C), the number of clauses that do not contain embedding (Column E) substantially exceed the number that do (Column D). Over the text-group as a whole, 72 clauses, or 90%, do not contain embedding; 8 (or 10%) do.

It is that 8 (or 10%) of ranking clauses that contain embedding that we are now interested in. We extend the analysis of Table 5. 2-13, explicating in the main, Column D of that table. Table 5. 2-14 tallies (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the functional constituent element of its host clause (Columns D and E).

Table 5. 2-14 Embedding in ranking clauses (Year 4 Expositions)

A	B	C	D	E	F
Ranking clause contains/ Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
embedded clause/s as postqualifier in a nominal group	7	[[]]Q	6	1	there is a popular teacher [[that most of the children choose]] (23) (Part)
		[[[]]Q]]Q			
		multiQ			
		[[//]]Q			
		[[// //]]Q			
		[[// // //]]Q			
embedded clause/s as a whole nominal group	1	[[]]clH	1		If you want [[homework to be easier]] (22. Allen)
		[[[]]Q]]clH			
		multiclH			
		[[//]]clH			
		[[// //]]clH			
		[[// // //]]clH			
		[[// []]Q]]clH			
		[[<<>>]]clH			
both		mixed			
	8	Totals	7	1	
Summary					
Qualifier in a nominal group	7	87.5%	6	1	
Whole nominal group	1	12.5%	1		
Total	8	100%	7	1	
			87.5%	12.5%	

In the Year 4 Expositions, 8 of 80 clauses contain embedded clauses. Table 5. 2-14 shows seven of the eight instances being of the embedded clause acting as a Qualifier in a nominal group, denoted here with a final Q. Six of the seven instances occur as a Participant. There is one instance where the whole nominal group is realised by an entire embedded clause, constituting a Participant in this case.

Table 5. 2-15 below essentially provides a different way of looking at the data in Table 5. 2-14, foregrounding complexity of the embedding.

Table 5. 2-15 Embedded clauses (Year 4 Expositions)

A	B	C	D
Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
8	simplexes		8
8	[[]]	because, it is harder [[to learn things]] (21. Alicia) and was the only one [[who chose that teacher]] (21. Alicia) and learn less [[than they could of]]. (21. Alicia) If you want [[homework to be easier]] (22. Allen) because two weeks is not enough [[to have a rest and a break from should]]. (23. Joe) Two weeks would not be enough time [[to read a thick chapter book]]. (23. Joe) if there is a popular teacher [[that most of the children choose]] (24. Nola)	8
	[[]]c (multiple in one clause)		
	[[]]el (multiple in one element/group)		
	[[e]] (with an embedded clause)		
	e[[]]Q (form of [[e]])		
	complexes		
	[[// //]]		
	[[// // //]]		
	[[// // [[]]]]		
	[[<<>>]]		
	incl		
8	Total		8
Summary of complexity of embedded clauses			
simplexes	8	100%	Average per text: 2
complexes			Average per text: 0
Totals	8	100%	Average per text: 2

To look at the embedded clauses in terms of their complexity, we turn to Table 5. 2-15. However, in the case of these Year 4 Expositions, embedding can be seen to be very straightforward. All of the embedded clauses are simplexes as shown, and thus the total of all individual embedded clauses tallied in Column D also amounts to 8.

Table 5. 2-16 Detail of use of embedded clauses (Year 4 Expositions)

A	B	C	D	
Placement shorthand	How embedding manifests	Simplex/ individual clause count	Examples	
in_ngQ_(P)	as Qualifier in a nominal group in a Participant	4	Two weeks would not be enough time [[to read a thick chapter book]] . (24. Nola)	value
in_ngQ_(C)	as Qualifier in a nominal group in a Circumstance	1	that children should not pick their teachers because of all these very important reasons [[that I have just given you]] . (23. Joe)	cause: reason
in_ngQ_(e)_(P)	as Qualifier in a nominal adjectival group in a Participant	2	because, it is harder [[to learn things]] (21. Alicia)	attribute
in_ngQ_(e)_(C)	as Qualifier in a nominal adjectival group in a Circumstance			
clH_(P)	as whole nominal group in a Participant	1	If you want [[homework to be easier]] (22. Allen)	phenom
clH_(C)	as whole nominal group in a Circumstance			
in_XX_(P)	in a group complex that is Participant(multi)			
in_XX_(C)	in a group complex that is Circumstance			
	Total	8		
Summary of function of embedding and as Participant or Circumstance				
as Qualifier in a nominal group in a Participant		6	(includes 3 from group complex)	
as whole nominal group in a Participant		1		
as Qualifier in a nominal group in a Circumstance		1		
as whole nominal group in a Circumstance				
Total		49		

A final perspective on the embedded clauses is provided by Table 5. 2-16, which reveals how the embedding is manifested (Column B; shorthand in Column A) for each of the 8 instances of embedded clauses in Year 4 Expositions. From Column C it may be seen all present as *Qualifier in a nominal group*, 4 (50%) in a straightforward noun group in a Participant (in_ngQ_(P)); 2 (25%) in an adjectival nominal group in a Participant (in_ngQ_(e)_(P)), 1 (12.5%) appearing as the whole nominal group in a Participant (clH_(P)); and 1 (12.5%) in a straightforward noun group as part of a Circumstance (in_ngQ_(C)). (Note, there are 4 other manifestations identified which do not occur in Year 4 Expositions.) Column D gives examples.

5.2.2.2 General description (Year 4 Expositions)

The Year 4 Expositions have been characterised according to average length in terms of sentences (6.75) and individual ranking clauses (20) and by a simple word average (138) which has been divided into lexical (63) and, by calculation, grammatical (75) items. Lexical density has been calculated (3.3). The ranking clauses have been further described by average usage of clause-simplexes (0.75) and clause-complexes (6). The explicit logical relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 30.2% to 69.8%.

Embedded clause usage has been tallied from two perspectives: (i) number of clauses containing embedding and (ii) number of embedded clauses. The average per text for (i) is (2): clauses containing embedded simplexes (2); those with clause complexes (0). The average per text for (ii) is (2): embedded simplexes (2) and embedded complexes (0). When employed, embedded clauses are used as qualifiers in a nominal group (87.5%) and as Whole nominal groups (12.5%). They are involved in (or as) Participants (87.5%) and (or as) Circumstances (12.5%).

In Table 5. 2-9, then, some general features of the Year 4 Expositions are gathered together and summarised. The rest of the tables in Section 5.2.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of analysis: a look at the Experiential elements of the texts (Section 5.2.3, looking first at the functional elements in a clause (Processes, 5.2.3.1; Participants, 5.2.3.2; Circumstances, 5.2.3.3), and then at the breakdown of the nominal group, 0).

Now we turn to look more closely at the functional constituents of the sentences/clauses.

5.2.3 Clause constituents – Transitivity (Year 4 Expositions)

5.2.3.1 Processes (Year 4 Expositions)

5.2.3.1.1 Functional types of Processes (Year 4 Expositions)

Table 5. 2-17 Process types (Year 4 Expositions)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	36	4	40	45.0	45.5
mental	18	2	20	22.5	22.7
mental: cognition	12	2	14	15.0	15.9
mental: desideration	2		2	2.5	2.3
mental: emotion	2		2	2.5	2.3
mental: perception	1		1	1.2	1.1
relational	19	1	20	23.8	22.7
R attrib: intens	6	1	7	7.5	8.0
R attrib: circ					
R attrib: poss	10		10	12.5	11.4
R id: intens	3		3	3.8	3.4
R id: circ					
R id: poss					
Subtotal(principal)	73	7	80	91.3	90.9
Subsidiary					
behavioural					
verbal	5	1	6	6.3	6.8
existential	2		2	2.5	2.3
Subtotal(subsidiary)	7	1	8	8.6	9.1
total	80	8	88	100	100
%	90.9	9.1	100		
Count of different Process types used	5	4	5		

We now turn to Transitivity and Process types, as set out in Table 5. 2-17. To form an overall impression first, it is useful to start at the second and third last rows. Here we see there are 80 ranking processes and 8 non-ranking processes, making a total of 88; in terms of proportions, ranking clauses make up 90.9% of the clauses and non-ranking only 9.1%.

In focusing on the broad categories of principal and subsidiary Processes, we see that principal Processes dominate, making up 91.3% in ranking clauses alone and 90.9% if all clauses are considered; subsidiary clauses constitute the remaining 9.1%.

Of the principal ranking Processes, material are most common (36), then relational (19), then mental (18). There are 7 subsidiary ranking Processes, shown in the bottom portion of Table 5. 2-17: five verbal, and two existential.

Within the relational Processes in ranking clauses, *attributive possessive processes* occur most often, 10 times; two other types are used, *attributive intensive* (6) and *identifying intensive* (3). The only relational Processes in the non-ranking clauses is *attributive intensive*. With respect to mental Processes, all types are used in ranking clauses: *cognition* (12), *desideration* (2), *emotion* (2) and *perception* (1). There are 2 mental Process in non-ranking clauses, and both are *cognition*.

The non-ranking clauses are few (Column C). Usage shows a similar order to the ranking clauses, with principal types far out-numbering subsidiary types: material (4), mental (2), relational (1), verbal (1), giving the overall pattern of usage as: material most used (40 or 45.5%), then relational (20 or 22.7%) and mental (20 or 22.7%), followed by verbal (6 or 6.8%) and existential (2 or 2.3%).

Across clause types, the frequency of use of types of processes is:

material	40	(45.5%)
relational	20	(22.7%)
mental	20	(22.7%)
verbal	6	(6.8%)
existential	2	(2.3%)
behavioural	0	(0%)
Total	88	(100%)

Year 4 use 5 types of Processes in the ranking clauses in their Expositions (omitting behavioural), and 4 in their embedded clauses (omitting the subsidiary types behavioural and existential).

5.2.3.1.2 Realisation – form of Processes (Year 4 Expositions)

Table 5. 2-18 Process form (Year 4 Expositions)

A	B	C	D	E	F
Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Complexity:					
Verbal group simplexes	65	7	72	81.3	81.8
Verbal group complexes	15	1	16	18.8	18.2
Total	80	8	88	100	100
Other features:					
phrasal verbs	2		2		
modal finites	37		37		
modal adjuncts	3		3		

The general form of the Processes is given in Table 5. 2-18. With respect to complexity of the verbal group in ranking clauses, whether only ranking clauses are considered (Column E) or all clauses (Column F), simplexes are used more frequently than complexes. In ranking clauses, they are used 81.5% of the time, while complexes are used 18.5 % of the time. The embedded clauses show a similar tendency, so that of the total usages of Processes, 80.7% are simplexes, and 19.3% are constructed as complexes.

Table 5. 2-19 Verb complexing summary (Year 4 Expositions)

Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis					
expansion elaboration					
expansion extension					
expansion enhancement					
projection not applicable					
Hypotaxis	13	1	14	86.7	87.5
expansion elaboration	1		1	6.7	6.3
expansion extension	7	1	8	46.7	50.0
expansion enhancement	1		1	6.7	6.3
projection	4		4	26.7	25.0
Multiple	2		2	13.3	12.5
Total	15	1	16	100	100

Table 5. 2-19 provides a summary of verbal group complexing. There are no instances of where the complexing is solely paratactic, but there are 2 cases

involving both parataxis and hypotaxis, both occurring in ranking clauses (see the next table for the actual instances). Of the 14 cases involving hypotaxis alone, most involve *expansion: extension* (8) (which includes the only 1 instances of complexing in embedded clauses), followed next in frequency by *projection* (4), with only one instance each of *expansion: elaboration* and *expansion: enhancement*. Table 5. 2-20 sets out the instances of complexing.

Table 5. 2-20 Instances of complexing in the verb (Year 4 Expositions)

Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis				
expansion elaboration				
expansion extension				
expansion enhancement				
projection				
Hypotaxis	14			
expansion elaboration	1	Also <<10.2//10.3>> he or she might get bulled	material	passive elab
expansion extension	8	and learn less [[than they could of]]. (21. Alicia)	mental: cognition[[]]	gen ext can[[]]
		you could learn times tables or spelling. (22. Allen)	mental: cognition	gen ext can=> modality
		we should make a personal organiser (22. Allen)	material	
		because then you could watch your favourite shows (22. Allen)	mental: perception	
		you could just do it in one day. (22. Allen)	material	
		so we can spend time with our family in three weeks. (23. Joe)	material	
		that children should not be able to pick their teacher for next year (24. Nola)	material	
		and practise drawing at home. (23. Joe)	material	gen ext learn
expansion enhancement	1	That causes the children not to listen to the teacher (21. Alicia)	mental: perception ⁷	caus mod agency hi
projection	4	Two weeks would not be enough time [[to read a thick chapter book]]. (23. Joe)	R id: intens	proj Posal:idea will
		because<<>>, there would be too many children in that particular class (24. Nola)	existential	
		weather[sic. whereas??] <<>>they would put different genders [agendas?] (24. Nola)	material	
		wich would make this problem. (24. Nola)	material	
Multiple				
	2	Secondly,<<>>then they would get to know differnt personalities (24. Nola)	mental: cognition	proj Posal:idea
and they wouldn't get to know different people. (24. Nola)		mental: cognition	will // caus ext reussive	
Total	16			

⁷ These process is labelled mental, with a 'causative' element accounted for in the meaning of the complexing (Column E). See Appendix B (**Error! Reference source not found.**).

5.2.3.2 Participants (Year 4 Expositions)

5.2.3.2.1 Functional types of Participants (Year 4 Expositions)

Participant roles are set out in Table 5. 2-21. The numbers in ranking clauses are set out in Column C, non-ranking clauses in Column D, and the total in Column F. Column C as a ratio with the total ranking clauses appears in Column F and as a ratio with the total clauses, ranking and non-ranking, appears in Column G.

Table 5. 2-21 Participant roles (Year 4 Expositions)

A	B	C	D	E	F	G
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor	24	1	25	19.2	18.4
	goal	25	2	27	20.0	19.9
	<i>oblique</i> recipient					
	client					
	scope	5	1	6	4.0	4.4
	initiator	1		1	0.8	0.7
	attribute: depictive					
	attribute: resultative		1	1		0.7
mental	senser	18	2	20	14.4	14.7
	phenom	6	1	7	4.8	5.1
	<i>oblique</i> inducer					
relational: attrib	carrier	17	1	18	13.6	13.2
	attribute	15		15	12.0	11.0
R attrib: intens	carrier	5	1	6	4.0	4.4
	attribute	5		5	4.0	3.7
R attrib: circ	carrier (cir:att)	1		1	0.8	0.7
	attribute (cir:att)	1		1	0.8	0.7
	carrier (cir:pr)					
	attribute (cir:pr)					
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	10		10	8.0	7.4
	attribute: possessed(poss:pr/carr:p'r)	9		9	7.2	6.6
	carrier: possessed(poss:pr/carr:p'd)	1		1	0.8	0.7
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary					
relational: ident	token	2		2	1.6	1.5
	value	3		3	2.4	2.2
R id: intens	token	2		2	1.6	1.5
	value	3		3	2.4	2.2
R id: circ	token(circ)					
	value(circ)					
R id: poss	token(poss)					
	value(poss)					
<i>oblique</i>	assigner					

behavioural <i>oblique</i>	behavior					
	behaviour					
	phenomenon(b)					
verbal <i>oblique</i>	sayer	5	1	6	4.0	4.4
	receiver	2	1	3	1.6	2.2
	verbiage					
	target					
existential	existent	2		2	1.6	1.5
	Total	125	11	136	100	100
	Count of different Participant roles used	13	9	14		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, recipient, attribute; initiator	54	5	59	43.2	43.4
mental	sensor, phenomenon; inducer	25	3	28	20.0	20.6
relational		37	1	38	29.6	27.9
attribution identification	carrier, attribute, beneficiary, attributor	32	1	33	25.6	24.3
	token, value; assigner	5		5	4.0	3.7
behavioural	behaviour; phenomenon(b)					
verbal	sayer, receiver; verbiage, target	7	2	9	5.6	6.6
existential	existent	2		2	1.6	1.5
		125	11	136	100	100

The main Participant roles are of course taken by those that are directly involved with the Process, in descending order of frequency of use.

	Processes %	Participants %
material	45.5	43.4
relational	22.7	27.9
mental	22.7	20.6
verbal	6.8	6.6
existential	2.3	1.5
behavioural	0	0
Total	100	100

There is no need to comment on these in detail since they are largely self-evident. We are, however, interested in the more obliquely involved Participants, and our observations will revolve around those.

Table 5. 2-22 collates information about the use of the indirectly involved Participants that are counted in Table 5. 2-21. Column A again sections the table according to Process type: material, mental, relational, behavioural, verbal, existential, and relational Processes here are again separated into relation-type

(attributive or identifying). Column B again lists Participant roles associated with the Process types in Column A, this time separating them into directly and obliquely involved types. Columns C and D record the usage. This allows a window into where different Year group texts are broadening the meaning in their clauses through an increased use of oblique Participant roles.

Table 5. 2-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 4 Expositions)

Different participant roles used in Year 4 expositions						
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	(i) direct	(ii) oblique	Total			
material	2	6	8	2	2	4
mental	2	1	3	2	1	3
relational	4	3	7	4		4
attributive	2	2	4	2		2
identifying	2	1	3	2		2
behavioural	1	2	3			
verbal	2	2	4	2		2
existential	1	0	1	1	0	1
Total	12	14	26	11	3	14

In Table 5. 2-22 Column C echoes exactly B(i), showing that those Participant roles that are directly related to the process types are all used in the Year 4 Expositions. This accounts for 11 of the Participant roles used. The remaining 3 are used as per Column D, which shows that the material clauses employ 2 Participants that are obliquely involved, and there is one instance in a mental clause.

5.2.3.2.2 Realisation – form of Participants (Year 4 Expositions)

Table 5. 2-23 Summary of forms taken by Participants (Year 4 Expositions)

Participants in ranking clauses					Participants in embedded clauses					Both
Nominal group			Prepositional phrase	Adverbial group	Nominal group			Prepositional phrase	Adverbial group	Total
Noun group	Adjectival group	Clause			Noun group	Adjectival group	Clause			
117	5	2	1		10	1				136
124					10					
125					11					

For information on the forms taken by the Participants listed in Table 5. 2-21, see Table 5. 2-23. By far the majority appear in noun groups, whether in ranking clauses (117) or non-ranking clauses (9). In fact, in all the embedded clauses, the Participants

are all noun groups. Accounting for the rest of the Participants – those in ranking clauses – we find that the next most common form, adjectival groups, is used only 5 times. The only other forms that appear in these Year 4 Expositions are two nominal groups where a clause is the whole of the group, and one prepositional phrase.

Table 5. 2-24 Detail of forms taken by Participants (Year 4 Expositions)

Table 3.2.2.4 Detail of forms taken by Participants (Fear + Expositions)															
A	B	C	D	E	F	G	H	I	J	K	L				
	Participants in ranking clauses					Participants in embedded clauses					Both				
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total				
	noun group	adj. group	clause			noun group	adj. group	clause							
Nominal groups															
One group	117	5	2	1		9	1				135				
Single function (Head only)	52	3	2			6	1				64				
Pre-mod + Head (no post-mod)	55			1		3					59				
Post-mod (may be pre-mod)	10	2									12				
Two+ groups						1						1			
Adverbial groups															
One group															
Head only															
Pre-mod + Head (no Post-mod)															
Post-mod (may be pre-mod)															
Two+ groups															
Summary of forms taken by Participants															
Noun groups	117					10					127				
Adj. nominal groups						5							1		6
Clauses											2				2
Prepositional phrases												1			1
Adverbial groups															
Total all	125					11					136				

Table 5. 2-23 is expanded into Table 5. 2-24. Looking at the Participants consisting of or containing one nominal group, a large portion contains a Head only (64 of 135 or 46.4%). Next is usage of the nominal groups that contain a pre-modifying function (59 of 135 or 43.7%). Nominal groups with a post-modifying function occur 12 times (or 8.8%). Usage of more than one nominal group in a nominal group complex as Participant occurs only once ranking clause (representing 0.7% of the total participants). There are no adverbial groups used as a Participant.

Examples of the forms discussed through Table 5. 2-24 are presented in Table 5. 2-25. Included are representative examples of each form.

Table 5. 2-25 Examples of forms taken by Participants (Year 4 Expositions)

Function feature	Form	Example	Participant role	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	noun group	times tables or spelling (Allen)	goal	word complex
	noun group	twenty eight <i>in</i> the other class might have twenty eight (Alicia)	attribute: possessed	numeration only
	noun group	Some <i>in</i> Some my not (Alicia)	senser	deictic only
	adj group	good <i>in</i> Homework is good (Allen)	attribute	
	clause	[[left out]] (Alicia)	attribute	
	clause	[[homework to be easier]] (Allen)	phenom	
with Pre-mod function	noun group	other childrens teachers (Alicia)	carrier	possessive deictic
	noun group	soccer or dancing lessons (Allen)	attribute: possessed	para exten in Epithet
	noun group	three weeks Easter holiday (Joe)	attribute: possessed	possessive deictic
	noun group	that same teacher (Nola)	goal	
	noun group	a lot of children (Alicia)	actor	Focus – selecting
	noun group	all the catholic schools in Australia (Joe)	actor	Focus – selecting
With Post- mod function	noun group	their teacher for next year (Alicia)	goal	Qualifier – phrase
	noun group	their teachers for next year (Alicia)	goal	Qualifier – phrase
	noun group	their teachers for next year (Alicia) yes, used 3 times.	goal	Qualifier – phrase
	noun group	all the catholic schools in Australia (Joe)	actor	Qualifier – phrase
	noun group	an extra week of holiday (Joe)	goal	Qualifier – phrase
	noun group	their teacher for next year (Nola)	goal	Qualifier – phrase
	adj group	harder [[to learn things]] (Alicia)	attribute	Qualifier – clause
	noun group	the only one [[who chose that teacher]] (Alicia)	value	Qualifier – clause
	adj group	less [[than they could of]]. (Alicia)	goal	Qualifier – clause
	adj group	not enough [[to have a rest and a break from should]]. (Joe)	value	Qualifier – clause
	noun group	enough time [[to read a thick chapter book]]. (Joe)	value	Qualifier – clause
	noun group	a popular teacher [[that most of the children choose]] (Nola)	existent	Qualifier – clause
Two+ groups				
with Pre-mod with Pre-mod	noun group noun group	a rest and a break from school (Joe)	scope	para exten
Adverbial groups				
none				

5.2.3.3 Circumstances (Year 4 Expositions)

5.2.3.3.1 Functional types of Circumstances (Year 4 Expositions)

Table 5. 2-26 Types of Circumstances (Year 4 Expositions)

circumstance type	ranking	[[]]	Total	% ranking	% Total
accomp: additive					
accomp: comitative	1		1	5	5
angle: source					
angle: viewpoint					
cause: behalf					
cause: purpose					
cause: reason	1		1	5	5
contingency: concession					
contingency: condition					
contingency: default					
extent: distance					
extent: duration					
extent: frequency					
location: place	5		5	25	25
location: time	5		5	25	25
manner: comparison					
manner: degree	5		5	25	25
manner: means					
manner: quality	3		3	15	15
matter					
role: guise					
role: product					
Total	20		20	100	100
%	100		100		
Count of different types of Circumstances used	6		6		

Types of Circumstances are shown in Table 5. 2-26, separated into those appearing in ranking and embedded clauses – unnecessarily in this case, as there are no circumstances in embedded clauses. In terms of frequency of occurrence, the front runners are location:place, location:time and manner:degree, each with 5 instances (25% = 75% altogether), followed by manner:quality with 3 instances (15%). The remaining two are cause:reason, and accompaniment:comitative (5% each). Of the 22 Circumstance types listed, only 6 are used by this text-group.

5.2.3.3.2 Realisation – form of Circumstances (Year 4 Expositions)

Table 5. 2-27 Summary of forms taken by Circumstances (Year 4 Expositions)

Circumstances in ranking clauses			Circumstances in embedded clauses			Both
prepositional phrase	noun group	adverbial group	prepositional phrase	noun group	adverbial group	Total
12		8				20
20						

Table 5. 2-27 presents a summary of the forms that the Circumstances in Year 4 Expositions take, showing how the Circumstances are realised in the ranking clauses, and that there are no Circumstances in embedded clauses.

Table 5. 2-28 Detail of forms taken by Circumstances (Year 4 Expositions)

Table 3: 2-26 Detail of forms taken by Circumstances (Fear + Expositions)							
A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	12						12
Single function (Head only)	3						3
Pre-mod + Head (no post-mod)	8						8
Post-mod (may be pre-mod)	1						1
Two+ groups							
Adverbial groups							
One group			8				8
Single function (Head only)			7				7
Pre-mod + Head (no post-mod)			1				1
Post-mod (may be pre-mod)							
Two+ groups							
Summary of forms taken by Circumstances							
Prepositional phrases	12						12
Noun groups							
Adverbial groups			8				8
Total all	20						20

From the simple group detail (Table 5. 2-28), we see that Prepositional phrases containing one nominal group account for 12 occurrences. Within the nominal group of the prepositional phrases, 8 are with pre-modifying function, 3 are single function, and only 1 has a post-modifying function. The remaining 8 Circumstances are

realised by adverbial groups. See Table 5. 2-29 for examples of forms taken in Year 4 Expositions.

Table 5. 2-29 Examples of forms taken by Circumstances (Year 4 Expositions)

circumstance feature	form	example	type	note
Prepositional phrases / nominal groups				
One group				
Head only (including clause as Head)	prep phrase	over Easter (23. Joe)	location: time	
	prep phrase	at home (23. Joe)	location: place	
with Pre-mod function	prep phrase	with our family <i>in</i> we can spend time with our family (23. Joe)	accomp: comitative	
	prep phrase	in one day (22. Allen)	location: time	
	prep phrase	in that particular class (24. Nola)	location: place	
	prep phrase	because of all these very important reasons, [[that I have just given you]]. (24. Nola)	cause: reason	Focus – selecting
With Post- mod function	prep phrase	because of all these very important reasons [[that I have just given you]] . (24. Nola)	cause: reason	Qualifier – clause
Two+ groups				
Adverbial groups				
Head only	adv group	strongly <i>in</i> I strongly recommend (24.Nola)	manner: degree	
Head only	adv group	equally <i>in</i> divide the children equally (24.Nola)	manner: quality	
Pre-mod	adv group	very loud <i>in</i> and yells very loud (21. Alicia)	manner: quality	

5.2.3.4 The Nominal Group – a special case (Year 4 Expositions)

Here are the nominal groups from the Participants and Circumstance, from both ranking and embedded clauses, from the Year 4 Expositions.

Table 5. 2-30 Nominal groups (Year 4 Expositions)

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	58	7	3	68	36.0	42.2
Head=Thing	52	6		58	32.3	36.0
Head≠Thing, elliptical	3			3	1.9	1.9
Head≠Thing, Epithet	3	1	3	7	1.9	4.3
Pre-mod + Head only	64	3	13	80	39.8	49.7
Head=Thing	64	2	11	77	39.8	47.8
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus		1	2	3		1.9
Post-modification	13			13	8.1	8.1
with qualifying phrase	6			6	3.7	3.7
with qualifying clause	7			7	4.3	4.3
with multiple qualifiers						
Total	135	10	16	161	83.9	100

The Year 4 Expositions data display a majority use of pre-modifying function in the construction of the nominal groups – a total of 80 out of 161, or 49.7%. Nominal groups consisting of Head only fall into second most frequently used with 68 of the 161, or 42.2%. The remaining 8.1% consists of nominal groups with a post-modifying function (13 of 161).

Now we will look briefly at the three individual horizontal sections of Table 5. 2-30. For comparison's sake, we will start at the top rather than with the most frequently used, as has been customary so far.

Firstly, of the single function nominal groups, by far the most are conventional noun groups, where the Head conflates with Thing (58 from 68, or 85.3%). A few are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet or Classifier, both lexical entities (7 of 68, or 10.3%) and only 3 have the

Head conflated with an element other than an Epithet or Classifier, a non-lexical entity (4.4%).

Secondly, of the nominal groups consisting of pre-modifier + Head, again by far the most have Head conflated with Thing (77 of 80, or 96.3%). The only other usage involves the use of focus (an extended numerative) – (3 of 80, or 3.7%). There are no instances of pre-modification in an adjectival nominal group.

Thirdly, the 8.1% of clauses that contain a post-modifying element are roughly equally divided between those that contain a qualifying clause (7 of 13, or 54%) and those that contain a qualifying phrase (6 of 13, or 46%). There are no instances of a nominal group containing multiple qualifiers. Examples of nominal groups appear in Table 5. 2-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the first position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 5. 2-31 Examples of nominal groups (Year 4 Expositions)

Total	% Total	Feature	Example		Notes/type
68	42.2	single function – Head only			
58	36.0	Head=Thing	pronouns (62.1%); common nouns e.g. homework, (27.6%); proper nouns (10.3%) (Some multi-words like <i>Four Blue</i> & word complexes e.g. <i>times tables</i> .) (Personal pronouns 60.3%.)		
3	1.9	Head≠Thing, elliptical	twenty eight <i>in</i> the other class might have twenty eight (Alicia)		numeration only
7	4.3	Head≠Thing, Epithet	easier <i>in</i> if you want homework to be easier (Allen)		
80	49.7	Pre-mod + Head only			
77	47.8	Head=Thing	SEE TABLE BELOW		
		Head≠Thing, elliptical			
		Head≠Thing, Epithet			
3	1.9	Head≠Thing, focus	all these very important reasons [[that I have just given you]] (Nola)		
13	8.1	Post-modification			
6	3.7	with qualifier – phrase	<i>with Pre-mod (Head=Thing)</i>	their teacher for next year (Alicia)	
			<i>with Pre-mod (Head=Thing)</i>	all the catholic schools in Australia (Joe)	
			<i>with Pre-mod (Head=Thing)</i>	an extra week of holiday (Joe)	
7	4.3	with qualifier – clause	<i>single function (Head≠Thing, Epithet)</i>	harder [[to learn things]] (Alicia)	non-finite clause as qualifier
			<i>single function (Head≠Thing, Epithet)</i>	less [[than they could of]]. (Alicia)	finite clause as qualifier
			<i>single function (Head≠Thing, Epithet)</i>	not enough [[to have a rest and a break from should]].(Joe)	non-finite clause as qualifier
			<i>with Pre-mod (Head=Thing)</i>	the only one [[who chose that teacher]] (Alicia)	relative clause as qualifier
			<i>with Pre-mod (Head=Thing)</i>	enough time [[to read a thick chapter book]].(Joe)	non-finite clause as qualifier
			<i>with Pre-mod (Head=Thing)</i>	a popular teacher [[that most of the children choose]] (Nola)	relative clause as qualifier
			<i>with Pre-mod (Head=Thing)</i>	all these very important reasons, [[that I have just given you]].(Nola)	relative clause as qualifier
		with multiple qualifiers			
159	100	Total			

Concerning the question of how the Head is modified in Year 4 Expositions, it may be concluded that nominal groups with pre-modifying functions are now marginally more common than simple nominal groups with Head (80:68) and almost 6 times more common than those with post-modifying elements (80:13): broadly speaking, Year 4 enjoys modifying the Head, favouring pre-modification, but increasingly using post-modification.

Year	With single function (Head)		With pre-modifying function only		With post-modifying function	
	Fraction	Percentage	Fraction	Percentage	Fraction	Percentage
3	87/150	58	57/150	38	6/150	4
4	68/159	42.2	80/159	49.7	13/159	8.1

Again, now we will focus on the highlighted row from Table 5. 2-30, shown again for convenience here:

Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	58	7	3	68	36.0	42.2
Head=Thing	52	6		58	32.3	36.0
Head≠Thing, elliptical	3			3	1.9	1.9
Head≠Thing, Epithet	3	1	3	7	1.9	4.3
Pre-mod + Head only	64	3	13	80	39.8	49.7
Head=Thing	64	2	11	77	39.8	47.8
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus		1	2	3		1.9
Post-modification	13			13	8.1	8.1
with qualifying phrase	6			6	3.7	3.7
with qualifying clause	7			7	4.3	4.3
with multiple qualifiers						
Total	135	10	16	161	83.9	100

Table 5. 2-32 displays the range of configurations of pre-modifying elements Deictic, Numerative, Epithet, Classifier and Thing used in nominal groups where the Head conflates with the Thing.

Table 5. 2-32 Pre-modification in the nominal group (Year 4 Expositions)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing				
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing	10	13.0	their other friends (Alicia)	a different teacher (Nola)
DeicticNumerativeEpithetThing				
DeicticNumerativeThing				
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing	1	1.3	a thick chapter book (Joe)	
DeicticEpithetEpithetEpithetThing				
DeicticEpithetEpithetThing				
DeicticEpithetThing	3	3.9	your favourite shows (Allen)	a popular teacher that most of the children chose (Nola)
DeicticClassifierClassifierThing				
DeicticClassifierThing	3	3.9	three weeks Easter holidays (Joe)	the Easter season (Joe)
DeicticThing	35	45.5	other childrens teachers (Alicia)	this problem (Nola)
Deictic2Thing	4	5.2	different genders (Nola)	different personalities (Nola)
Deictic2ClassifierThing				
NumerativeClassifierThing				
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing				
NumerativeThing	13	16.9	thirteen children (Alicia)	more things (Allen)
EpithetClassifierThing				
EpithetEpithetThing				
EpithetThing	5	6.5	fantastic books (Joe)	
ClassifierClassifierThing				
ClassifierThing	3	3.9	soccer or dancing lessons (Allen) para exten in Classifier	middle school (Nola)
25 Total	77	100		
Count of different configurations used	9			

Of the 25 available patterns, 9 were used in the Year 4 Expositions. The most used configuration is DeicticThing (with 45.5%), followed by Numerative Thing (16.9%) and DeicticDeictic2Thing (13%). Usage drops by half to EpithetThing (6.5%), which is followed by Deictic2Thing (5.2%). The remaining 12.9% of forms are: 3 instances each of DeicticEpithetThing, DeicticClassifierThing and ClassifierThing, and only one of DeicticEpithetClassifierThing.

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 9 of the 77 (11.6%) involve the use of Epithets (using 3 configurations). Seven (7) nominal groups use a Classifier, 7 of the 77 (9.1%) (using Classifier in 3 different configurations).

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres. In the case of the Year 4 Expositions, 25 of 77 (or 32.5%) noun groups do not use a deictic.

There are any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

We now turn to look at the comparable features in Year 5 Expositions.

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5.3 Findings: Year 5 Expositions

5.3.1 The Year 5 Expositions

5.3.1.1 Text 25. Should the Community Work Towards Saving Rainforests? by Dane

Table 5. 3-1 Text 25. Should the community work towards saving rainforests? (Dane, 5/E)

25. Should the community work towards saving rainforests? (Dane, 5/E)	Stages
The community shouldn't save their local rainforest for quite a few reasons.	Statement of position
<p>If we do destroy one or two rainforests but evacuate the animals to another rainforest. You can change the animals from one rainforest to another by boat. It won't hurt the animals and it will give the community more money and wood for houses.</p> <p>It might also not be a good idea to take the animals out of their environment for a while because they might suffer from it. But they also could benefit from it as well. With all the money that the community gets they will build better facilities[sic].</p> <p>I believe that if we can somehow transport the animals from one forest to another without harming them, we could gain a lot[sic] of money and facilities[sic].</p> <p>Rainforests produce oxygen. If we knock down rainforests we will lose oxygen. We will also lose lots of animals and plants. Our children's children will not be able to experience our lovely rainforests.</p> <p>Some plants and animals contain vital medicines. The government[sic] should provide money to keep rainforest. Some animals may become extinct.</p>	Arguments

Table 5. 3-2 Text 25. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
15	9	6	23	2	0	73	181	3.2	7.9

5.3.1.2 Text 26. Should We Build a Nuclear Power Plant in Australia? by Maddy

Table 5. 3-3 Text 26. Should We Build a Nuclear Power Plant in Australia? (Maddy, 5/E)

26. Should We Build a Nuclear Power Plant in Australia? (Maddy, 5/E)	Stages
I strongly disagree that Australia should change to Nuclear Energy.	Statement of position
<p>My first reason is that if there was to be an explosion it would be fatal to many people. The toxic gases would last for hundreds of thousands of years. It would make the place unable to be visited or lived in for a very long time.</p> <p>Secondly, Nuclear Power has a lot of waste that would have to be buried underground. A lot of our water comes from underground so the waste may contaminate it.</p> <p>Thirdly, Australia would be a target for terrorism because one bomb could kill millions. Also Australia may lose tourists because they are afraid of a Nuclear explosion.</p>	Arguments
In conclusion, I strongly disagree Australia should change over to Nuclear Power because of the extremely high risk of an explosion which would destroy Australia and it's wildlife.	Reinforcement of statement of position

Table 5. 3-4 Text 26. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
9	4	5	15	2	1	61	141	4.1	9.4

5.3.1.3 Text 27. Should We Build a Nuclear Power Plant in Australia? by Nathan

Table 5. 3-5 Text 27. Should We Build a Nuclear Power Plant in Australia? (Nathan, 5/E)

27. Should We Build a Nuclear Power Plant in Australia? (Nathan, 5/E)	Stages
I disagree with all my heart and soul that Australia should build a nuclear power plant.	Statement of position
<p>Firstly, nuclear power is a terrorism attack in waiting. There are many possibilities that a bomb could be dropped at any time. If Australia builds a plant, I think there could be another Shanoble[sic] in Australia in many years to come.</p> <p>My other reason is that the waste is hard to bury. They usually bury the waste a few kilometers underground but in Australia some of our water comes from underground reservoirs which may harm our warter[sic] and wildlife.</p> <p>Finally, if there is a meltdown, the locals have a 10% chance of living. Also the radiation can travel a long way and can stay for a long time and can cause cancers that can be fatal.</p>	Arguments
So you see, we, the people of Australia should all disagree on the statement of Nuclear Power in Australia for the reasons listed.	Reinforcement of statement of position

Table 5. 3-6 Text 27. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
9	3	6	18	6	0	74	155	4.1	8.6

5.3.1.4 Text 28. Why Smoking Should Be Banned, by Zizi

Table 5. 3-7 Text 28. Why Smoking Should Be Banned (Zizi, 5/E)

28. Why Smoking Should Be Banned (Zizi, 5/E)	Stages
Smoking should be banned because it has existed for many, many years and people now know that it is extremely bad for them.	Statement of position
<p>Many people do not know how bad it is for them. Smoking causes many deaths and diseased bodies. One disease is Gangrene. When people begin to smoke, it not only damages the air around them but their bodies aswell[sic]! When the smoker begins it is not so bad, but because you get addicted after a couple of cigarettes, your heart begins to weaken and therefor[sic] making it harder to pump the blood around your body. Your veins block up and then making it harder for the feet to get blood, therefore causing Gangrene. Some other illnesses are lung, mouth and throat cancer, amputation, heart attack and shakes.</p> <p>Passive smoking is also a big issue. When the smoker has a cigarette near another person that is called passive smoking. The person who is smoking can give the other person diseases like Gangrene, cancers and shakes. This is a big issue.</p> <p>Odour is also a problem. No matter how much you wash your clothes and hair you smell like ciggarettes[sic]. Your house and car normally smell. Your breath smells horrible and your hair and eyes loose their shine. Your eyes may also go red.</p>	Arguments
<p>There are many other consequences from smoking. One[sic] you begin to smoke, you get addicted to it and it becomes a normal routine, in you life. Many older and uneducated people smoke because they do not know any different.</p> <p>THE END.</p>	Reinforcement of statement of position

Table 5. 3-8 Text 28. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
20	10	10	38	3	0	118	254	3.1	6.7

5.3.2 Sentence-level information (Year 5 Expositions)

Table 5. 3-9 Overview (Year 5 Expositions)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
25	15	9	6	23	2	0	73	181	3.2	7.9
26	9	4	5	15	2	1	61	141	4.1	9.4
27	9	3	6	18	6	0	74	155	4.1	8.6
28	20	10	10	38	3	0	118	254	3.1	6.7
Part B										
Total	53	26	27	94	13	1	326	731		
Av	13.25	6.5	6.75	23.5	3.25	0.25	81.5	182.75	3.6	8.1

Texts 25-28 are the Year 5 Expositions. Sentence level characteristics of each text are set out in Table 5. 3-9, summarised in the final 2 rows. From this lower section of the table, it can be seen that the Year 5 Exposition data is contained in 53 sentences, comprised of 27 clause complexes (50.9%) and 26 clause simplexes (49.1%). Altogether there are 94 ranking clauses. Of the 94 clauses, 14 contain embedded clauses in some form (Columns F + G) (14.9%) while 80 (85.1%) do not (Columns E – (F + G)). Of the clauses that contain embedding, 13 contain clause-simplexes and 1 contains a clause-complex. The ratio of total words (731) to lexical items (326) is 2.3:1 and the average lexical density across the 4 texts (clauses÷lexical items) is 3.6. The mean length of each clause is 8.1 words.

Usage of simplexes and complexes varies among the texts – one uses more simplexes than complexes, and one uses an equal number of each. The characterisation of this group would be that the overall usage of clause complexes and the usage of clause simplexes is about even.

5.3.2.1 Sentence constituents (Year 5 Expositions)

Table 5. 3-10 Sentences and clauses (Year 5 Expositions)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no relations (simplex)	With paratactic relations	With hypotactic relations	With relations of both types	Total nexuses
1	26	49.1	26				
2	17	32.1		4	13		17
3	7	13.2		1	2	4	14
4	2	3.8			1	1	6
5	1	1.9				1	4
6							
7							
8							
Total	53	100	26	5	16	6	41
%			49.1	9.4	30.2	11.3	

In Table 5. 3-9, we see that the 53 sentences in the Year 5 Expositions are made up of 26 clause simplexes and 27 clause complexes. In Table 5. 3-10 these bare figures are fleshed out. As may be seen from Columns A to D of Table 5. 3-10, the most common number of clauses per sentence in the Year 5 Expositions is one: there are 26 of these, comprising 49.1% of all sentences (Column B). The next most common length is 2 clauses, (32.1%), followed by 3 clauses (13.2%), then 4 clauses (3.8%) and 5 clauses (1.9%). In fact, 1- 2-, 3-, 4- and 5- clause sentences are successively less common (Columns B, C).

50.9% of sentences are clause complexes. In these clause complexes, sentences containing only hypotactic relations (17 sentences) are much more common than those containing relations of both types (6 sentences), and than clause complexes containing only paratactic relations less common (4 sentences). These four are 2 or 3 clauses in length, while the longer sentences contain both types of relations. In this data set, nexuses total 41 (Column H).

Table 5. 3-11 Dependency relations between clauses (Year 5 Expositions)

Nexus type	Count	% of relation type
Paratactic	13	31.7
Hypotactic	28	68.3
Total	41	

Taking into account both the sentences with a single type of relation and those with relations of both types, the total number of paratactic nexuses and the total number of hypotactic nexuses may be determined. The results are tabulated in Table 5. 3-11. It turns out hypotactic nexuses constitute 68.3% and paratactic nexuses 31.7% of the whole.

Table 5. 3-12 shows usage of the logico-semantic relations, expansion and projection.

Table 5. 3-12 Taxis/logico-semantic relations in clause complexes (Year 5 Expositions)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification				
		description		3	2	1
	extension	addition: additive	9			
		addition: adversative	3			
		variation				
		alternation				
	enhancement	temporal		4	4	
		spatial				
		manner				
		cause	1	7	6	1
		conditional		6	5	1
projection	locution	(speech)				
	idea	(thought)		8	8	
Total			13	28	25	3

Column D of Table 5. 3-12 shows the 13 instances of parataxis. The complexes are *expanded* through *extension: addition* (9 additive and 3 adversative) and through one sub-type of *enhancement* – *enhancement: cause* (1). There are no instances of *projection*.

Column E shows the 28 instances of hypotaxis. All types of *expansion* are utilised – *elaboration: description* (3), *extension: addition* (4), and in *enhancement*, three sub-types – *:temporal* (4), *:cause* (7) and *:conditional* (6). There are 8 instances of

projection: idea (reported thought). These 28 hypotactic clause complexes employ dependent clauses of both finite (25) and non-finite forms (3).

Turning now from the make-up of sentences in terms of ranking clauses, the following group of tables transition focus to the occurrences and placements of embedded clauses.

Table 5. 3-13 Dispersion and count of ranking clauses (Year 5 Expositions)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	26	26	7	19
2	17	34	2	32
3	7	21	3	18
4	2	8	1	7
5	1	5	1	4
6				
7				
8				
Total	53	94	14	80
%			16.0	84.0
Average per text	13.25	23.5	3.5	20

Table 5. 3-13 shows that, in sentences of any length (Columns A, B and C), the number of clauses that do not contain embedding (Column E) substantially exceed the number that do (Column D). Over the text-group as a whole, 80 clauses, or 84%, do not contain embedding; 14 (or 16%) do.

It is that 14 (or 16%) of ranking clauses that contain embedding that we are now interested in. We extend the analysis of Table 5. 3-13, explicating in the main, Column D of that table. Table 5. 3-14 tallies (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the functional constituent element of its host clause (Columns D and E).

Table 5. 3-14 Embedding in ranking clauses (Year 5 Expositions)

A	B	C	D	E	F
Ranking clause contains/ Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in Circumstance	Examples
embedded clause/s as Qualifier in a nominal group	11	[[]Q	9	2	there could be another Shanoble in Australia in many years [[to come]]. (27. Nathan) (Circ) With all the money [[that the community gets]] they will build better fasillaties. (25) (Circ)
		[[[]Q]Q			
		multiQ			
		[[//]Q			
		[[// //]Q			
		[[// // //]Q			
embedded clause/s as a whole nominal group	1	[[]clH	1		It would make the place [[unable to be visited or lived in for a very long time]]. (26. Maddy)
	1	[[[]Q]clH	1		My other reason is [[that the waste is hard [[to bury]]]]. (27. Nathan)
		multiclH			
		[[//]clH			
		[[// //]clH			
		[[// // //]clH			
		[[// []Q]clH			
	1	[[<<>>]clH	1		My first reason is [[that <<if there was to be an explosion>> it would be fatal to many people]]. (26. Maddy)
both		mixed			
	14	Totals	12	2	
Summary					
Qualifier in a nominal group	11	78.6%	9	2	
Whole nominal group	3	21.4%	3		
Total	14	100%	12	2	
			92.9%	7.1%	

In the Year 5 Expositions, 14 of 94 clauses contain embedded clauses. Table 5. 3-14 shows 11 of the 14 instances being of the embedded clause acting as a Qualifier in a nominal group, denoted here with a final Q. Most instances (9) occur as a Participant. There are 3 instances where the whole nominal group is realised by an entire embedded clause, one of which itself contains an embedded clause as qualifier in a

noun group (e.g. *My other reason is [[that the waste is hard [[to bury]]]]*), and one which is a clause complex involving an interrupting clause (*My first reason is [[that <<if there was to be an explosion>> it would be fatal to many people]]*). These three usages are all Participants. As may be seen from Columns D and E, embedding in/as Circumstances is again rare, occurring 2 times, whereas embedding in/as Participants is much more common, occurring 12 times. Table 5. 3-15 essentially provides a different way of looking at the data in Table 5. 3-14, deconstructing the complexity of the embedding, and providing examples of the clause forms.

Table 5. 3-15 Embedded clauses (Year 5 Expositions)

A	B	C	D
Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
13	simplexes		14
12	[[]]	It might also not be a good idea [[to take the animals out of their environment for a while]] (25. Dane)	12
	[[]]c (multiple in one clause)		
	[[]]el (multiple in one element/group)		
1	[[e]] (with an embedded clause)	My other reason is [[that the waste is hard [[to bury]]]]. (27. Nathan)	1
	e[[]]Q (form of [[e]])	– hard [[to bury]] – (27. Nathan)	1
1	complexes		2
	[[// //]]		
	[[// // //]]		
	[[// // [[]]]]		
1	[[<<>>]]	My first reason is [[that << if there was to be an explosion >> it would be fatal to many people]]. (26. Maddy)	1
	incl	– <<if there was to be an explosion>> – (26. Maddy)	1
14	Total		16
Summary of complexity of embedded clauses			
simplexes	13	92.9%	Average per text: 3.25
complexes	1	7.1%	Average per text: 0.25
Totals	14	100%	Average per text: 3.5

Now, to consider the embedded clauses in terms of complexity (Table 5. 3-15. Most (12) of the simplexes are straightforward and all occur in separate clauses. One, however, is buried within another clause simplex: (*My other reason is [[that the waste is hard [[to bury]]]]* (27. Nathan)). The complex is composed of 2 clauses, one being interrupted by the other (*My first reason is [[that << if there was to be an explosion >> it would be fatal to many people]]* 26. Maddy)). These two options account for the total 14 clause embeddings (Column A), involving a total of 16 individual clauses embedded (Column D). Examples are given in Column C.

Table 5. 3-16 Detail of use of embedded clauses (Year 5 Expositions)

A	B	C	D	E
Placement shorthand	How embedding manifests	Simplex/ individual clause count	Examples	
in_ngQ_(P)	as Qualifier in a nominal group in a Participant	8	It might also not be a good idea [[to take the animals out of their environment for a while]] (25. Dane)	attribute
in_ngQ_(C)	as Qualifier in a nominal group in a Circumstance	2	we, the people of Australia should all disagree on the statement of Nuclear Power in Australia for the reasons [[listed]] . (27. Nathan)	matter
in_ngQ_(e)_(P)	as Qualifier in a nominal adjectival group in a Participant	2	and therefor making it harder [[to pump the blood around your body]] . (28. Zizi)	attribute: resultative
in_ngQ_(e)_(C)	as Qualifier in a nominal adjectival group in a Circumstance			
clH_(P)	as whole nominal group in a Participant	4	It would make the place [[unable to be visited or lived in for a very long time]] . (26. Maddy)	attribute: resultative
clH_(C)	as whole nominal group in a Circumstance			
in_XX_(P)	in a group complex that is Participant(multi)			
in_XX_(C)	in a group complex that is Circumstance			
Total		16		
Summary of function of embedding and as Participant or Circumstance				
as Qualifier in a nominal group in a Participant		10		
as whole nominal group in a Participant		4		
as Qualifier in a nominal group in a Circumstance		2		
as whole nominal group in a Circumstance				
Total		16		

A final perspective on the embedded clauses is provided by Table 5. 3-16, which reveals how the embedding is manifested (Column B; shorthand in Column A) for each of the 16 instances of embedded clauses in Year 5 Expositions. From Column C it may be seen 8 of the 16 (50%) present as *Qualifier in a nominal group in a participant*, in a straightforward noun group (in_ngQ_(P)); 4 or 25% are the *whole nominal group in a participant* (clH_(P)); 2 (13%) appear in as *Qualifier in a nominal group in a Circumstance* (in_ngQ_(C)). The remaining two (13%) appear as *Qualifier in a nominal adjectival group in a Participant* (in_ngQ_(e)_(P)). (Note, there are 4 other manifestations identified which do not occur in Year 5 Expositions.) Column D gives examples.

5.3.2.2 General description (Year 5 Expositions)

The Year 5 Expositions have been characterised according to average length in terms of sentences (13.25) and individual ranking clauses (23.5) and by a simple word average (183) which has been divided into lexical (82) and, by calculation, grammatical (101) items. Lexical density has been calculated (3.6). The ranking clauses have been further described by average usage of clause-simplexes (6.5) and clause-complexes (6.75). The explicit logical relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 29.3% to 70.7%.

Embedded clause usage has been tallied from two perspectives: (i) number of clauses containing embedding and (ii) number of embedded clauses. The average per text for (i) is (3.5): clauses containing embedded simplexes (3.25); those with clause complexes (0.25). The average per text for (ii) is (3.5): embedded simplexes (3.25) and embedded complexes (0.25). When employed, embedded clauses are used as qualifiers in a nominal group (78.6%) and as Whole nominal groups (21.4%). They are involved in (or as) Participants (92.9%) and (or as) Circumstances (7.1%).

In summary, in Table 5. 3-9, some general features of the Year 5 Expositions are gathered together and summarised. The rest of the tables in Section 5.3.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example,

and most explicitly, by presenting embedded clauses, we foreshadow the next area of analysis: a look at the Experiential elements of the texts (Section 5.3.3, looking first at the functional elements in a clause (Processes, 5.3.3.1; Participants, 5.3.3.2; Circumstances, 5.3.3.3), and then at the breakdown of the nominal group, 5.3.3.4). Now we turn to look more closely at the functional constituents of the sentences/clauses.

5.3.3 Clause constituents – Transitivity (Year 5 Expositions)

5.3.3.1 Processes (Year 5 Expositions)

5.3.3.1.1 Functional types of Processes (Year 5 Expositions)

We now turn to Transitivity and Process types, as set out in Table 5. 3-17.

Table 5. 3-17 Process types (Year 5 Expositions)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	51	12	63	54.8	57.8
mental	11		11	11.8	10.1
mental: cognition	9		9	9.7	8.3
mental: desideration	1		1	1.1	0.9
mental: emotion	1		1	1.1	0.9
mental: perception					
relational	27	3	30	29.0	27.5
R attrib: intens	18	3	21	19.4	19.3
R attrib: circ	1		1	1.1	0.9
R attrib: poss	2		2	2.2	1.8
R id: intens	5		5	5.4	4.6
R id: circ	1		1	1.1	0.9
R id: poss					
Subtotal(principal)	89	15	104	95.7	95.4
Subsidiary					
behavioural					
verbal					
existential	4	1	5	4.3	4.6
Subtotal(subsidiary)	4	1	5	4.3	4.6
Total	93	16	109	100	100
%	85.3	14.7	100		
Count of different Process types used	4	3	4		

There are 93 ranking processes recorded here, compared with 94 ranking clauses in the overview table, Table 5. 3-9 (Column E). The discrepancy is due to there being an instance of an elliptical process.

For the large picture, we see, at the second and third last rows, that there are 93 ranking processes and 16 non-ranking processes, making a total of 109; in terms of proportions, ranking processes make up 85.3% of usage and non-ranking 14.7%.

Now we focus on principal and subsidiary Processes. Principal Processes dominate, making up 95.7% in ranking clauses alone and 95.4% if clauses are considered; subsidiary clauses constitute the remaining 4.6%. Of the principal ranking Processes, material are most common (51), then relational (27), then mental (11). There are 4 subsidiary ranking Processes, shown in the bottom portion of Table 5. 3-17, all existential.

Of the relational Processes in ranking clauses, *attributive intensive processes* occur most often, 18 times; three other types are used, *identifying intensive* (5), *attributive possessive* (2) and *attributive circumstantial* (1). There is also one (1) *identifying circumstantial* process. The only relational Processes in the non-ranking clauses is *attributive intensive* (3). With respect to mental Processes, three types are used in ranking clauses: *cognition* (9), *desideration* (1), *emotion* (1) and no *perception*; nor are there any mental Processes in non-ranking clauses.

Overall, the non-ranking clauses are few (Column C). There are 3 *attributive intensive* processes and one *existential* process.

Across clause types, the frequency of use of types of Processes is:

material	63	(57.8%)
relational	30	(27.5%)
mental	11	(10.1%)
existential	5	(4.6%)
verbal	0	(0%)
behavioural	0	(0%)
Total	109	(100%)

Year 5 students use 4 types of Processes in the ranking clauses in their Expositions (omitting verbal and behavioural) and 3 in their embedded clauses (having no use for mental, behavioural and verbal).

5.3.3.1.2 Realisation – form of Processes (Year 5 Expositions)

Table 5. 3-18 Process form (Year 5 Expositions)

A	B	C	D	E	F
Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Complexity:					
verbal group simplexes	71	11	82	76.3	75.2
verbal group complexes	22	5	27	23.7	24.8
Total	93	16	109	100	100
Other features:					
phrasal verbs	6		6		
modal finites	37	2	39		
modal adjuncts	8		8		

From Table 5. 3-18 it is clear that simplexes occur much more frequently than complexes in the verbal groups used in Year 5 Expositions, in both ranking and embedded clauses. Within the ranking clauses, simplexes account for 74.2% of the groups, and complex 25.8%; when both ranking and embedded clauses are included, the proportion of simplexes drops marginally to 73.1%.

Table 5. 3-19 complements Table 5. 3-18 by explicating the types of complexity found in the verbal group complexes, and Table 5. 3-20 collates instances found in the texts.

Table 5. 3-19 Verb complexing summary (Year 5 Expositions)

Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis					
expansion elaboration					
expansion extension					
expansion enhancement					
projection not applicable					
Hypotaxis	20	2	22	90.9	81.5
expansion elaboration	4		4	18.2	14.8
expansion extension	9	1	10	40.9	37.0
expansion enhancement					
projection	7	1	8	31.8	29.6
Multiple	2	3	5	9.1	18.5
Total	22	5	27	100	100

From Table 5. 3-19 it is evident that hypotaxis is used exclusively, spread over *expansion: elaboration* (10), *projection* (9), and *expansion: elaboration* (5). There are also 5 instances when there is more than one type of complexity being used. These are set out along with the other instances of complexing in Table 5. 3-20.

Table 5. 3-20 Instances of complexing in the verb (Year 5 Expositions)

A	B	C	D	E
Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis				
expansion elaboration				
expansion extension				
expansion enhancement				
projection				
Hypotaxis	21			
expansion elaboration	4	When people begin to smoke , (28. Zizi)	material	gen elab start
		but << >>, your heart begins to weaken (28. Zizi)	material	
		One you begin to smoke , (28. Zizi)	material	
		Smoking should be banned (28. Zizi)	material	passive elab
expansion extension	10	You can change the animals from one rainforest to another by boat. (25. Dane)	material	gen ext can=> modality
		But they also could benefit from it as well. (25. Dane)	material	
		that << // >> we could gain alot of money and fasillaties. (25. Dane)	material	
		<<if we can somehow transport the animals from one forest to another (25. Dane)	material	
		because one bomb could kill millions. (26. Maddy)	material	
		there could be another Shanoble in Australia in many years [[to come]]. (27. Nathan)	existential	
		Also the radiation can travel a long way (27. Nathan)	material	
		and can stay for a long time (27. Nathan) (27. Nathan)	material	
		and can cause cancers [[that can be fatal]]. (27. Nathan)	R id: circ ⁸	
		– cancers [[that can be fatal]]. (27. Nathan)	R attrib: intens[[]]	
expansion enhancement		You can change the animals from one rainforest to another by boat. (25. Dane)	material	
projection	8	and it will give the community more money and wood for houses. (25. Dane)	material	proj Posal:idea will
		With all the money [[that the community gets]] they will build better fasillaties. (25. Dane)	material	

⁸ This process carries a ‘causative’ element in the relational processes that encodes a circumstance of cause:reason (see IFG3 p. 243)

		we will lose oxygen. (25. Dane)	material	
		We will also lose lots of animals and plants. (25. Dane)	material	
		The toxic gases would last for hundreds of thousands of years. (26. Maddy)	R attrib: circ	
		Thirdly, Australia would be a target for terrorism . (26. Maddy)	R attrib: intens	
		which would destroy Australia and it's wildlife. . (26. Maddy)	material	
		[[that <<>> it would be fatal to many people]] (26. Maddy)	R attrib: intens[[]]	
Multiple instances of verb complexing				
	5	Our childrens children will not be able to experience our lovely rainforests. (25. Dane)	material	proj Posal:idea will / gen ext can
		Secondly, Nuclear Power has a lot of waste [[that would have to be buried underground]]. (26. Maddy)	material[[]]	proj Posal:idea will / passive elab
		It would make the place [[unable to be visited or lived in for a very long time]]. . (26. Maddy)	material ⁹	proj Posal:idea will / caus mod agency hi
		It would make the place [[unable to be visited or lived in for a very long time]]. (26. Maddy)	material[[]]	PX: ext and or[[]] / passive elab
		There are many possibilities [[that a bomb could be dropped at any time]]. (27. Nathan)	material[[]]	gen ext can=> modality / passive elab
Total	27			

5.3.3.2 Participants (Year 5 Expositions)

5.3.3.2.1 Functional types of Participants (Year 5 Expositions)

Participant roles are set out in Table 5. 3-21. The numbers in ranking clauses are set out in Column C, non-ranking clauses in Column D, and the total in Column F. Column C as a ratio with the total ranking clauses appears in Column F and as a ratio with the total clauses, ranking and non-ranking, appears in Column G.

⁹ These process is labelled mental, with a 'causative' element accounted for in the meaning of the complexing (Column E). See Appendix B (**Error! Reference source not found.**).

Table 5. 3-21 Participant roles (Year 5 Expositions)

Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material <i>oblique</i>	actor	43	2	45	27.9	26.8
	goal	37	5	42	24.0	25.0
	recipient	2		2	1.3	1.2
	client					
	scope					
	initiator					
	attribute: depictive					
	attribute: resultative	3		3	1.9	1.8
mental <i>oblique</i>	senser	11		11	7.1	6.5
	phenomenon	5		5	3.2	3.0
	inducer					
relational: attrib	carrier	17	3	20	11.0	11.9
	attribute	19	3	22	12.3	13.1
R attrib: intens	carrier	14	3	17	9.1	10.1
	attribute	16	3	19	10.4	11.3
R attrib: circ	carrier (cir:att)					
	attribute (cir:att)					
	carrier (cir:pr)	1		1	0.6	0.6
	attribute (cir:pr)	1		1	0.6	0.6
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	2		2	1.3	1.2
	attribute: possessed(poss:pr/carr:p'r)	2		2	1.3	1.2
	carrier: possessed(poss:pr/carr:p'd)					
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary	2		2	1.3	1.2
relational: ident	token	5		5	3.2	3.0
	value	6		6	3.2	3.0
	R id: intens	token	5	5	3.2	3.0
		value	5	5	3.2	3.0
	R id: circ	token(circ)				
		value(circ)	1	1	0.6	0.6
	R id: poss	token(poss)				
		value(poss)				
	<i>oblique</i>	assigner				
behavioural <i>oblique</i>	beholder					
	behaviour					
	phenomenon(b)					
verbal <i>oblique</i>	sayer					
	receiver					
	verbiage					
	target					
existential	existent	4	1	5	2.6	3.0
	Total	154	14	168	100	100
	Count of different Participant roles used	12	5	12		

Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, recipient, attribute; initiator	85	7	92	55.2	54.8
mental	sensor, phenomenon; inducer	16		16	10.4	9.5
relational		49	6	55	31.8	32.7
attribution identification	carrier, attribute, beneficiary, attributor	38	6	44	24.7	26.2
	token, value; assigner	11		11	7.1	6.5
behavioural	behaviour; phenomenon(b)					
verbal	sayer, receiver; verbiage, target					
existential	existent	4	1	5	2.6	3.0
		154	14	168	100	100

The main Participant roles are taken by those that are directly involved with the Process in descending order of frequency of use.

	Processes %	Participants %
material	57.8	54.8
relational	27.5	32.7
mental	10.1	9.5
verbal	4.6	0
existential	0	3.0
behavioural	0	0
Total	100	100

We are interested in the more obliquely involved Participants, and our observations will revolve around those. Table 5. 3-22 collates information about the use of the indirectly involved Participants that are counted in Table 5. 3-21. Column A again sections the table according to Process type: material, mental, relational, behavioural, verbal, existential, and relational Processes here are again separated into relation-type (attributive or identifying). Column B again lists Participant roles associated with the Process types in Column A, this time separating them into directly and obliquely involved types. Columns C and D record the usage. This allows a window into where different Year group texts are broadening the meaning in their clauses through an increased use of oblique Participant roles.

Table 5. 3-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 5 Expositions)

Different Participant roles used in Year 5 Expositions						
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	(i) direct	(ii) oblique	Total			
material	2	6	8	2	2	4
mental	2	1	3	2		2
relational	4	3	7	4	1	5
attributive	2	2	4	2	1	3
identifying	2	1	3	2		2
behavioural	1	2	3			
verbal	2	2	4			
existential	1	0	1	1	0	1
Total	12	14	26	9	3	12

In Table 5. 3-22 Column C echoes exactly B(i), showing that those Participant roles that are directly related to the process types are all used in the Year 5 Expositions. This accounts for 9 of the Participant roles used. The remaining 3 are used as per Column D, which shows that the material clauses employ 2 Participants that are obliquely involved, and in relational clauses there is use of one oblique Participant role.

5.3.3.2.2 Realisation – form of Participants (Year 5 Expositions)

For information on the forms taken by the Participants listed in Table 5. 3-21, see Table 5. 3-23.

Table 5. 3-23 Summary of forms taken by Participants (Year 5 Expositions)

Participants in ranking clauses					Participants in embedded clauses					Both
Nominal group			Prepositional phrase	Adverbial group	Nominal group			Prepositional phrase	Adverbial group	Total
noun group	adjectival group	clause			noun group	adjectival group	clause			
137	11	3	3		11	3				168
151					14					
154					14					

The Year 5 Expositions display no deviation from the expected in the realisation of their Participants – all are nominal groups.

We can now distinguish between the types of nominal groups employed. The most straightforward realisation of Participants is of course the noun group – the most common of the nominal group types – and this too is reflected in the Year 5 Exposition texts, both in the ranking clauses, where 137 of the 151 nominal groups are noun groups, and in the non-ranking clauses, where 11 of 14 have this form; overall, 148 of 168 forms fall in this category – 88.1%. Second by frequency are adjectival groups (11 in ranking clauses and 3 in non-ranking clauses = 14 of 168), constituting 8.4% of the Participants in all clauses. Whole clauses make up 3 of the 168 Participants (1.8%). Prepositional phrases appear 3 times. Adverbial groups are not used.

Table 5. 3-24 Detail of forms taken by Participants (Year 5 Expositions)

A	B	C	D	E	F	G	H	I	J	K	L
	Participants in ranking clauses					Participants in embedded clauses					Both
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total
	noun group	adj. group	clause			noun group	adj. group	clause			
Nominal groups											
One group	133	11	3	3		11	3				164
Single function (Head only)	62	9	3	2		5	2				83
Pre-mod + Head (no post-mod)	60			1		6					67
Post-mod (may be pre-mod)	11	2					1				14
Two+ groups	4										
Adverbial groups											
One group											
Single function (Head only)											
Pre-mod + Head (no post-mod)											
Post-mod (may be pre-mod)											
Two+ groups											
Summary of forms taken by Participants											
Noun groups	137					11					148
Adj. nominal groups		11					3				14
Clauses			3								3
Prepositional phrases				3							3
Adverbial groups											
Total all	154					14					168

Table 5. 3-23 is expanded into Table 5. 3-24, concentrating on the make-up of the groups. The most frequently used form for Participants involves one nominal group. Looking at that section, a majority contains group consisting of Head only (83 of 164 or 50.6%). Making up the numbers here are the noun groups with 62 in ranking clauses, 5 in embedded; adjectival nominal groups occur 9 times in ranking and 2 in embedded; clause as head occurs 3 times, all in ranking clauses. Next is usage of nominal groups that contain a pre-modifying function (67 of 164, including one in a prepositional phrase, or 40.0%). Nominal groups with a post-modifying function occur 14 times (or 8.3%).

Usage of more than one nominal group in a nominal group complex as Participant occurs 4 times, each time in a ranking clause (representing 2.3% of the total participants).

Altogether, there are 3 prepositional phrases used as Participants, 1.8% of total Participants, using nominal groups with either single function (2) or a pre-modifier (1 only). There are no adverbial groups used as Participants.

Examples of the forms discussed through Table 5. 3-24 are presented in Table 5. 3-25. Included are representative examples of each form.

Table 5. 3-25 Examples of forms taken by Participants (Year 5 Expositions)

Function feature	Form	Example	Participant role	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	noun group	Rainforests (25. Dane)	actor	
	noun group	they (26. Maddy)	senser	
	prep phrase	for them (28. Zizi)	beneficiary	
	clause	[[that <<>> it would be fatal to many people]]. (26. Maddy) <i>in</i> My first reason is [[that <<>> it would be fatal to many people]].	value	
	clause complex	[[unable to be visited // or lived in for a very long time]]. (26. Maddy)	attribute: resultative	
	noun group	a 10% chance of [[living]]. (Nathan)	attribute: possessed(poss:pr/car r:p'r)	
	clause	[[that the waste is hard [[to bury]]]]. (27. Nathan)	value	
with Pre-mod	noun group	the toxic gases (26. Maddy)	carrier (cir:pr)	
	noun group	a terrorism attack in waiting (27. Nathan)	value	multi-word

				Thing
	noun group	many older and uneducated people (Zizi)	actor	para exten in epithet
	noun group	some of our water (27. Nathan)	actor	Focus – selecting
	noun group	a 10% chance of [[living]]. (27. Nathan)	attribute: possessed(poss:pr/car r:p'r)	Focus – selecting
Post-mod	noun group	more money and wood [for houses]. (25. Dane) word complex in Head	goal	Qualifier – phrase
	noun group	the air around them (28. Zizi)	goal	Qualifier – phrase
	adj group	harder for the feet [[to get blood]], (28. Zizi)	attribute: resultative	Qualifier – phrase
	noun group	many other consequences from smoking. (28. Zizi)	existent	Qualifier – phrase
	noun group	diseases like Gangrene, cancers and shakes. (28. Zizi) word complex in Head	goal	Qualifier – phrase
	noun group	normal routine, in you life. (28. Zizi)	attribute	Qualifier – phrase
	noun group	a good idea [[to take the animals out of their environment for a while]] (25. Dane)	attribute	Qualifier – clause
	noun group	a lot of waste [[that would have to be buried underground]]. (26. Maddy)	goal	Qualifier – clause
	noun group	many possibilities [[that a bomb could be dropped at any time]].	existent	Qualifier – clause
	noun group	cancers [[that can be fatal]]. (27. Nathan)	goal	Qualifier – clause
	adj group	harder [[to pump the blood around your body]]. (28. Zizi)	attribute: resultative	Qualifier – clause
	noun group	The person [[who is smoking]] (28. Zizi)	actor	Qualifier – clause
Two+ groups				Taxis/LS at group rank
Head only with Pre-mod	noun group noun group	Australia and it's wildlife (26. Maddy)	goal	para exten
Head only with Pre-mod	noun group noun group	we, the people of Australia (27. Nathan)	senser	para elab
with Pre-mod with Pre-mod	noun group noun group	many deaths and diseased bodies. (28. Zizi)	goal	para exten
with Pre-mod Head only with Pre-mod Head only	noun group noun group noun group noun group	lung, mouth and throat cancer, amputation, heart attack and shakes. (28. Zizi) (para exten in Classifier)	attribute	para exten para exten para exten
Post-mod [Head only Head only Head only]	noun group with group complex in qualifier	diseases like Gangrene, cancers and shakes. (28. Zizi)	goal	hyp elab [para elab para elab]
Adverbial groups				
One group				
Head only				
Pre-mod				
Post-mod				
Two+ groups				

5.3.3.3 Circumstances (Year 5 Expositions)

5.3.3.3.1 Functional types of Circumstances (Year 5 Expositions)

Table 5. 3-26 Types of Circumstances (Year 5 Expositions)

A	B	C	D	E	F
Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive					
accomp: comitative					
angle: source					
angle: viewpoint					
cause: behalf					
cause: purpose					
cause: reason	5		5	16.7	13.9
contingency: concession					
contingency: condition					
contingency: default					
extent: distance	1		1	3.3	2.8
extent: duration	2	2	4	6.7	11.1
extent: frequency					
location: place	10	3	13	33.3	36.1
location: time	3	1	4	10.0	11.1
manner: comparison	1		1	3.3	2.8
manner: degree	2		2	6.7	5.6
manner: means	2		2	6.7	6.7
manner: quality	2		2	6.7	5.6
matter	2		2	6.7	5.6
role: guise					
role: product					
Total	30	6	36	100	100
%	84	16	100		
Count of different types of Circumstances used	10	3	10		

Types of Circumstances are shown in Table 5. 3-26, separated into ranking and other clauses. Altogether, 36 Circumstances are used in these texts, 6 in embedded clauses. In terms of frequency of occurrence, first place is held by location:place (13 occurrences, or 36.1%). Next most frequent is cause:reason (5 usages or 13.9%), followed closely by location:time (4, or 11.1%). The other uses of Circumstances are in ones and twos, in the following order: manner:degree (2), and manner:means (2),

manner:quality (2), matter (2), extent:distance (1) and manner:comparison (1). Of the 22 Circumstance types listed, 10 are used in these Year 5 Expositions.

5.3.3.3.2 Realisation – form of Circumstances (Year 5 Expositions)

Table 5. 3-27 Summary of forms taken by Circumstances (Year 5 Expositions)

B	C	D	E	F	G	H
Circumstances in ranking clauses			Circumstances in embedded clauses			All
Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
25	1	4	5		1	36
30			6			

The forms taken by the 36 Circumstances identified are listed in Table 5. 3-27. Prepositional phrase dominate, with 25 in ranking clauses and 5 in other clauses of the total of 29. Next come adverbial groups, with 4 in ranking clauses and 1 in other clauses. To complete the picture, there is one noun group in ranking clauses.

Table 5. 3-28 Detail of forms taken by Circumstances (Year 5 Expositions)

A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	25	1		5			31
Single function (Head only)	8						8
Pre-mod + Head (no post-mod)	12	1		5			18
Post-mod (may be pre-mod)	5						5
Two+ groups							
Adverbial groups							
One group			4			1	5
Single function (Head only)			3			1	4
Pre-mod + Head (no post-mod)			1				1
Post-mod (may be pre-mod)							
Two+ groups							
Summary of forms taken by Circumstances							
Prepositional phrases	25			5			30
Noun groups		1					1
Adverbial groups			4			1	5
Total all	30			6			36

In Table 5. 3-28 we see that the nominal groups involved in Circumstances (31) are all constructed using a single group. The use of pre-modification (18) is favoured over the bare form (8). Post-modification is also used (5). Adverbial groups are also limited to group simplexes, using Head alone (4) or some form of pre-modification (1 only). Disappointingly, the capacity of the adverbial group to be amplified in a post-modifier is rarely exploited.

Table 5. 3-29 Examples of forms taken by Circumstances (Year 5 Expositions)

Feature	Form	Example	Circumstance type	Note
Prepositional phrases / Nominal groups				
One group				
Head only (including clause as Head)	prep phrase	by boat (25. Dane)	manner: means	
	prep phrase	for terrorism (26. Maddy)	matter	
With Pre-mod	noun group	a long way (27. Nathan)	extent: distance	
	prep phrase	after a couple of cigarettes (28. Zizi)	location: time	
	prep phrase	With all the money [[that the community gets]] (25. Dane)	accomp: comitative	Focus – selecting
	prep phrase	with all my heart and soul (27. Nathan)	manner: degree	Focus – selecting
With Post-mod qualifying phrase	prep phrase	because of the extremely high risk of an explosion (26. Maddy)	cause: reason	Qualifier – phrase
	prep phrase	on [with] the statement of Nuclear Power in Australia (27. Nathan)	matter	Qualifier – phrase
With Post-mod qualifying clause	prep phrase	With all the money [[that the community gets]] (25. Dane)	accomp: comitative	Qualifier – clause
	prep phrase	in many years [[to come]]. (27. Nathan)	location: time	Qualifier – clause
	prep phrase	for the reasons [[listed]]. (27. Nathan)	cause: reason	Qualifier – clause
Two+ groups				
Adverbial Groups				
One group				
Head only	adv group	now (28. Zizi)	location: time	
Pre-mod	adv group	a few kilometers underground (Nathan)	location: place	
Post-mod				
Two+ groups				

5.3.3.4 The Nominal Group – a special case (Year 5 Expositions)

In this section are collected together the nominal groups from the Participants and Circumstances, from both ranking and embedded clauses, from the Year 5 Expositions.

Table 5. 3-30 Nominal groups (Year 5 Expositions)

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	81	7	13	101	35.1	43.7
Head=Thing	69	5	10	84	29.9	36.4
Head≠Thing, elliptical	3			3	1.3	1.3
Head≠Thing, Epithet	9	2	3	14	3.9	6.1
Pre-mod + Head only	74	11	24	109	32.0	47.2
Head=Thing	71	11	22	104	30.7	45.0
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus	3		2	5	1.3	2.2
Post-modification	18	1	2	21	7.8	9.1
with qualifying phrase	9		2	11	3.9	4.8
with qualifying clause	9	1		10	3.9	4.3
with multiple qualifiers						
Total	173	19	39	231	74.9	100

Looking at the ‘big picture’ presented in Table 5. 3-30, in Year 5 Expositions, there are 231 instances of nominal groups (Column E). Use of nominal groups with some pre-modification is the most common, with 47.2% of instances displaying this form. A smaller percentage, 43.7%, consists of the Head only, and 9.1% have a post-modifier (Column G).

Now we will look briefly at the three sections of Table 5. 3-30, starting with the most used form. Of the nominal groups consisting of pre-modifier + Head, by far the most have Head conflated with Thing (104 of 109, or 95.4%). The remaining instances involve the use of focus (an extended numerative) – (5 of 104, or 4.5%). Second most common are Head-only groups. Of these, most are conventional noun groups, where the Head conflates with Thing (84 from 101, or 83.2%). A few are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet (14 of 101, or 13.9%) and two have the Head conflated with an element other than an

Epithet (3 of 101, or 3.0%). Thirdly, in the 9.1% of clauses that contain a post-modifying element, form is almost equally divided between use of a qualifying phrase (11 of 21) and qualifying clause (10 of 21).

Examples of nominal groups appear in Table 5. 3-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the left-most position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 5. 3-31 Examples of nominal groups (Year 5 Expositions)

Total	% Total	Feature	Examples		Notes/type
101	43.7	single function – Head only			
84	36.4	Head=Thing	pronouns (59%); common nouns e.g. <i>oxygen</i> (29.8%); proper nouns e.g. <i>Australia</i> (10.7%). (Some word complexes e.g. <i>gangrene, cancers and shakes.</i>) (Personal pronouns 53.6%).		
3	1.3	Head≠Thing, elliptical	millions <i>in</i> one bomb could kill millions (26. Maddy)		numerative only
14	6.1	Head≠Thing, Epithet	horrible <i>in</i> Your breathe smells horrible (28. Zizi)		
109	47.2	Pre-mod + Head only			
104	45.0	Head=Thing	SEE TABLE BELOW		
		Head≠Thing, elliptical			
		Head≠Thing, Epithet			
5	2.2	Head≠Thing, focus	some of our water (27. Nathan)		Focus – selecting
21	9.1	Post-modification			
11	4.8	with qualifying phrase	with Pre-mod Head=Thing	more money and wood for houses.(25. Dane)	para extension in Epithet
			Head only Head=Thing	diseases like Gangrene, cancers and shakes. (28. Zizi)	word complex in qualifying phrase
10	4.3	with qualifying clause	with Pre-mod Head=Thing	a good idea [[to take the animals out of their environment for a while]] (25. Dane)	non-finite clause as qualifier
			with Pre-mod Head=Thing	many possibilities [[that a bomb could be dropped at any time]]. (27. Nathan)	finite clause as qualifier
			Head only Head≠Thing, Epithet	harder [[to pump the blood around your body]]. (28. Zizi)	non-finite clause as qualifier
		with multiple qualifiers			
231	100	Total			

Having looked at the wide scope of the nominal group in Year 5 Expositions, let us look now at the pre-modifying element, especially the one row in Table 5. 3-30 that summarises much and should not be passed over without elaboration, highlighted in the re-produced table below:

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% ranking	% Total
Head only	81	7	13	101	35.1	43.7
Head=Thing	69	5	10	84	29.9	36.4
Head≠Thing, elliptical	3			3	1.3	1.3
Head≠Thing, Epithet	9	2	3	14	3.9	6.1
Pre-mod + Head only	74	11	24	109	32.0	47.2
Head=Thing	71	11	22	104	30.7	45.0
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus	3		2	5	1.3	2.2
Post-modification	18	1	2	21	7.8	9.1
with qualifying phrase	9		2	11	3.9	4.8
with qualifying clause	9	1		10	3.9	4.3
with multiple qualifiers						
Total	173	19	39	231	74.9	100

The highlighted row contains uses of the pre-modifying element in the nominal group where the Head is in phase with the Thing (i.e., in our data, is not elliptical, is not an Epithet and does not involve the use of the extended numerative known as Focus; these belong to the rows following and examples have been included in Table 5. 3-31). The range of configurations of pre-modifying elements was examined across all the texts in the data set and a list compiled of those used. This list of 25 different configurations is presented in Table 5. 3-32, with data and examples for Year 5 Expositions.

Table 5. 3-32 Pre-modification in the nominal group (Year 5 Expositions)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing				
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing	3	2.9	Some other illnesses (28. Zizi)	the other person (28. Zizi)
DeicticNumerativeEpithetThing				
DeicticNumerativeThing	2	1.9	My first reason (26. Maddy)	a 10% chance of [[living]] (27. Nathan)
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing				
DeicticEpithetEpithetEpithetThing				
DeicticEpithetEpithetThing				
DeicticEpithetThing	9	8.7	our lovely rainforests (25. Dane)	the toxic gases (26. Maddy)
DeicticClassifierClassifierThing				
DeicticClassifierThing	3	2.9	their local rainforest (25. Dane)	a Nuclear explosion (26. Maddy)
DeicticThing	49	47.1	our childrens children (25. Dane)	our warter and wildlife. (27. Nathan)
Deictic2Thing	3	2.9	another Shanoble (27. Nathan)	another person (28. Zizi)
Deictic2ClassifierThing				
NumerativeClassifierThing				
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing	2	1.9	many older and uneducated people (28. Zizi)	
NumerativeThing	18	17.3	one or two rainforests (25. Dane)	a couple of cigarettes (Zizi)
EpithetClassifierThing				
EpithetEpithetThing				
EpithetThing	4	3.8	better fasillaties (25. Dane)	vital medicines (Dane)
ClassifierClassifierThing				
ClassifierThing	11	10.6	nuclear power (26. Maddy)	passive smoking (28. Zizi)
25 Total	104	100		
Count of different configurations used	10			

Of the twenty-five available patterns, 10 were used (44%) in Year 5 Expositions. The most used configuration is, unsurprisingly, DeicticThing (47.1%). Next most common is NumerativeThing (17.3%), followed by ClassifierThing (10.6%). Next most common is DeicticEpithetThing (8.7%). Four (4) instances use EpithetThing (3.8%). There are 3 instances each of DeicticDeictic2Thing and Deictic2Thing (both 2.9%). Two instances each of DeicticNumerativeThing (1.9%) and NumerativeEpithetThing (1.9%) account for the remaining usage.

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 15 of the 104 (14.4%) involve the use of Epithets, one instance using two (in 3 different configurations). Fourteen (14) nominal groups use a Classifier (5.8%), (in 2 configurations).

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres, where the field often involves information about general phenomena rather than personal or specific phenomena or entities. In the case of the Year 5 Expositions, 38 of 104 (or 36.5%) noun groups do not use a deictic.

There is any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

We now turn to look at the comparable features in Year 6 Expositions.

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5.4 Findings: Year 6 Expositions

5.4.1 The Year 6 Expositions

5.4.1.1 Text 29. Come to India! by April

Table 5. 4-1 Text 29. Come to India! (April, 6/E)

29. Come to India! (April, 6/E)	Stages
India is located in the South West of Asia, with an outstanding population of 1,234,866,154 people currently living there. Below I will state my points on why I strongly believe that India would be a fantastic place to visit.	Statement of position
<p>Firstly, as I already mentioned India has a population of 1,234,866,154 which for many people would be considered as a reason for not going there but the other side is that the more people there are the more help you could receive. Also there would be more hotels, transport and shops to choose from.</p> <p>Secondly, if you did end up going to India and you took spending money and changed it for Indian Rupee, you would notice that 5 cents of the Australian dollar is equal to 1.8 in Indian Rupee. So that works in your favour because you will be able to buy alot more.</p> <p>Finally, India has very different methods of transport to other countries,</p>	Arguments
so it would be a fantastic experience.	Reinforcement of statement of position

Table 5. 4-2 Text 29. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
7	2	5	17	2	2	62	153	3.6	9.0

5.4.1.2 Text 30. Reasons why we need a prime minister, by Jack

Table 5. 4-3 Text 30. Reasons why we need a prime minister (Jack, 6/E)

30. Reasons why we need a prime minister (Jack, 6/E)	Stages
Australia is a great country, that's why we need a great leader, right? My reasons why we need a prime minister are listed below.	Statement of position
<p>First and probably most important is that a prime minister is head of a special group called Cabinet. Cabinet brings up a lot of ideas regarding Australian laws, development and other things.</p> <p>Another reason is that the prime minister is the head of the ministers. The ministers are people who are in charge of smaller fields (such as health, transport and education.) The prime minister helps choose them and most appoint a new minister if the former one is absent, retired or deceased.</p> <p>My next reason is that a new Governor-General must be approved by the prime minister. The Queen could try to appoint a Governor-General that doesn't know what's best for Australia but a prime minister could disapprove on him and stop him from getting the job.</p> <p>Finally, the prime minister makes agreements with other countries regarding defense and trade which is very important.</p>	Arguments
So in conclusion I believe that we need a prime minister because of the reasons listed above.	Reinforcement of statement of position

Table 5. 4-4 Text 30. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
11	6	5	18	7	1	98	189	5.4	10.5

5.4.1.3 Text 31. Come to Japan, by Jess

Table 5. 4-5 Text 31. Come to Japan (Jess, 6/E)

31. Come to Japan (Jess, 6/E)	Stages
Japan is a wonderful island country located in Asia. Tokyo, Japan's capital is a small country with a population of 126 166 000 people. Come to Japan for a lifetime experience.	Statement of position
<p>Firstly, a reason to come to Japan is that they have easy transportation. The fastest way to travel on land is by the Bullet Train. The Bullet train travels at a speed of 270 km per hour. There is also a rail link between 2 of the islands through the world's longest tunnel. There is[sic] also many airports that link all the main cities Japan has easy and fast access to transport and travel.</p> <p>Secondly, Japan is well known for their beautiful landmarks. If you are thinking of traveling[sic] to Japan you must see Mount Fuji. Mount Fuji is Japan's most famous and spectacular mountain/volcano that hasn't erupted for more that 100 years. It is a magnificent attraction and so are the cities at night, therefore you should come to Japan.</p>	Arguments
In summary, I strongly believe that Japan is a great country in Asia. It is a wonderful place so come to Japan for a lifetime experience.	Reinforcement of statement of position

Table 5. 4-6 Text 31. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
16	11	5	21	5	0	104	186	5.0	8.9

5.4.1.4 Text 32. Why more people should play soccer, by Travis

Table 5. 4-7 Text 32. Why more people should play soccer (Travis, 6/E)

32. Why more people should play soccer (Travis, 6/E)	Stages
I strongly believe that more people should play soccer because it's fun, you can get fit, you can make friends and you can chose it as a career.	Statement of position
<p>For my first reason I believe more kids and adults should play soccer because it's a fun sport and everybody gets a fair go. It's also a great sport because anybody can play. Anyone can play because it doesn't matter about your height or size.</p> <p>Secondly more people should play soccer because it's a great and fun way to get fit and healthy. It also gives homeless people a chance to have fun. It gives homeless people a chance to play because they have a tournament for poor and homeless people.</p> <p>My next reason why more people should play soccer is that you can make friends with your teammates[sic] and also the opposition.</p> <p>Lastly I think that more children and adults should play soccer because if you get good enough you can chose it as a career and you could get paid hundreds of thousands of dollars every year. For example, Harry Kewell gets paid about \$20 million dollars every year.</p>	Arguments
Those are just some of the reasons why I think that more people should play soccer. So come on and get out there and have fun!	Reinforcement of statement of position

Table 5. 4-8 Text 32. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
12	4	8	30	4	1	99	218	3.3	7.3

5.4.2 Sentence-level information (Year 6 Expositions)

Table 5. 4-9 Overview (Year 6 Expositions)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
29	7	2	5	17	2	2	62	153	3.6	9.0
30	11	6	5	18	7	1	98	189	5.4	10.5
31	16	11	5	21	5	0	104	186	5.0	8.9
32	12	4	8	30	4	1	99	218	3.3	7.3
Part B										
Total	46	23	23	86	18	4	363	746		
Av	11.5	5.75	5.75	21.5	4.5	1	90.75	186.5	4.3	8.9

Texts 29-32 are the Year 6 Expositions. Sentence level characteristics of each text are set out in Table 5. 4-9, summarised in the final 2 rows. From this lower section of the table, it can be seen that the Year 6 Exposition data is contained in 46 sentences, comprised of 23 clause complexes (50%) and 23 clause simplexes (50%). Altogether there are 86 ranking clauses. Of the 86 clauses, 22 contain embedded clauses in some form (Columns F + G) (25.6%) while 64 (74.4%) do not (Columns E – (F + G)). Of the clauses with embedding, 18 contain simplexes and 4 contain complexes. The ratio of total words (746) to lexical items (363) is about 2:1 and the average lexical density across the 4 texts (clauses÷lexical items) is 4.3. The mean length of each clause is 8.9 words.

Usage of simplex and complex clauses to form sentences varies among the texts – two use more simplexes than complexes, and two use more complexes than simplexes. The characterisation of this group would be that the overall usage of clause complexes and the usage of clause simplexes is even.

5.4.2.1 Sentence constituents (Year 6 Expositions)

Table 5. 4-10 Sentences and clauses (Year 6 Expositions)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no relations (simplex)	With paratactic relations	With hypotactic relations	With relations of both types	Total nexuses
1	23	50.0	23				
2	15	32.6		4	11		15
3	3	6.5		2		1	6
4	2	4.3				2	6
5	2	4.3				2	8
6	1	2.2				1	5
7							
8							
Total	46	100	23	6	11	6	40
%			50.0	13.0	23.9	13.0	

In Table 5. 4-9, we saw that the 46 sentences in the Year 6 Expositions are made up of equal numbers of clause simplexes and clause complexes – 23 each. In Table 5. 4-10 further details are presented. As may be seen from Columns A to D of Table 5. 4-10, the most common number of clauses per sentence in the Year 6 Expositions is one: there are 23 of these, comprising 50% of all sentences (Column B). The next most common length is 2 clauses, (32.6%), followed by 3 clauses (6.5%), then 4 clauses (4.3%) and 5 clauses (4.3%) equally, and there is one instance of a lengthy 6-clause sentence. In fact, 1- 2-, 3-, 4-/5- and 6-clause sentences are successively less common (Columns B, C). Half the sentences are clause complexes. In these clause complexes, sentences containing only hypotactic relations (12 sentences) are much more common than those containing relations of both types (6 sentences), and than clause complexes containing only paratactic relations less common (5 sentences). These five are 2 or 3 clauses in length, while the longer sentences contain both types of relations. In this data set, nexuses total 40 (Column H).

Table 5. 4-11 Dependency relations between clauses (Year 6 Expositions)

Nexus type	Count	% of relation type
Paratactic	17	42.5
Hypotactic	23	57.5
Total	40	

Taking into account both the sentences with a single type of relation and those with relations of both types, the total number of paratactic nexuses and the total number of hypotactic nexuses may be determined. The results are tabulated in Table 5. 4-11. It turns out hypotactic nexuses constitute 60% and paratactic nexuses 40% of the whole.

Table 5. 4-12 shows usage of the logico-semantic relations, expansion and projection.

Table 5. 4-12 Taxis/logico-semantic relations in clause complexes (Year 6 Expositions)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification	1			
		description		3	3	
	extension	addition: additive	12	1		1
		addition: adversative	2			
		variation				
		alternation				
	enhancement	temporal				
		spatial				
		manner		1	1	
		cause	2	8	8	
		conditional		4	4	
projection	locution	(speech)				
	idea	(thought)		6	6	
Total			17	23	22	1

Column D of Table 5. 4-12 shows the 17 instances of parataxis. The complexes are *expanded* through *extension: addition* (12 additive and 2 adversative), through *enhancement: cause* (2), and through *expansion: clarification* (1). There are no instances of paratactic *projection*.

Column E shows the 24 instances of hypotaxis. All types of *expansion* are utilised: in *enhancement*, three sub-types – *:cause* (8), *:conditional* (4) and *:manner* (1); in *elaboration: description* (3) and through *extension: addition* (additive 1). There are 6

instances of *projection: idea* (reported thought). These 23 hypotactic clause complexes employ dependent clauses of both finite (22) and non-finite forms (1 only).

Turning now from the make-up of sentences in terms of ranking clauses, the following group of tables transition focus to the occurrences and placements of embedded clauses.

Table 5. 4-13 Dispersion and count of ranking clauses (Year 6 Expositions)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	23	23	14	9
2	15	30	5	25
3	3	9	1	8
4	2	8	2	6
5	2	10		10
6	1	6		6
7				
8				
Total	46	86	22	64
%			25.6	74.4
Average per text	11.5	21.5	5.5	16

Turning now from ranking clauses to embedded clauses, Table 5. 4-13 shows that, in sentences of any length (Columns A, B and C), the total number of clauses that do not contain embedding (Column E) exceed the number that do (Column D), except for 1-clause sentences, in which we find complex to simplex embedding in a ratio of about 3:2. However, over the text-group as a whole, 64 clauses, or 74%, do not contain embedding; 22 (or 26%) do.

It is that 22 (or 26%) of ranking clauses that contain embedding that we are now interested in. We extend the analysis of Table 5. 4-13, explicating in the main, Column D of that table. Table 5. 4-14 tallies the clauses that contain the embeddings (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the constituent element of its host clause (Columns D and E), tallying the embedded instances themselves. Examples are in Column F.

Table 5. 4-14 Embedding in ranking clauses (Year 6 Expositions)

A	B	C	D	E	F
Ranking clause contains/ Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
Embedded clause/s as Qualifier in a nominal group	11	[[]Q	11		My reasons [[why we need a prime minister]] are listed below. (30. Jack)
		[[[]Q]Q			
		multiQ			
	2	[[//]Q	2		Those are just some of the reasons [[why I think // that more people should play soccer]]. (32. Travis)
		[[// //]Q			
		[[// // //]Q			
Embedded clause/s as a whole nominal group	4	[[]clH	3	1	If you are thinking of [[traveling to Japan]] (31. Jess) (Circ)
	1	[[[]Q]clH	1		First and probably most important is [[that a prime minister is head of a special group [[called Cabinet]]]]. (30. Jack)
		multiclH			
	1	[[//]clH	1		but the other side is [[that the more people there are //the more help you could receive]]. (29. April)
		[[// //]clH			
		[[// // //]clH			
	1	[[// []Q]clH	1		Below I will state my points on [[why I strongly believe//that India would be a fantastic place [[to visit.]].]] (29. April)
		[[<>]clH			
Both	2	mixed	4 (2x[]Q) (2x[]clH)		Firstly, a reason [[to come to Japan]] is [[that they have easy transportation]]. (31. Jess)
	22	Totals	23	1	
Summary					
Qualifier in a nominal group	15	62.7%	15		
Whole nominal group	9	37.5%	8	1	
Total	24	100%	23	1	
			95.8%	4.2%	

In the Year 6 Expositions, 22 of 86 clauses contain embedded clauses. Because 2 of the clauses each contain 2 separate embeddings, shown in the ‘Both’ row of Table 5. 4-14, the total number of embeddings in ranking clauses is 24. Table 5. 4-14 shows 15 of the 24 instances being an *embedded clause acting as a Qualifier in a nominal*

group, denoted here with a final Q. All instances occur as Participants. There are 9 instances where the whole nominal group is realised by an entire embedded clause, one of which itself contains an embedded clause as qualifier to a noun group. Eight of these usages are Participants. As may be seen from Columns D and E, embedding in/as Circumstances is again rare, occurring once only, whereas embedding in/as Participants is much more common, occurring 23 times. Table 5. 4-15 provides another way to look at the data in Table 5. 4-14, deconstructing the complexity of the embedding, and providing examples of the clause forms.

Table 5. 4-15 Embedded clauses (Year 6 Expositions)

A	B	C	D
Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
20	simplexes		21
15	[[]]	The fastest way [[to travel on land]] is by the Bullet Train. (31. Jess)	5
4 (2x2)	[[]]c (multiple in one clause)	Firstly, a reason [[to come to Japan]] is [[that they have easy transportation]]. (31. Jess)	2
		My next reason [[why more people should play soccer]] is [[that you can make friends with your teammates and also the opposition]]. (32. Travis)	2
	[[]]el (multiple in one element/group)		
1	[[e]] (with an embedded clause)	First and probably most important is [[that a prime minister is head of a special group [[called Cabinet]]]]. (30. Jack)	1
	e[[]]Q (form of [[e]])	– a special group [[called Cabinet]] – (30. Jack)	1
4	complexes		9
3	[[// //]]	Those are just some of the reasons [[why I think // that more people should play soccer]]. (32. Travis)	2
		The Queen could try to appoint a Governor-General [[that doesn't know // what's best for Australia]] (30. Jack)	2
		but the other side is [[that the more people there are //the more help you could receive]]. (29. April)	2
	[[// //]]		
1	[[// // [[e]]]] [[e]]	Below I will state my points [[on why I strongly believe // that India would be a fantastic place [[to visit]]]]. – [[to visit.]] – (29. April)	3
	[[<<>>]]		
	incl		
24	Total		30
Summary of complexity of embedded clauses			
simplexes	20	83.3%	Average per text: 5
complexes	4	16.7%	Average per text: 1
Totals	24	100%	Average per text: 6

We turn to Table 5. 4-15 for a different perspective on the embedded clauses. Twenty (20) of the embedded clauses are simplexes and four (4) are clause complexes, accounting for the total of 24 embeddings in ranking clauses (Column A).

The embedded simplexes are straightforward in construction and as such can be all lumped together for counting purposes. However, they are found in a range of situations, which the table explicates. In particular, there are 2 clauses that contain 2 separate simplex embeddings; these are shown. There is one instance when a simplex embedding itself contains an embedding; this is shown, and counted as 2 simplexes.

The complex embeddings are also interesting. Three embedded clause complexes each contain 2 clauses (e.g. *Those are just some of the reasons [[why I think // that more people should play soccer]]*). There is also one instance where a 2-clause embedded complex itself contains embedding (*Below I will state my points [[on why I strongly believe // that India would be a fantastic place [[to visit]]]]*).

Examples of each construction are given in Column C. Column D sets out the number of individual clauses embedded for each construction, and then totals these over the simplexes and complexes; the grand total appears in the bottom row of Column D and, for this text-group, amounts to 30.

Table 5. 4-16 Detail of use of embedded clauses (Year 6 Expositions)

A	B	C	D	E
Placement shorthand	How embedding manifests	Simplex/ individual clause count	Examples	
in_ngQ_(P)	as Qualifier in a nominal group in a Participant	20	The ministers are people [[who are in charge of smaller fields (such as health, transport and education.)]] (30. Jack)	value
in_ngQ_(C)	as Qualifier in a nominal group in a Circumstance			
in_ngQ_(e)_(P)	as Qualifier in a nominal adjectival group in a Participant			
in_ngQ_(e)_(C)	as Qualifier in a nominal adjectival group in a Circumstance			
clH_(P)	as whole nominal group in a Participant	9	but the other side is [[that the more people there are // the more help you could receive]] . (29. April)	value
clH_(C)	as whole nominal group in a Circumstance	1	If you are thinking of [[traveling to Japan]] (31. Jess)	circ: matter
in_XX_(P)	in a group complex that is Participant(multi)			
in_XX_(C)	in a group complex that is Circumstance			
Total		30		
Summary of function of embedding and as Participant or Circumstance				
as Qualifier in a nominal group in a Participant		20		
as whole nominal group in a Participant		9		
as Qualifier in a nominal group in a Circumstance				
as whole nominal group in a Circumstance		1		
Total		30		

A final perspective on the embedded clauses is provided by Table 5. 4-16, which reveals how the embedding is manifested (Column B; shorthand in Column A) for each of the 16 instances of embedded clauses in Year 6 Expositions. From Column C it may be seen 20 of the 30 (66.6%) present as *Qualifier in a nominal group in a*

participant, in a straightforward noun group (in_ngQ_(P)); 9 or 30% are the *whole nominal group in a participant* (clH_(P)); 1 (3.3%) appears *as whole nominal group in a circumstance* (clH_(C)). (Note, there are 5 other manifestations identified which do not occur in Year 6 Expositions.) Column D gives examples.

5.4.2.2 General description (Year 6 Expositions)

The Year 6 Expositions have been characterised according to average length in terms of sentences (11.5) and individual ranking clauses (21.5) and by a simple word average (187) which has been divided into lexical (91) and, by calculation, grammatical (96) items. Lexical density has been calculated (4.3). The ranking clauses have been further described by average usage of clause-simplexes (5.75) and clause-complexes (5.75). The explicit logical relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 40% to 60%. Embedded clause usage has been tallied from two perspectives: (i) number of clauses containing embedding and (ii) number of embedded clauses. The average per text for (i) is (5.5): clauses containing embedded simplexes (4.5); those with clause complexes (1). The average per text for (ii) is (6): embedded simplexes (5) and embedded complexes (1). When employed, embedded clauses are used as qualifiers in a nominal group (62.5%) and as Whole nominal groups (37.5%). They are involved in (or as) Participants (95.8%) and (or as) Circumstances (4.2%).

In summary, in Table 5. 4-9, some general features of the Year 6 Expositions are gathered together and summarised. The rest of the tables in Section 5.4.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of analysis: a look at the Experiential elements of the texts (Section 5.4.3, looking first at the functional elements in a clause (Processes, 5.4.3.1; Participants, 5.4.3.2; Circumstances, 5.4.3.3), and then at the breakdown of the nominal group, 5.4.3.4). Now we turn to look more closely at the functional constituents of the sentences/clauses.

5.4.3 Clause constituents – Transitivity (Year 6 Expositions)

5.4.3.1 Processes (Year 6 Expositions)

5.4.3.1.1 Functional types of Processes (Year 6 Expositions)

Table 5. 4-17 Process types (Year 6 Expositions)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	32	16	48	37.2	41.4
mental	14	4	18	16.3	15.5
mental: cognition	13	4	17	15.1	14.7
mental: desideration					
mental: emotion					
mental: perception	1		1	1.2	0.9
relational	34	9	43	39.5	37.1
R attrib: intens	20	4	24	23.3	20.7
R attrib: circ					
R attrib: poss	5	1	6	5.8	5.2
R id: intens	9	3	12	10.5	10.3
R id: circ		1	1		0.9
R id: poss					
Subtotal(principal)	80	29	109	93.0	94.0
Subsidiary					
behavioural					
verbal	3		3	3.5	2.6
existential	3	1	4	3.5	3.4
Subtotal(subsidiary)	6	1	7	7.0	6.0
Total	86	30	116	100	100
%	74.1	25.9	100		
Count of different Process types used	5	4	5		

As a general overview, considering Column D of Table 5. 4-17, a preliminary observation is that the Year 6 Expositions contain 116 Processes, and that principal Processes (109 or 94%) substantially outnumber subsidiary Processes (7 or 6%).

Of the principal ranking Processes, the material are the most common (48 or 41%), the relational next most common (43 or 37%), and the mental are about a third as common (14 or 12%). The subsidiary Processes are divided between existential (4) and verbal (3) (about 3% each).

Comparing Column B with Column C, there are far more ranking clauses, 86, than embedded clauses, 30. The embedded clauses are distributed across the Process types similarly to the ranking clauses.

Within the relational Processes in ranking clauses, *attributive intensive processes* occur most often, 20 times; next, with approximate halving frequencies, *identifying intensive* (9) and *attributive possessive* (5). A similar pattern holds for relational Processes in the non-ranking clauses, with *attributive intensive* occurring most often (3), *identifying intensive* (2) and *attributive possessive* (1); and there is (1) *identifying circumstantial* embedded clause. With respect to mental Processes, all but one in both ranking and non-ranking clauses are of *cognition* (20 ranking, 4 embedded); the sole exception is a ranking clause of *perception* (1).

Across clause types, the frequency of use of types of Processes is:

material	48	(41.4%)
relational	43	(37.1%)
mental	18	(15.5%)
verbal	3	(2.6%)
existential	4	(3.4%)
behavioural	0	(0%)
Total	116	(100%)

Year 6 students use 5 types of Processes in the ranking clauses in their Expositions (omitting behavioural) and 4 in their embedded clauses (avoiding behavioural and verbal).

5.4.3.1.2 Realisation – form of Processes (Year 6 Expositions)

Table 5. 4-18 Process form (Year 6 Expositions)

Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Complexity:					
verbal group simplexes	62	27	89	72.1	76.7
verbal group complexes	24	3	27	27.9	23.3
Total	86	30	116	100	100
Other features:					
phrasal verbs	6		6		
modal finites	25	5	30		
modal adjuncts	2	1	3		

From Table 5. 4-18 it is clear that simplexes occur more frequently than complexes in the verbal groups used in Year 6 Expositions, in both ranking and embedded clauses. Within the ranking clauses, simplexes account for 72.1% of the groups, and complex 27.9%; when both ranking and embedded clauses are included, the proportion of simplexes rises to 76.7%.

Table 5. 4-19 complements Table 5. 4-18 by explicating the types of complexity found in the verbal group complexes, and Table 5. 4-20 collects together instances found in the texts.

Table 5. 4-19 Verb complexing summary (Year 6 Expositions)

Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis					
expansion elaboration					
expansion extension					
expansion enhancement					
projection not applicable					
Hypotaxis	20	3	23	83.3	85.2
expansion elaboration	7		7	29.2	25.9
expansion extension	8	2	10	33.3	37.0
expansion enhancement	1		1	4.2	3.7
projection	4	1	5	16.7	18.5
Multiple complexing	4		4	16.7	14.8
Total	24	3	27	100	100

Hypotaxis is used much more widely than parataxis, exclusively in the Year 6 Expositions under study. Within the hypotactic verb complexing, *expansion* is used far more than *projection*, with *expansion: extension* being the most favoured (10), followed by *expansion: elaboration* (7). Instances of *projection* come next in terms of frequency of use (5), and *expansion: enhancement* is used only once. In addition, there are 4 instances where there is more than one type of complexing used. These are all set out below, in Table 5. 4-20.

Table 5. 4-20 Instances of complexing in the verb (Year 6 Expositions)

Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis				
expansion elaboration				
expansion extension				
expansion enhancement				
projection				
Hypotaxis	17			
expansion elaboration	7	India is located in the South West of Asia (29. April)	material	passive elab
		My reasons [[why we need a prime minister]] are listed below. (30. Jack)	material	
		My next reason is that [[a new Governor-General must be approved by the prime minister]]. (30. Jack)	material[[]]	
		Japan is a wonderful island country [[located in Asia]]. (31. Jess)	material[[]]	
		Secondly, Japan is well known for their beautiful landmarks. (31. Jess)	mental: cognition	
		For example, Harry Kewell gets paid about \$20 million dollars every year. (32. Travis)	material	
		and stop him from getting the job. (30. Jack)	material	caus elab time
expansion extension	10	but a prime minister could disapprove of him (30. Jack)	mental: cognition	gen ext can=> modality
		but the other side is [[that the more people there are //the more help you could receive]]. (29. April)	material[[]]	
		you can get fit, (32. Travis)	R attrib: intens	
		you can make friends (32. Travis)	material	
		and you can chose it as a career. (32. Travis)	mental: cognition	
		because anybody can play. (32. Travis)	material	
		Anyone can play (32. Travis)	material	
		My next reason [[why more people should play soccer]] is [[that you can make friends with your teammates and also the opposition]]. (32. Travis)	material[[]]	
		because <<>> you can chose it as a career (32. Travis)	mental: cognition	
		The prime minister helps choose them (30. Jack)	mental: cognition	caus ext reussive
expansion enhancement	1	<<if you did end up going to India (29. April)	material	gen enhanc time
projection	5	Below I will state my points [[on why I strongly believe // that India would be a fantastic place [[to visit.]] .]] (29. April)	verbal	proj Posal:idea will
		Below I will state my points [[on why I strongly believe // that India would be a fantastic place [[to visit.]] .]] (29. April)	R attrib: intens[[]]	

		Also there would be more hotels, transport and shops [[to choose from]]. (29. April)	existential	
		Secondly, << >>you would notice (29. April)	mental: cognition	
		so it would be a fantastic experience. (29. April)	R attrib: intens	
Multiple complexing	4	which for many people would be considered as a reason [[for not going there]] (29. April)	mental: cognition	proj Posal:idea will // passive elab
		because you will be able to buy alot more. (29. April)	material	proj Posal:idea will // gen ext can
		The Queen could try to appoint a Governor-General [[that doesn't know // whats best for Australia]] (30. Jack)	material	gen ext try // gen ext can=> modality
		and you could get paid hundreds of thousands of dollars every year. (32. Travis)	material	gen ext can=> modality // passive elab
Total	27			

5.4.3.2 Participants (Year 6 Expositions)

5.4.3.2.1 Functional types of Participants (Year 6 Expositions)

Participant roles are set out in Table 5. 4-21. The numbers in ranking clauses are set out in Column C, non-ranking clauses in Column D, and the total an Column E. Column C as a ratio with the total ranking clauses appears in Column F and as a ratio with the total clauses, ranking and non-ranking, appears in Column G.

Table 5. 4-21 Participant roles (Year 6 Expositions)

A	B	C	D	E	F	G
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material <i>oblique</i>	actor	22	7	29	15.8	16.7
	goal	14	4	18	10.1	10.3
	recipient	4		4	2.9	2.3
	client					
	scope	6	4	10	4.3	5.7
	initiator					
	attribute: depictive					
	attribute: resultative					
mental <i>oblique</i>	senser	12	3	15	8.6	8.6
	phenomenon	6		6	4.3	3.4
	inducer					
relational: attrib	carrier	22	4	26	15.8	14.9
	attribute	27	5	32	19.4	18.4

R attrib: intens	carrier	18	2	20	12.9	11.5
	attribute	18	3	21	12.9	12.1
R attrib: circ	carrier (cir:att)	2	1	3	1.4	1.7
	attribute (cir:att)	2	1	3	1.4	1.7
	carrier (cir:pr)					
	attribute (cir:pr)					
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	2	1	3	1.4	1.7
	attribute: possessed(poss:pr/carr:p'r)	7	1	8	5.0	4.6
	carrier: possessed(poss:pr/carr:p'd)					
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary					
relational: ident	token	9	4	13	6.5	7.5
	value	9	3	12	6.5	6.9
R id: intens	token	9	3	12	6.5	6.9
	value	9	2	11	6.5	6.3
R id: circ	token(circ)		1	1		0.6
	value(circ)		1	1		0.6
R id: poss	token(poss)					
	value(poss)					
<i>oblique</i>	assigner					
behavioural <i>oblique</i>	behave					
	behaviour					
	phenomenon(b)					
verbal <i>oblique</i>	sayer	3		3	2.2	1.7
	receiver					
	verbiage	2		2	1.4	1.1
	target					
existential	existent	3	1	4	2.2	2.3
	Total	139	35	174	100	100
	Count of different Participant roles used	13	9	13		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, recipient, attribute; initiator	46	15	61	33.1	35.1
mental	sensor, phenomenon; inducer	18	3	21	12.9	12.1
relational		67	16	83	48.2	47.7
attribution identification	carrier, attribute, beneficiary, attributor	49	9	58	35.3	33.3
	token, value; assigner	18	7	25	12.9	14.4
behavioural	behaviour; phenomenon(b)					
verbal	sayer, receiver; verbiage, target	5		5	3.6	2.9
existential	existent	3	1	4	2.1	2.3
		139	35	174	100	100

The main Participant roles are taken by those that are directly involved with the Process; in descending order of frequency of use they are:

	Processes %	Participants %
material	41.4	35.1
relational	37.1	47.7
mental	15.5	12.1
verbal	2.6	2.9
existential	3.4	2.3
behavioural	0	0
Total	100	100

We are now interested in the more obliquely involved Participants, and our observations will revolve around those.

Table 5. 4-22 collates information about the use of the indirectly involved Participants that are counted in Table 5. 4-21. Column A again sections the table according to Process type: material, mental, relational, behavioural, verbal, existential, and relational Processes here are again separated into relation-type (attributive or identifying). Column B again lists Participant roles associated with the Process types in Column A, this time separating them into directly and obliquely involved types. Columns C and D record the usage. This opens a window into where different Years broaden the meaning in their clauses by an increased use of oblique Participant roles.

Table 5. 4-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 6 Expositions)

Different Participant roles used in Year 6 Expositions						
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	(i) direct	(ii) oblique	Total			
material	2	6	8	2	2	4
mental	2	1	3	2		2
relational	4	3	7	4		4
attributive	2	2	4	2		2
identifying	2	1	3	2		2
behavioural	1	2	3			
verbal	2	2	4	1	1	2
existential	1	0	1	1	0	1
Total	12	14	26	10	3	13

In Table 5. 4-22, Column C echoes exactly B(i), showing that those Participant roles that are directly related to the process types are all used in the Year 6 Expositions. This accounts for 10 of the Participant roles used. The remaining 3 are used as per Column D, which shows that the material clauses employ 2 Participants that are obliquely involved, and in verbal clauses there is use of one oblique Participant role.

5.4.3.2.2 Realisation – form of Participants (Year 6 Expositions)

Table 5. 4-23 Summary of forms taken by Participants (Year 6 Expositions)

Participants in ranking clauses					Participants in embedded clauses					Both
Nominal group			Prepositional phrase	Adverbial group	Nominal group			Prepositional phrase	Adverbial group	Total
noun group	adjectival group	clause			noun group	adjectival group	clause			
122	7	7	2	1	33	2		2		176
136					35					
139					37					

The Year 6 Expositions display no deviation from the expected in the realisation of their Participants – most are nominal groups (171 of 176). The remaining five are made up of four prepositional phrases and one adverbial group.

Noun groups dominate, both in the ranking clauses, where 122 of the 136 nominal groups are noun groups, and in the non-ranking clauses, where 33 of 35 have this form; overall, 155 of 176 forms fall in this category – 88.1%. Second by frequency are adjectival groups (7 in ranking clauses and 2 in non-ranking clauses = 9 of 176), constituting 5.1% of the Participants in all clauses. Whole clauses make up 7 of the 176 Participants (3.9%). Prepositional phrases appear 4 times (2.3%) and an adverbial group is used once in a ranking clause.

Table 5. 4-24 Detail of forms taken by Participants (Year 6 Expositions)

A	B	C	D	E	F	G	H	I	J	K	L
	Participants in ranking clauses					Participants in embedded clauses					Both
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total
	noun group	adj. group	clause			noun group	adj. group	clause			
Nominal groups											
One group	121	7	7	2		32	2		2		171
Single function (Head only)	65	7	7			16	2				97
Pre-mod + Head (no post-mod)	32			2		13			1		46
Post-mod (may be pre-mod)	24					3			1		28
Two+ groups	1					1					2
Adverbial groups											
One group					1						1
Single function (Head only)					1						1
Pre-mod + Head (no post-mod)											
Post-mod (may be pre-mod)											
Two+ groups											
Summary of forms taken by Participants											
Noun groups	122					33					155
Adj. nominal groups		7					2				9
Clauses			7								7
Prepositional phrases				2					2		4
Adverbial groups					1						1
Total all	139					37					176

Table 5. 4-23 is expanded into Table 5. 4-24, concentrating on the make-up of the groups. The most frequently used form for Participants involves one nominal group. Looking at that section, a majority contains group consisting of Head only (97 of 171 or 56.7%). Making up the numbers here are the noun groups with 65 in ranking clauses, 16 in embedded; adjectival nominal groups occur 7 times in ranking and 2 in embedded; clause as head occurs 7 times, all in ranking clauses. Next is usage of nominal groups that contain a pre-modifying function (46 of 171 in total, or 26.9%) This includes 32 noun groups in ranking clauses (and 13 in embedded) and 2 noun groups in prepositional phrases in ranking clauses (and 1 embedded). Nominal

groups with a post-modifying function occur 28 times in the 171 (or 16.4%), with 1 instance in a prepositional phrase which is embedded.

Usage of more than one nominal group in a nominal group complex as Participant occurs 2 times, 1 of which is in an embedded clause, (representing only 1.1% of the total participants).

Altogether, there are 4 prepositional phrases used as Participants, 2.3% of total Participants, using nominal groups with either a pre-modifier (3) or a post-modifier (1). The adverbial group used as Participant consists of Head only.

Examples of the forms discussed through Table 5. 4-24 are presented in Table 5. 4-25. Included are representative examples of each form.

Table 5. 4-25 Examples of forms taken by Participants (Year 6 Expositions)

Function feature	Form	Example	Participant role	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	noun group	that <i>in</i> that works in your favour (29. April)	actor	
	adj group	First and probably most important (30. Jack)	token	para exten in Head
	noun group	alot more <i>in</i> you will be able to buy a lot more (29. April)	goal	sub-mod in numerative
	clause complex	[[that the more people there are // the more help you could receive]]. (29. April)	value	
	clause	[[why we need a great leader]], right? (30. Jack)	value	
	clause	[[that a prime minister is head of a special group called Cabinet]]. (30. Jack)	value	
	clause	[[that the prime minister is the head of the ministers]]. (30. Jack)	value	
	clause	[[that a new Governor-General must be approved by the prime minister]]. (30. Jack)	value	
	clause	[[that they have easy transportation]]. (31. Jess)	attribute	
	clause	[[that you can make friends with your teammates and also the opposition]]. (Travis)	value	
with Pre-mod function	noun group	the prime minister (30. Jack)	actor	
	noun group	hundred of thousands of dollars (Travis)	goal	
	noun group	very different methods of transport to other countries, (29. April)	attribute: possessed(poss:pr/carr: p'r)	Focus – classifying

	noun group	just some of the reasons [[why I think // that more people should play soccer]]. (Travis)	attribute	Focus – selecting
with Post-mod function qualifying phrase	noun group	an outstanding population of 1,234,866,154 people (29. April)	actor	Qualifier – phrase
	noun group	my points [on [[why I strongly believe // that India would be a fantastic place [[to visit]].]] (29. April)	verbiage	Qualifier – phrase containing embedded clause
	noun group	a population of 1,234,866,154 (29. April)	attribute: possessed (poss:pr/carr: p'r)	Qualifier – phrase
	prep phrase	as a reason [for not [[going there]]](29. April)	attribute	Qualifier – phrase containing embedded clause
	noun group	5 cents of the Australian dollar (29. April)	token	Qualifier – phrase
	noun group	1.8 in Indian Rupee. (29. April)	value	Qualifier – phrase
	noun group	very different methods of transport to other countries, (29. April)	attribute: possessed(poss:pr/carr: p'r)	Qualifier – phrase
	noun group	a small country with a population of 126 166 000 people. (31. Jess)	attribute	Qualifier – phrase
	noun group	easy and fast access to transport and travel. (31. Jess)	attribute: possessed(poss:pr/carr: p'r)	Qualifier – phrase
	noun group	the cities at night, (31. Jess)	carrier	Qualifier – phrase
	noun group	a great country in Asia. (31. Jess)	attribute	post-modifying phrase
with Post-mod function qualifying clause	noun group	more hotels, transport and shops [[to choose from]].(29. April)	existent	Qualifier – clause
	noun group	My reasons [[why we need a prime minister]] (30. Jack)	goal	Qualifier – clause
	noun group	people [[who are in charge of smaller fields (such as health, transport and education.)]] (30. Jack)	value	Qualifier – clause
	noun group	a Governor-General [[that doesn't know// [whats best for Australia]] (30. Jack)	goal	Qualifier – clause
	noun group	a wonderful island country [[located in Asia]]. (31. Jess)	attribute	Qualifier – clause
	noun group	a reason [[to come to Japan]] (31. Jess)	carrier	Qualifier – clause
	noun group	The fastest way [[to travel on land]] (31. Jess)	carrier (cir:att)	Qualifier – clause
	noun group	also many airports [[that link all the main cities]] (31. Jess)	existent	Qualifier – clause
	noun group	a great and fun way [[to get fit and healthy]]. (Travis)	attribute	Qualifier – clause
	noun group	a chance [[to have fun]]. (Travis)	goal	Qualifier – clause
	noun group	a chance [[to play]] (Travis)	goal	Qualifier – clause
	noun group	My next reason [[why more people should play soccer]] (Travis)	token	Qualifier – clause

	noun group	just some of the reasons [[why I think // that more people should play soccer]]. (Travis)	attribute	Qualifier – clause
with Post-mod function multiple qualifiers	noun group	also a rail link between 2 of the islands through the world's longest tunnel. (31. Jess)	existent	2 x Qualifier – phrases
Two+ groups				Taxis/LS at group rank
group complex	adj group	absent, retired or deceased. (30. Jack)	attribute	para exten
	noun group	Tokyo, Japan's capital (31. Jess)	carrier	para elab
Adverbial groups				
One group				
Head only	adv group	so <i>in</i> and so are the cities at night (31. Jess)	attribute	

5.4.3.3 Circumstances (Year 6 Expositions)

5.4.3.3.1 Functional types of Circumstances (Year 6 Expositions)

Table 5. 4-26 Types of Circumstances (Year 6 Expositions)

A	B	C	D	E	F
Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive					
accomp: comitative					
angle: source					
angle: viewpoint	1		1	3.4	2.9
cause: behalf	3		3	10.3	8.6
cause: purpose	2		2	6.9	5.7
cause: reason	2		2	6.9	5.7
contingency: concession					
contingency: condition					
contingency: default					
extent: distance					
extent: duration	1		1	3.4	2.9
extent: frequency	2		2	6.9	5.7
location: place	8	6	14	27.6	40.0
location: time	1		1	3.4	2.9
manner: comparison					
manner: degree					
manner: means					
manner: quality	2		2	3.6 6.9	5.7
matter	4		4	14.3 13.8	11.4
role: guise	2		2	7.1 6.9	5.7
role: product	1		1	3.6 3.4	2.9
Total	29	6	35	100	100
%	82	18	100		
Count of different types of Circumstances used	12	1	12		

Types of Circumstances are shown in Table 5. 4-26, separated into ranking and other clauses. In terms of frequency of occurrence, first place is held by location:place (14 occurrences, or 40.0%). Next most frequent is matter (4 usages at 11.4%). cause:benefit is used 3 times (8.6%). Four other Circumstances are each used two times (5.7% each): cause:purpose, cause:reason, extent:frequency and role:guise. Five types are used once each: angle:viewpoint, extent:duration, location:time, manner:quality and role:product. Of the 22 Circumstance types listed, 12 are used in

these Year 6 Expositions. Only one type is used in embedded clauses – the most common, location:place (6 times).

5.4.3.3.2 Realisation – form of Circumstances (Year 6 Expositions)

Table 5. 4-27 Summary of forms taken by Circumstances (Year 6 Expositions)

B	C	D	E	F	G	H
Circumstances in ranking clauses			Circumstances in embedded clauses			All
Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
20	3	5	4		2	34
28			6			

The forms taken by the 34 Circumstances identified are listed in Table 5. 4-27. Prepositional phrase dominate, with 20 in ranking clauses and 4 in embedded clauses of the total of 24. Next come adverbial groups, with 5 in ranking clauses and 2 in other clauses. To complete the picture, there are 3 noun groups in ranking clauses.

Table 5. 4-28 Detail of forms taken by Circumstances (Year 6 Expositions)

A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	19	3		4			26
Single function (Head only)	6			4			10
Pre-mod + Head (no post-mod)	11	3					14
Post-mod (may be pre-mod)	2						2
Two+ groups	1						1
Adverbial groups							
One group			5			2	7
Single function (Head only)			5			2	7
Pre-mod + Head (no post-mod)							
Post-mod (may be pre-mod)							
Two+ groups							
Summary of forms taken by Circumstances							
Prepositional phrases	20			4			24
Noun groups		3					3
Adverbial groups			5			2	7
Total all	28			6			34

In Table 5. 4-28 we see that of the nominal groups involved in Circumstances (27), 25 are constructed using a single group. The use of pre-modification (14) is favoured over the bare form (10). Post-modification is also used (2). Adverbial groups are also limited to group simplexes, using Head alone (7).

Table 5. 4-29 Examples of forms taken by Circumstances (Year 6 Expositions)

Feature	Form	Example	Circumstance type	Note
Prepositional phrases / Nominal groups				
One group				
Head only (including clause as Head)	prep phrase	of him (30. Jack)	matter	
	prep phrase	to Japan (31. Jess)	location: place	
	prep phrase	of [[traveling to Japan]] (31. Jess)	matter	
With Pre-mod	prep phrase	for a lifetime experience (31. Jess)	cause: purpose	
	noun group	every year (32. Travis)	extent: frequency	
	prep phrase	in your favour that works in your favour (29. April)	cause: behalf	
	prep phrase	in the South West of Asia (29. April)	location: place	Focus – selecting
With Post- mod	prep phrase	at a speed of 270 km per hour. (31. Jess)	manner: quality	post-modifying phrase
	prep phrase	because of the reasons [[listed above]]. (30. Jack)	cause: reason	post-modifying clause
Two+ groups				
	prep phrase with nominal group complex	regarding Australian laws, development and other things. (30. Jack)	matter	para extension
	prep phrase with nominal group complex	regarding defense and trade (30. Jack)	matter	para extension
Adverbial Groups				
One group				
Head only	adv group	out there (Travis)	location: place	
Head only	adv group	currently (29. April)	location: time	
Head only	adv group	below (30. Jack)	location: place	
Pre-mod				
Post-mod				
Two+ groups				

5.4.3.4 The Nominal Group – a special case: (Year 6 Expositions)

In this section are collected together the nominal groups from the Participants and Circumstances, from both ranking and embedded clauses, from the Year 6 Expositions.

Table 5. 4-30 Nominal groups (Year 6 Expositions)

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	77	22	10	109	32.0	45.2
Head=Thing	66	20	8	94	27.4	39.0
Head≠Thing, elliptical	4		2	6	1.7	2.5
Head≠Thing, Epithet	7	2		9	2.9	3.7
Pre-mod + Head only	48	14	38	100	19.9	41.5
Head=Thing	47	13	34	94	19.5	39.0
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus	1	1	4	6	0.4	2.5
Post-modification	27	4	1	32	11.2	13.3
with qualifying phrase	12	3	1	16	5.0	6.6
with qualifying clause	14	1		15	5.8	6.2
with multiple qualifiers	1			1	0.4	0.4
Total	152	40	49	241	63.1	100

Looking at the ‘big picture’ presented in Table 5. 4-30, in Year 6 Expositions, there are 241 instances of nominal groups (Column E). A majority of the nominal groups contain a single function – Head-only (109 from 241 nominal groups, or 45.2%) and that a large minority contain a pre-modifying function (100 from 241 nominal groups, or 41.5%). A small minority contain a post-modifying function (32 from 241 nominal groups, or 13.3%) (Column G).

Now we will look briefly at the three sections of Table 5. 4-30, starting with the most used form, Head-only. Those of normal Head=Thing conflation comprise 86.2%, with 8.3% adjectival nominal groups, and 5.5% other elliptical nominal groups. Of the nominal groups consisting of pre-modifier + Head, by far the most are conventional noun groups, where the Head conflates with Thing (94 from 100, or 94%). The other 6% is made up of those nominal groups that employ a Focus

element. Thirdly, in the 13.3% of clauses that contain a post-modifying element, form is almost equally divided between use of a qualifying phrase (16 of 32 or 6.6%) and qualifying clause (15 of 32 or 6.2%). There is one instance of the nominal groups containing multiple post-qualifying elements (0.4%). Examples of nominal groups appear in Table 5. 4-31. The ‘Total’ and ‘% Total’ Columns from above (Columns E and G) are shifted to the left-most position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 5. 4-31 Examples of nominal groups (Year 6 Expositions)

Total	% Total	Feature	Examples	Notes/type	
109	45.2	single function – Head only			
94	39.0	Head=Thing	pronouns (58.5%); common nouns e.g. trade (18.1%); proper nouns e.g. Japan (23.4%). (Some multi-words e.g. <i>Harry Kewell</i> & word complexes e.g. <i>transport and travel</i> .) (Personal pronouns 46.8%.)		
6	2.5	Head≠Thing, elliptical	that <i>in</i> that is why we need a great leader (30. Jack)	deictic only	
9	3.7	Head≠Thing, Epithet	fit and healthy <i>in</i> you want to get fit and healthy (32. Travis)	para extension in Epithet	
100	41.5	Pre-mod + Head only			
94	39.0	Head=Thing	SEE TABLE BELOW		
		Head≠Thing, elliptical			
		Head≠Thing, Epithet			
6	2.5	Head≠Thing, focus	very different methods of transport (29. April)	Focus – classifying	
32	13.3	Post-modification			
16	6.6	with qualifying phrase	with Pre-mod Head=Thing	a small country with a population of 126 166 000 people. (31. Jess)	qualifying phrase contains
			Head only Head≠Thing, elliptical	1.8 in Indian Rupee. (29. April)	numeration as Head
			with Pre-mod Head≠Thing, Epithet	easy and fast access to transport and travel. (31. Jess)	para exten in Epithet
15	6.2	with qualifying clause	Head only Head=Thing	people [[who are in charge of smaller fields (such as health, transport and education.)]] (30. Jack)	relative clause as qualifier
			with Pre-mod Head=Thing	The fastest way [[to travel on land]] (31. Jess)	non finite clause as qualifier
			with Pre-mod Head=Thing	a Governor-General [[that doesn't know // whats best for Australia]] (30. Jack)	relative clause complex as qualifier
1	0.4	with multiple qualifiers	with Pre-mod Head=Thing	a rail link between 2 of the islands through the world's longest tunnel. (31. Jess)	2 x post-qualifying phrases
241	100	Total			

Having looked at the wide scope of the nominal group in Year 6 Expositions, let us look now at the pre-modifying element, especially the one row in Table 5. 4-30 that summarises much and should not be passed over without elaboration, highlighted in the re-produced table below:

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	77	22	10	109	32.0	45.2
Head=Thing	66	20	8	94	27.4	39.0
Head≠Thing, elliptical	4		2	6	1.7	2.5
Head≠Thing, Epithet	7	2		9	2.9	3.7
Pre-mod + Head only	48	14	38	100	19.9	41.5
Head=Thing	47	13	34	94	19.5	39.0
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus	1	1	4	6	0.4	2.5
Post-modification	27	4	1	32	11.2	13.3
with qualifying phrase	12	3	1	16	5.0	6.6
with qualifying clause	14	1		15	5.8	6.2
with multiple qualifiers	1			1	0.4	0.4
Total	152	40	49	241	63.1	100

The highlighted row contains uses of the pre-modifying element in the nominal group where the Head is in phase with the Thing (i.e., in our data, is not elliptical, is not an Epithet and does not involve the use of the extended numerative known as Focus; these belong to the rows following and examples have been included in Table 5. 4-31). The range of configurations of pre-modifying elements was examined across all the texts in the data set and a list compiled of those used. This list of 25 different configurations is presented in Table 5. 4-32, with data and examples for Year 6 Expositions.

Table 5. 4-32 Pre-modification in the nominal group (Year 6 Expositions)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing				
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing	1	1.1	the other side (29. April)	
DeicticNumerativeEpithetThing				
DeicticNumerativeThing	3	3.2	a lot of ideas (30. Jack)	My next reason (30. Jack)
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing	1	1.1		
DeicticEpithetEpithetEpithetThing				
DeicticEpithetEpithetThing				
DeicticEpithetThing	22	23.4	Japan's most famous and spectacular mountain/volcano (31. Jess) para exten in Epithet (and); sub-mod in Epithet (most famous)	a fantastic experience. (29. April)
DeicticClassifierClassifierThing				
DeicticClassifierThing	14	14.9	the prime minister (30. Jack)	a lifetime experience (31. Jess)
DeicticThing	25	26.6	the ministers (30. Jack)	your height or size (Travis) word complex in Thing
Deictic2Thing	4	4.3	another reason (30. Jack)	other countries (30. Jack)
Deictic2ClassifierThing				
NumerativeClassifierThing				
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing				
NumerativeThing	14	14.9	more than 100 years (31. Jess)	about \$20 million dollars (Travis)
EpithetClassifierThing				
EpithetEpithetThing				
EpithetThing	6	6.4	easy and fast access to transport and travel (31. Jess) para exten in Epithet	for poor and homeless people (Travis)
ClassifierClassifierThing				
ClassifierThing	4	4.3	spending money (29. April)	Australian laws (30. Jack)
25 Total	94	100		
Count of different configurations used	10			

Of the twenty-five available patterns, 10 were used (40%) in Year 6 Expositions. The most used configuration is, unsurprisingly, DeicticThing (26.6%). Next most common is DeicticEpithetThing (23.4%), followed by NumerativeThing (14.9%) and DeicticClassifierThing (14.9%). Six (6) instances use EpithetThing (6.4%). Four (4) use ClassifierThing (4.3%) and the same number use Deictic2Thing (4.3%). There

are 3 instances of DeicticNumerativeThing (3.2%) and 1 each of DeicticDeictic2Thing and DeicticEpithetClassifierThing (both 1.1%).

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 29 of the 94 (30.8%) involve the use of Epithets, one instance using two (in 3 configurations). Nineteen (19) nominal groups use a Classifier, (20.2%), also in 3 configurations.

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres. In the case of the Year 6 Expositions, 28 (or 29.8%) noun groups do not use a deictic.

There is any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

This chapter has provided quite a thorough ideational examination of the Expositions written by students in Years 3, 4, 5 and 6. A substantial amount of data is presented, and much will be collected together in Chapter 7 to provide a developmental picture across the Years.

It is now time to turn attention to Reports. Chapter 6 starts with the Reports written by Year 3 students.

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6.1 Findings: Year 3 Reports

6.1.1 The Year 3 Reports

6.1.1.1 Text 33. Moloch, by Annie

Table 6. 1-1 Text 33. Moloch (Annie, 3/R)

33. Moloch (Annie, 3/R)	Stages
Molochs are reptiles and can grow to 15 cm. They live in arid inland.	General classification
<p>Molochs breed in november and december. The female lays eggs in a burrow. The egg hatch in the sun from 13 to 18 weeks.</p> <p>The moloch feeds on special ants that only live in arid inland. They have a long stiky[sic] tounge[sic] to lick up ants but its jaws are weak. Molochs have a good smell but hear sound better from the ground.</p>	<p>Description/Bundled information</p> <p><i>Breeding</i></p> <p><i>Diet</i></p> <p><i>Physical Features</i></p>

Table 6. 1-2 Text 33. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
8	5	3	12	1	0	47	80	3.9	6.7

6.1.1.2 Text 34. Birthday Party Report, by Jasper

Table 6. 1-3 Text 34. Birthday Party Report (Jasper, 3/R)

34. Birthday Party Report (Jasper, 3/R)	Stages
Birthday partys[sic] are held for a boy/girl. We celebrate because that was the day they were born.	General classification <i>Introduction of topic</i>
<p>We usurly[sic] celebrate at the persons house or a special place out, they can be held anywhere. Birthdays are held on the day they were born or another date close to the birthday</p> <p>At a birthday games are played such as pin the tail on the donkey, pass the parcel, pinyarta[sic].</p> <p>Also food and drinks are also at a party, some food and drink is chips, fizzy, fruit.</p> <p>Every party has a cake, usully[sic] on what the Boy/Girl likes. they come in all shapes and sizes.</p> <p>Some partys[sic] have music some don't, some games need music.</p> <p>guest always give presents. This is just a way to celebrate</p> <p>They are my reasons why birthdays are fun.</p>	<p>Description <i>Timing</i></p> <p><i>Games</i></p> <p><i>Food</i></p> <p><i>Cake</i></p> <p><i>Music</i></p> <p><i>Presents</i></p> <p><i>Evaluation</i></p>

Table 6. 1-4 Text 34. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
15	12	3	18	5	0	59	132	3.3	7.3

6.1.1.3 Text 35. Report About Birds, by Maisie

Table 6. 1-5 Text 35. Report About Birds (Maisie, 3/R)

35. Report About Birds (Maisie, 3/R)	Stages
<p>Have you ever wanted to learn about birds? Maybe I can teach you.</p> <p>You usually see birds flying around in the sky but some birds live in water, snow and many more places.</p>	<p>General classification <i>Teaser</i></p> <p><i>Introduction of topic, locating</i></p>
<p>Penguins are the ones that live in the Antartic[sic] where the snow is and it is very cold so they keep warm by their skin. The birds that live in water are usually ducks, swans and pelicans plus much more.</p> <p>Birds have different body parts to humans. They have wings to fly with, claws to kill their food and a beek[sic] to eat. Some birds have very big eyes to look from high buildings and then they can zoom down and get their food.</p> <p>Mother birds lay eggs in a nest and sit on the eggs to keep them warm. After a while the eggs hatch and the mother and father bird have to feed their young. They grow up and have babies and they have to look after their young.</p>	<p>Description <i>Habitat</i></p> <p><i>Physical Features</i></p> <p><i>Breeding</i></p>

Table 6. 1-6 Text 35. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
11	5	6	22	4	0	72	161	3.3	7.3

6.1.1.4 Text 36. Report About Birds, by Mike

Table 6. 1-7 Text 36. Report About Birds (Mike, 3/R)

36. Report About Birds (Mike, 3/R)	Stages
<p>Have you ever heard about all the kinds of birds in the world? I can tell you all about them.</p> <p>There are lots of birds around the world.</p>	<p>General classification <i>Teaser</i></p> <p><i>Identification of topic</i></p>
<p>Like penguins are found in Antarctica. Kookabaras[sic] are found in Australia, Cookatos[sic] are Australian. Emus are from Africa. Flamingoes[sic] are from Africa as well. Birds also have lots of body parts. Birds are covered in feathers, which cover the wings as well. Some birds have webed[sic] feet, others have claws on their feet. They have a beak as well. Some birds use their beaks to catch worms.</p> <p>The bird's young starts off in eggs, which hatch after a few months. After the eggs have hatched, the young have to learn to fly.</p> <p>Some birds like to swim in water, others walk, but most like to fly around. Most are in lots of colours.</p>	<p>Description <i>Habitat</i></p> <p><i>Physical Features</i></p> <p><i>Breeding</i></p> <p><i>Habits</i></p>

Table 6. 1-8 Text 36. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
17	11	6	24	0	0	71	140	3.0	5.8

6.1.2 Sentence level information (Year 3 Reports)

Table 6. 1-9 Overview (Year 3 Reports)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
33	8	5	3	12	1	0	47	80	3.9	6.7
34	15	12	3	18	5	0	59	132	3.3	7.3
35	11	5	6	22	4	0	72	161	3.3	7.3
36	17	11	6	24	0	0	71	140	3.0	5.8
Part B										
T	51	33	18	76	10	0	249	513		
Av	12.75	8.25	4.5	19	2.5	0	62.25	128.25	3.4	6.8

Texts 33-36 are the Year 3 Reports. From Table 6. 1-9 it can be seen that the Year 3 Report data is contained in 51 sentences, comprised of 33 simplexes and 18 complexes. Altogether there are 76 ranking clauses. Of the 76 ranking clauses, 10 contain embedded clauses – all simplexes at this Year level. The ratio of total words (513) to lexical items (249) is a little over 2.1:1, and the average lexical density across the 4 texts (clauses÷lexical items) is 3.4. The mean length of each clause is 6.8 words.

There is not uniformity. For example, three of the four texts utilise more simplexes than complexes. One does the opposite. Overall, using the data in the table above, the characterisation of this group would be that the usage of clause complexes is less than the use of clause simplexes, with the overall ratio being a little less than 1:2.

6.1.2.1 Sentence constituents (Year 3 Reports)

Table 6. 1-10 Sentences and clauses (Year 3 Reports)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no explicit dependency (simplex)	With paratactic dependency (complex)	With hypotactic dependency (complex)	With dependency of both types (complex)	Total nexuses
1	33	64.7	33				
2	12	23.5		6	6		12
3	5	9.8		2		3	10
4	1	2.0				1	3
5							
6							
7							
8							
Total	51	100	33	8	6	4	25
%			64.7	15.7	11.8	7.8	

In Table 6. 1-9, we see that the 51 sentences in the Year 3 Reports are made up of 33 clause simplexes and 18 clause complexes. In Table 6. 1-10 these bare figures are fleshed out. As is confirmed in Columns A to D of Table 6. 1-10, the most common number of clauses per sentence in the Year 3 Reports is one: there are 33 of these, comprising 64.7% of all sentences. (Column B). The next most common length is 2 clauses, (23.5%), followed by 3 clauses (9.8%), then 4 clauses (2.0%). In fact, 1- 2-, 3- and 4- clause sentences are successively less common. (Columns B, C). 35.3% of sentences are clause complexes. In these clause complexes, sentences containing only paratactic relations (8 sentences) are more common than those containing only hypotactic relations (6 sentences), and than clause complexes containing both types of relations (4 sentences). The longer sentences contain both types of relations. In this data set, nexuses total 25 (Column H).

Table 6. 1-11 Dependency relations between clauses (Year 3 Reports)

Nexus type	Count	% of relation type
Paratactic	15	60.0
Hypotactic	10	40.0
Total	25	

Taking into account both the sentences with a single type of relation and those with relations of both types, the total number of paratactic nexuses and the total number of

hypotactic nexuses may be determined. The results are tabulated in Table 6. 1-11. It turns out paratactic nexuses constitute 60.0% and hypotactic nexuses 40.0% of the whole.

Table 6. 1-12 shows usage of the logico-semantic relations, expansion and projection.

Table 6. 1-12 Taxis/logico-semantic relations in clause complexes (Year 3 Reports)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification				
		description		3	2	1
	extension	addition: additive	10			
		addition: adversative	4			
		variation				
		alternation				
	enhancement	temporal	1	1	1	
		spatial				
		manner				
		cause		6	2	4
		conditional				
projection	locution idea	(speech)				
		(thought)				
Total			15	10	5	5

Column D of Table 6. 1-12 shows the 15 instances of parataxis. The complexes are *expanded* through *extension: addition* (10 additive and 4 adversative) and through *enhancement: temporal* (1). There are no instances of paratactic *projection*.

Column E shows the 10 instances of hypotaxis. The complexes are expanded through: *elaboration: description* (3), no *extension*, and in *enhancement*, two sub-types – *:temporal* (1), and *:cause* (6). There are no instances of hypotactic *projection*. The 10 hypotactic clause complexes employ an equal number of finite (5) and non-finite (5) dependent clauses.

Turning now from the make-up of sentences in terms of ranking clauses, the following group of tables transition focus to the occurrences and placements of embedded clauses.

Table 6. 1-13 Dispersion and count of ranking clauses (Year 3 Reports)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	33	33	5	28
2	12	24	3	21
3	5	15	2	13
4	1	4		4
5				
6				
7				
8				
Total	51	76	10	66
%			13.2	86.8
Average per text	12.25	19	2.5	16.5

Table 6. 1-13 shows that, in sentences of any length (Columns A, B and C), the number of clauses that do not contain embedding (Column E) substantially exceed the number that do (Column D). Over the text-group as a whole, 66 clauses, or 86.8%, do not contain embedding; 10 (or 13.2%) do.

It is that 10 (or 13.2%) of ranking clauses that contain embedding that we are now interested in. We extend the analysis of Table 6. 1-13, explicating in the main, Column D of that table. Table 6. 1-14 tallies (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the functional constituent element of its host clause (Columns D and E).

Table 6. 1-14 Embedding in ranking clauses (Year 3 Reports)

A	B	C	D	E	F
Ranking clause contains/ Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
embedded clause/s as Qualifier in a nominal group	6	[[]Q	5	1	The moloch feeds on special ants [[that only live in arid inland]]. (33. Annie)
	1	[[[]Q]Q	1		Penguins are the ones [[that live in the Antarctic [[where the snow is]]]]. (35. Maisie)
	1	multiQ	1		They have wings [[to fly with]], claws [[to kill their food]] and a beak [[to eat]]. (35. Maisie)
		[[//]Q			
		[[// //]Q			
		[[// // //]Q			
embedded clause/s as a whole nominal group	2	[[]clH	2		... usually {based} on [[what the Boy/Girl likes]]. (34. Jasper)
		[[[]Q]clH			
		multiclH			
		[[//]clH			
		[[// //]clH			
		[[// // //]clH			
		[[// []Q]clH			
		[[<<>>]clH			
both		mixed			
	10	Totals	9	1	
Summary					
Qualifier in a nominal group	8	80%	7	1	
Whole nominal group	2	20%	2		
Total	10	100%	9	1	
			90%	10%	

In the Year 3 Reports, 10 of 76 clauses contain embedded clauses. Table 6. 1-14 shows 8 of the 14 instances being of the embedded clause acting as a Qualifier in a nominal group, denoted here with a final Q. Most instances (7) occur as a Participant. There are 2 instances where the whole nominal group is realised by an entire embedded clause. As may be seen from Columns D and E, embedding in/as Circumstances is rare, occurring once, whereas embedding in/as Participants is much more common, occurring 9 times.

Table 6. 1-15 provides a different way of looking at the data in Table 6. 1-14, deconstructing the complexity of the embedding, and providing examples of the clause forms.

Table 6. 1-15 Embedded clauses (Year 3 Reports)

A	B	C	D
Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
12	simplexes		13
8	[[]]	The moloch feeds on special ants [[that only live in arid inland]]. (33. Annie)	8
	[[]]c (multiple in one clause)		
3	[[]]el (multiple in one element/group)	They have wings [[to fly with]], claws [[to kill their food]] and a beak [[to eat]]. (35. Maisie)	3
1	[[e]] (with an embedded clause)	Penguins are the ones [[that live in the Antartic [[where the snow is]]]]. (35. Maisie)	1
	e[[]]Q (form of [[e]])	– [[where the snow is]] – (35. Maisie)	1
	complexes		
	[[// //]]		
	[[// // //]]		
	[[// // [[]]]]		
	[[<<>>]] incl		
12	Total		13
Summary of complexity of embedded clauses			
simplexes	12	100%	Average per text: 3
complexes			Average per text: 0
Totals	12	100%	Average per text: 3

Now we consider the embedded clauses in terms of complexity (Table 6. 1-15). Most (12) of the simplexes are straightforward and all occur in separate clauses. One, however, is buried within another clause simplex (*Penguins are the ones [[that live in the Antartic [[where the snow is]]]]. (35. Maisie)*). This occurrence accounts for the extra clause embedding evident in (Column D). Some examples are given in Column C.

Table 6. 1-16 Detail of use of embedded clauses (Year 3 Reports)

A	B	C	D	E
Placement shorthand	How embedding manifests	Simplex/ individual clause count	Examples	
in_ngQ_(P)	as Qualifier in a nominal group in a Participant	7	The moloch feeds on special ants [[that only live in arid inland]]. (33. Annie)	goal
			because that was the day [[they were born]]. (34. Jasper)	value
			This is just a way [[to celebrate]] (34. Jasper)	attribute
			They are my reasons [[why birthdays are fun]]. (34. Jasper)	value
			Penguins are the ones [[that live in the Antarctic [[where the snow is]]]] (35. Maisie) (x2)	value
			The birds [[that live in water]] are usually ducks, swans and pelicans plus much more. (35. Maisie)	token
in_ngQ_(C)	as Qualifier in a nominal group in a Circumstance	1	Birthdays are held on the day [[they were born]] or another date close to the birthday. (34. Jasper)	location: time
in_ngQ_(e)_(P)				
in_ngQ_(e)_(C)				
clH_(P)	as whole nominal group in a Participant	2	usully (based) on [[what the Boy/Girl likes]]. (34. Jasper)	attribute
			You usually see [[birds flying around in the sky]] (35. Maisie)	phenom
clH_(C)				
in_XX_(P)	in a group complex that is Participant (multi)	3	They have wings [[to fly with]], claws [[to kill their food]] and a beek [[to eat]]. (35. Maisie)	attribute: possessed
in_XX_(C)				
	Total	13		
Summary of function of embedding and as Participant or Circumstance				
as Qualifier in a nominal group in a Participant		10	(includes 3 from group complex)	
as whole nominal group in a Participant		2		
as Qualifier in a nominal group in a Circumstance		1		
as whole nominal group in a Circumstance				
Total		13		

A final perspective on the embedded clauses is provided by Table 6. 1-16, which reveals how the embedding is manifested (Column B; shorthand in Column A) for each of the 13 instances of embedded clauses in Year 3 Reports. From Column C it may be seen 7 of the 13 (54%) present as *Qualifier in a nominal group in a participant*, in a straightforward noun group (in_ngQ_(P)); 3 or 23% are involved in

a group complex that is a single functional element, a Participant in this case (in_XX_(P)); 2 or 15% are the *whole nominal group in a participant* (clH_(P)); and the remaining 1 (8%) appears in *as Qualifier in a nominal group in a Circumstance* (in_ngQ_(C)). (Note, there are 4 other manifestations identified which do not occur in Year 3 Reports.) Column D gives examples.

6.1.2.2 General description (Year 3 Reports)

The Year 3 Reports have been characterised according to average length in terms of sentences (12.75) and individual ranking clauses (19) and by a simple word average (128) which has been divided into lexical (62) and, by calculation, grammatical (66) items. Lexical density has been calculated (3.4). The ranking clauses have been further described by average usage of clause-simplexes (8.25) and clause-complexes (4.5). The explicit interdependency relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 60% to 40%.

Embedded clause usage has been tallied from two perspectives: (i) number of clauses containing embedding and (ii) number of embedded clauses. The average per text for (i) is 2.5: clauses containing embedded simplexes (2.5) those with clause complexes (0). The average per text for (ii) is (3): embedded simplexes (3) and embedded complexes (0). When employed, embedded clauses are used both as qualifiers in a nominal group (80%) and as Whole nominal groups (20%). They are involved in (or as) Participants (90%) and in (or as) Circumstances (10%).

In summary, in Table 6. 1-9, some general features of the Year 3 Reports are gathered together and summarised. The rest of the tables in Section 6.1.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of analysis: a look at the Experiential elements of the texts (Section 6.1.3), looking first at the functional elements in a clause (Processes, 6.1.3.1; Participants, 6.1.3.2; Circumstances, 6.1.3.3), and then at the breakdown of the nominal group, 6.1.3.4).

Now we turn to look more closely at the functional constituents of the sentences/clauses.

6.1.3 Clause constituents – Transitivity (Year 3 Reports)

6.1.3.1 Processes (Year 3 Reports)

6.1.3.1.1 Functional types of Processes (Year 3 Reports)

Table 6. 1-17 Process types (Year 3 Reports)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	38	10	48	50.0	53.9
mental	4	1	5	5.3	5.6
mental: cognition	1		1	1.3	1.1
mental: desideration					
mental: emotion		1	1		1.1
mental: perception	3		3	3.9	3.4
relational	32	2	34	42.1	38.2
R attrib: intens	14	2	16	18.4	18.0
R attrib: circ					
R attrib: poss	13		13	17.1	14.6
R id: intens	3		3	3.9	3.4
R id: circ	2		2	2.6	2.2
R id: poss					
Subtotal(principal)	74	13	87	97.4	97.8
Subsidiary					
behavioural					
verbal	1		1	1.3	1.1
existential	1		1	1.3	1.1
Subtotal(subsidiary)	2		2	2.6	2.2
Total	76	13	89	100	100
%	85.4	14.6	100		
Count of different Process types used	5	3	5		

We now turn to Transitivity and Process types, as set out in Table 6. 1-17. To take in the ‘big picture’ first, it is useful to start at the second and third last rows. Here we see there are 76 ranking clauses and 13 non-ranking clauses, making a total of 89; in terms of proportions, ranking clauses make up 85.4% of the clauses and non-ranking 14.6%.

Of the principal ranking Processes, material are the most common (38), followed closely by relational (32). Mental are eight times less common (4). The subsidiary Processes provide only 2 instances, 1 each from verbal and existential processes.

Comparing with Column C, there are far more ranking clauses, 76, than embedded clauses, 13. The embedded clauses are distributed in the same pattern as the ranking clauses – material (10) to relational (2) to mental (1). There are no subsidiary embedded clauses.

Within the relational Processes in ranking clauses, there is a heavy reliance on attributive processes: *attributive intensive processes* (14) and *attributive possessive* (13) occur with about equal frequency. In contrast, identifying processes are relatively few: *identifying intensive* (3) and *identifying circumstantial* (2). There are only two embedded instances, both *attributive intensive*, (2). With respect to mental Processes, the order of frequency of appearance in ranking clauses is *perception* (3) and *cognition* (1); in non-ranking clauses, the sole example is *emotion*.

The combination of the ranking and embedded clauses is given in Columns D and F of Table 6. 1-17. The effect of the embedded clauses emphasises the dominance of the material Processes observed in the ranking clauses, with now more than half (53.9%) of the Process types being material. Next most represented are the relational Processes (38.2%), then come mental Processes (5.6%). Subsidiary Processes make up the remainder (2.2%). In approximate terms, half the Processes are material and two fifths relational.

Across clause types, the frequency of use of types of Processes is:

material	48	(53.9%)
relational	34	(38.2%)
mental	5	(5.6%)
existential	1	(1.1%)
verbal	1	(1.1%)
behavioural	0	(0%)
Total	89	(100%)

6.1.3.1.2 Realisation – form of Processes (Year 3 Reports)

Table 6. 1-18 Process form (Year 3 Reports)

A	B	C	D	E	F
Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
A Complexity:					
Verbal group simplexes	61	13	74	80.3	83.1
Verbal group complexes	15		15	19.7	16.9
Total	76	13	89	100	100
B Other features:					
Phrasal verbs	11		11		
Modal finites	9		9		
Modal adjuncts	11		11		

Whether in ranking or non-ranking clauses, verbal group simplexes (total, 74) greatly outnumber verbal group complexes (total, 15) (Table 6. 1-18). In total, simplexes are 4 times more common than complexes (Column F). Other features, in order of frequency in ranking clauses (Column B), are phrasal verbs (11) and modal adjuncts (11) and modal finites (9); the same features do not appear in non-ranking clauses (Column C).

Table 6. 1-19 complements Table 6. 1-18 by explicating the types of complexity found in the verbal group complexes, and Table 6. 1-20 collates instances found in the texts.

Table 6. 1-19 Verb complexing summary (Year 3 Reports)

A	B	C	D	E	F
Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis					
expansion elaboration					
expansion extension					
expansion enhancement					
projection not applicable					
Hypotaxis	14		14	93.3	93.3
expansion elaboration	6		6	40.0	40.0
expansion extension	5		5	33.3	33.3
expansion enhancement					
projection	3		3	20.0	20.0
Multiple complexing	1		1	6.7	6.7
Total	15		15	100	100

To summarise verbal group complexing, Table 6. 1-19 Column F, 93.3% of the total involve hypotaxis alone, and 6.7% multiple, and 0% parataxis. Regarding hypotaxis, a total of 6 cases involve *expansion: elaboration*, 5 *expansion: extension*, and 3 *projection* (Column D). Of the 15 total cases, none occur in embedded clauses (Column C). Instances are set out in detail in Table 6. 1-20.

Table 6. 1-20 Instances of complexing in the verb (Year 3 Reports)

Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis				
expansion elaboration				
expansion extension				
expansion enhancement				
projection				
Hypotaxis	14			
expansion elaboration	6	Birthday partys are held for a boy/girl. (34. Jasper)	material	passive elab
		Birthdays are held on the day [[they were born]] or another date close to the birthday. (34. Jasper)	material	
		At a birthday games are played such as pin the tail on the donkey, pass the parcel, pinyarta. (34. Jasper)	material	
		Like penguins are found in Antarctica. (36. Mike)	material	
		Kookabaras are found in Australia, (36. Mike)	material	
		Birds are covered in feathers, (36. Mike)	R id: circ	
expansion extension	5	and can grow to 15 cm. (33. Annie)	material	general: can
		and then they can zoom down (35. Maisie)	material	
		Maybe I can teach you. (35. Maisie)	material	general: can=> modality
		I can tell you all about them. (36. Mike)	verbal	
		have to learn to fly	material	gen ext learn
expansion enhancement				
projection	3	Have you ever wanted to learn about birds?	mental: cognition	proposal: idea want
		Some birds like to swim in water,	material	
		but most like to fly around .	material	
Multiple	1	can be held	material	general: ext can; passive elab
Total	15			

6.1.3.2 Participants (Year 3 Reports)

6.1.3.2.1 Functional types of Participants (Year 3 Reports)

Participant roles are set out in Table 6. 1-21. The numbers in ranking clauses are set out in Column C, non-ranking clauses in Column D, and the total in Column E. Column C as a ratio with the total ranking clauses appears in Column F and as a ratio with the total clauses, ranking and non-ranking, appears in Column G.

Table 6. 1-21 Participant roles (Year 3 Reports)

A	B	C	D	E	F	G
Process type	Participant roles	Ranking	Embedded	All	% Ranking	% Total
material <i>oblique</i>	actor	22	6	28	19.1	21.9
	goal	17	1	18	14.8	14.1
	recipient					
	client					
	scope	2		2	1.7	1.6
	initiator					
	attribute: depictive					
	attribute: resultative	1		1	0.9	0.8
mental <i>oblique</i>	senser	5	1	6	4.3	4.7
	phenom	2	1	3	1.7	2.3
	inducer					
relational: attrib	carrier	26	2	28	22.6	21.9
	attribute	26	2	28	22.6	21.9
R attrib: intens	carrier	10	2	12	8.7	9.4
	attribute	11	1	12	9.6	9.4
R attrib: circ	carrier (cir:att)	3		3	2.6	2.3
	attribute (cir:att)	3	1	4	2.6	3.1
	carrier (cir:pr)					
	attribute (cir:pr)					
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	13		13	11.3	10.2
	attribute: possessed(poss:pr/carr:p'r)	12		12	10.4	9.4
	carrier: possessed(poss:pr/carr:p'd)					
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary					
relational: ident	token	5		5	4.3	3.9
	value	5		5	4.3	3.9
R id: intens	token	3		3	2.6	2.3
	value	3		3	2.6	2.3
R id: circ	token(circ)	2		2	1.7	1.6
	value(circ)	2		2	1.7	1.6
R id: poss	token(poss)					
	value(poss)					

oblique	assigner					
behavioural	behave					
oblique	behaviour					
	phenomenon(b)					
verbal	sayer	1		1	0.9	0.8
	receiver	1		1	0.9	0.8
oblique	verbiage	1		1	0.9	0.8
	target					
existential	existent	1		1	0.9	0.8
	Total	115	13	128	100	100
	Count of different Participant roles used	14	6	14		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, recipient, attribute; initiator	42	7	49	36.5	38.3
mental	sensor, phenomenon; inducer	7	2	9	6.1	7.0
relational		62	4	66	53.9	51.6
attribution	carrier, attribute, beneficiary, attributor	52	4	56	45.2	43.8
identification	token, value; assigner	10		10	8.7	7.8
behavioural	behaviour; phenomenon(b)					
verbal	sayer, receiver; verbiage, target	3		3	2.6	2.3
existential	existent	1		1	0.9	0.8
		115	13	128	100	100

The main Participant roles are naturally taken by those that are directly involved with the Process. In decending order of frequency of use:

	Processes %	Participants %
material	53.9	38.3
relational	38.2	51.6
mental	5.6	7.0
verbal	1.1	2.3
existential	1.1	0.8
behavioural	0	0
Total	100	100

There is no need to comment on these more than in passing, as they are largely self-evident. We are, however, interested in the more obliquely involved Participants, and our observations will revolve around those.

Table 6. 1-22 collates information about the use of the indirectly involved Participants that are counted in Table 6.1-21. Column A again sections the table

according to Process type: material, mental, relational, behavioural, verbal, existential, and relational Processes here are again separated into relation-type (attributive or identifying). Column B again lists Participant roles associated with the Process types in Column A, this time separating them into directly and obliquely involved types. Columns C and D record the usage. This allows a window into where different Year group texts are broadening the meaning in their clauses through an increased use of oblique Participant roles.

Table 6. 1-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 3 Reports)

Different Participant roles used in Year 3 Reports						
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	(i) direct	(ii) oblique	Total			
material	2	6	8	2	2	4
mental	2	1	3	2		2
relational	4	3	7	4		4
attributive	2	2	4	2		2
identifying	2	1	3	2		2
behavioural	1	2	3			
verbal	2	2	4	2	1	3
existential	1	0	1	1	0	1
Total	12	14	26	11	3	14

In Table 6.1-22, Column C echoes almost exactly B(i), showing that those Participant roles that are directly related to the process types are almost all used in the Year 3 Reports. This accounts for 11 of the Participant roles used. The remaining 4 are used as per Column D, which shows that the material clauses employ 2 Participants that are obliquely involved, and in verbal clauses there is use of one oblique Participant role.

6.1.3.2.2 Realisation – form of Participants (Year 3 Reports)

Table 6. 1-23 Summary of forms taken by Participants (Year 3 Reports)

B	C	D	E	F	G	H	I	J	K	L
Participants in ranking clauses					Participants in embedded clauses					Both
Nominal group			Prepositional phrase	Adverbial group	Nominal group			Prepositional phrase	Adverbial group	Total
noun group	adjectival group	clause			noun group	adjectival group	clause			
104	5	2	4		11	1			1	128
111					12					
115					13					

The Year 3 Reports display no deviation from the expected in the realisation of their Participants – the majority are nominal groups (111 in ranking clauses, and 12 in embedded clauses, making 96%). Prepositional phrases are used 4 times (3.2%), and there is a lone adverbial group (0.8%) in an embedded clause.

Noun groups dominate both in the ranking clauses, where 104 of the 111 nominal groups are noun groups, and in the non-ranking clauses, where 11 of 12 have this form; overall, 115 of 128 forms fall in this category – 89.8%. Second by frequency are adjectival groups (5 in ranking clauses and 1 in non-ranking clauses = 6 of 128 or 4.7%). There are four prepositional phrases used (all in ranking clauses), constituting 3.1% of the Participants in all clauses. Whole clauses are used twice in the 128 Participants (1.6%). Adverbial groups are used once, in an embedded clause (0.8%).

Table 6. 1-24 Detail of forms taken by Participants (Year 3 Reports)

A	B	C	D	E	F	G	H	I	J	K	L
	Participants in ranking clauses					Participants in embedded clauses					Both
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total
	noun group	adj. group	clause			noun group	adj. group	clause			
Nominal groups											
One group	101	5	2	4		11	1				124
Single function (Head only)	58	5	2	2		8	1				76
Pre-mod + Head (no post-mod)	36			2		3					41
Post-mod (may be pre-mod)	7										7
Two+ groups	3										
Adverbial groups											
One group										1	1
Single function (Head only)										1	1
Pre-mod + Head (no post-mod)											
Post-mod (may be pre-mod)											
Two+ groups											
Summary of forms taken by Participants											
Noun groups	104					11					115
Adj. nominal groups		5					1				6
Clauses			2								2
Prepositional phrases				4							4
Adverbial groups										1	1
Total all	115					13					128

Table 6. 1-23 is expanded into Table 6. 1-24, concentrating on the make-up of the groups. The most frequently used form for Participants are nominal groups involving one nominal group. Looking at that section, a majority contains group consisting of Head only (76 of 124 or 61.3%). Making up the numbers here are the noun groups with 58 in ranking clauses, 8 in embedded; adjectival nominal groups occur 5 times in ranking and 1 in embedded; clause-as-head occurs 2 times, as do 2 prepositional phrases, these latter two forms all in ranking clauses. Next is usage of nominal groups that contain a pre-modifying function (41 of 124, including 2 in a prepositional phrase, or 33.1%). Nominal groups with a post-modifying function occur 7 times (or 5.6%).

Usage of more than one nominal group in a nominal group complex as Participant occurs 3 times, each time in a ranking clause (representing 2.3% of the total Participants).

Altogether, there are 4 prepositional phrases used as Participants, 3.1% of total Participants, using nominal groups with either single function (2) or a pre-modifier (2). There are no adverbial groups used as Participants.

To sum up the way that Participants in Year 3 Reports are realised, of the 128 in total, 115 are noun groups, 6 are adjectival groups, 4 are prepositional phrases, 2 are realised by a whole clause and 1 as an adverbial group.

Examples of the forms discussed through Table 6. 1-24 are presented in Table 6. 1-25. Included are representative examples of each form.

Table 6. 1-25 Examples of forms taken by Participants (Year 3 Reports)

Function feature	Form	Example	Participant role	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	noun group	eggs (35. Maisie)	goal	
	noun group	some (34. Jasper)	carrier	
	adj group	Australian (36. Mike)	attribute	
	clause	[[what the Boy/Girl likes]]. (34. Jasper)	attribute	macro-thing: Wh cl
	clause	[[birds flying around in the sky]] (35. Maisie)	phenom	
with Pre-mod	noun group	birthday parties (34. Jasper)	goal	
	noun group	a good smell (33. Annie)	attribute: possessed	
	noun group	different body parts (35. Maisie)	attribute: possessed	
	noun group	all about them.	verbiage	Focus – selecting
Post-mod	noun group	all about them.	verbiage	Qualifier – phrase
	noun group	special ants [[that only live in arid inland]]. (33. Annie)	goal	Qualifier – clause
	noun group	just a way [[to celebrate]] (34. Jasper)	attribute	Qualifier – clause
	noun group	my reasons [[why birthdays are fun]]. (34. Jasper)	value	Qualifier – clause
	noun group	the ones [[that live in the Antarctic [[where the snow is]]]]. (35. Maisie)	value	Qualifier – clause
	noun group	The birds [[that live in water]] (35. Maisie)	carrier	Qualifier – clause
Two+ groups				Taxis/LS at group rank
Head only [multi-word Head multi-word Head Head only]	noun group with group complex in qualifier	games .such as pin the tail on the donkey, pass the parcel, pinyarta. (34. Jasper)	goal	hyp elab [para elab para elab para elab]
Head only Head only Head only Head only	noun group noun group noun group noun group	ducks, swans and pelicans plus much more (35. Maisie)	attribute	para exten
Post-mod Post-mod Post-mod	noun group noun group noun group	wings [[to fly with]], claws [[to kill their food]] and a beak [[to eat]]. (35. Maisie)	attribute: possessed (poss:pr/carr :p'r)	para exten para exten para exten
Adverbial groups				
One group				
Head only		Penguins are the ones [[that live in the Antarctic [[where the snow is]]]]		
Pre-mod				
Post-mod				
Two+ groups				

6.1.3.3 Circumstances (Year 3 Reports)

6.1.3.3.1 Functional types of Circumstances (Year 3 Reports)

Table 6. 1-26 Types of Circumstances (Year 3 Reports)

A	B	C	D	E	F
Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive					
accomp: comitative					
angle: source					
angle: viewpoint					
cause: behalf	1		1	3	3
cause: purpose					
cause: reason					
contingency: concession					
contingency: condition					
contingency: default					
extent: distance	1		1	3.4	2.9
extent: duration					
extent: frequency					
location: place	17	4	21	58.6	61.8
location: time	5		5	17.2	14.7
manner: comparison	2		2	6.9	5.9
manner: degree					
manner: means	1	1	2	3.4	5.9
manner: quality					
matter	2		2	6.9	5.9
role: guise					
role: product					
Total	29	5	34	100	100
%	85	15	100		
Count of different types of Circumstances used	7	2	7		

Types of Circumstances are given in Table 6. 1-26, divided into ranking and other clauses. In total 34 Circumstances are used, 5 in embedded clauses. Most frequent is location:place (17 occurrences in ranking clauses, and 5 in embedded, making 61.8%). Next most frequent is location:time (5 usages or 14.7%, all in ranking clauses). Other uses of Circumstances are in ones and twos: manner:comparison (2), matter (2), cause:benefit (1), extent:distance (1) and manner:means (1). Of the 22 Circumstance types listed, 7 are used in these Year 3 Reports.

6.1.3.3.2 Realisation – form of Circumstances (Year 3 Reports)

Table 6. 1-27 Summary of forms taken by Circumstances (Year 3 Reports)

B	C	D	E	F	G	H
Circumstances in ranking clauses			Circumstances in embedded clauses			All
Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
27		2	4		1	34
29			5			

The forms taken by the 34 Circumstances identified are listed in Table 6. 1-27. Prepositional phrase dominate, with 27 in ranking clauses and 4 in other clauses of the total of 30. Next come adverbial groups, with 2 in ranking clauses and 1 in other clauses. There are no groups used.

Table 6. 1-28 Detail of forms taken by Circumstances (Year 3 Reports)

A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	24			4			28
Single function (Head only)	7			1			8
Pre-mod + Head (no post-mod)	16			2			18
Post-mod (may be pre-mod)	1			1			2
Two+ groups	3						3
Adverbial groups							
One group			2			1	3
Single function (Head only)			2			1	3
Pre-mod + Head (no post-mod)							
Post-mod (may be pre-mod)							
Two+ groups							
Summary of forms taken by Circumstances							
Prepositional phrases	27			4			31
Noun groups							
Adverbial groups			2			1	3
Total all	29			5			34

In Table 6. 1-28 we see of that the 31 nominal groups involved in Circumstances, 28 are constructed using a single group and 3 involve a group complex of two or more

groups. The use of pre-modification (18) is favoured over the bare form (8). Post-modification is also used (2). Adverbial groups are limited to group simplexes, using Head alone (3).

Table 6. 1-29 Examples of forms taken by Circumstances (Year 3 Reports)

Feature	Form	Example	Circumstance type	Note
Prepositional phrases / Nominal groups				
One group				
Head only (including clause as Head)	preposition plus noun group	to humans (35. Maisie)	manner: comparison	
	preposition plus noun group	in eggs (36. Mike)	location: place	
With Pre-mod	preposition plus noun group	at a birthday (34. Jasper)	location: place	
	preposition plus noun group	to 15 cm	extent: distance	
	preposition plus noun group	about all the kinds of birds in the world (36. Mike)	matter	Focus – selecting
With Post-mod qualifying phrase	preposition plus noun group	about all the kinds of birds in the world (36. Mike)	matter	Qualifier – phrase
Two+ groups				Taxis/LS at group rank
With Pre-mod With Pre-mod	preposition plus noun group complex	at the persons house or a special place out, (34. Jasper)	location: place	para exten
With Post-mod With Post-mod	preposition plus noun group complex	on the day [[they were born]] or another date [close to the birthday]. (34. Jasper)	location: time	para exten
Head only Head only With Pre-mod	preposition plus noun group complex	in water, snow and many more places. (35. Maisie)	location: place	para exten para exten
Adverbial Groups				
One group				
Head only	adv group	better (33. Annie)	manner: comparison	
	adv group	anywhere (34. Jasper)	location: place	
Pre-mod				
Post-mod				
Two+ groups				

6.1.3.4 The Nominal Group – a special case (Year 3 Reports)

In this section are collected together the nominal groups from the Participants and Circumstances, from both ranking and embedded clauses, from the Year 3 Reports.

Table 6. 1-30 Nominal groups (Year 3 Reports)

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	71	10	13	94	38.6	51.1
Head=Thing	59	9	12	80	32.1	43.5
Head≠Thing, elliptical	7		1	8	3.8	4.3
Head≠Thing, Epithet	5	1		6	2.7	3.3
Pre-mod + Head only	54	5	16	75	29.3	40.8
Head=Thing	54	5	15	74	29.3	40.2
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus			1	1		0.5
Post-modification	8	1	6	15	4.3	8.2
with qualifying phrase	2		2	4	1.1	2.2
with qualifying clause	6	1	4	11	3.3	6.0
with multiple qualifiers						
Total	133	16	35	184	72.3	100

Looking at the ‘big picture’ presented in Table 6. 1-30, in Year 3 Reports, there are 184 instances of nominal groups (Column E). Nominal groups consisting of Head only is the form most used, with 51.1% of instances. A smaller percentage, 40.8%, consists of the Head with some pre-modification, and 8.2% have a post-modifier (Column G).

Now we will look briefly at the three individual sections of Table 6. 1-30. Firstly, of the Head-only nominal groups, by far the most are conventional noun groups, where the Head conflates with Thing (80 from 94, or 85.1%). Some have the Head conflated with an element other than an Epithet or Classifier, a non-lexical entity (8 of 94 or 8.5%) and some are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet or Classifier, both lexical entities (6 of 94, or 6.3%). Secondly, of the nominal groups consisting of pre-modifier + Head, again by far the most have Head conflated with Thing (74 of 75, or 98.7%). The only other instance of pre-modification +Head involves the use of focus (an extended

numerative) – (1 of 75, or 1.3%). Thirdly, in the 8.2% of clauses that contain a post-modifying element, most (11 of 15 or 73.3%)) contain a qualifying clause and some a qualifying phrase (4 of 15 or 26.7%). There are no instances of a nominal group containing multiple qualifiers.

Examples of nominal groups appear in Table 6. 1-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the left-most position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 6. 1-31 Examples of nominal groups (Year 3 Reports)

Total	% Total	Feature	Example		Notes/type
94	51.1	single function – Head only			
80	43.5	Head=Thing	pronouns (37.5%); common nouns (57.5%); proper nouns (5.0%). (Some multi-word items e.g. <i>Pass the parcel</i> (name of game) & word complexes e.g. <i>food and drinks</i> .) (Personal pronouns 30.0%.)		
8	4.3	Head≠Thing, elliptical	most <i>in</i> most like to fly around (36. Mike)		numerative only
6	3.3	Head≠Thing, Epithet	Epithet only (4/6) weak <i>in</i> its jaw are weak (33. Annie)		
			modification in Epithet (1/6) : very cold <i>in</i> it is very cold (35. Maisie)		modification in Epithet
			Classifier only (1/6): Australian <i>in</i> Cockatoos are Australian		Classifier only
75	40.8	Pre-mod + Head only			
74	40.2	Head=Thing	SEE TABLE BELOW		
		Head≠Thing, elliptical			
		Head≠Thing, Epithet			
1	0.5	Head≠Thing, focus	all the kinds of birds in the world (36. Mike)		Focus-selecting
15	8.2	Post-modification			
4	2.2	with qualifying phrase	Head only Head≠Thing, elliptical	All about them (36. Mike)	
11	6.0	with qualifying clause	with Pre-mod Head=Thing	special ants [[that only live in arid inland]] (33. Annie)	relative clause as qualifier
			with Pre-mod Head=Thing	just a way [[to celebrate]] (34. Jasper)	non-finite clause as qualifier
			with Pre-mod Head=Thing	the day [[they were born]] (34. Jasper)	relative clause as qualifier
		with multiple qualifiers			
184	100	Total			

Having looked at the wide scope of the nominal group in Year 3 Reports, let us look now at the pre-modifying element, especially the one row in Table 6. 1-30 that summarises much and should not be passed over without elaboration, highlighted in the re-produced table below:

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	71	10	13	94	38.6	51.1
Head=Thing	59	9	12	80	32.1	43.5
Head≠Thing, elliptical	7		1	8	3.8	4.3
Head≠Thing, Epithet	5	1		6	2.7	3.3
Pre-mod + Head only	54	5	16	75	29.3	40.8
Head=Thing	54	5	15	74	29.3	40.2
Head≠Thing, elliptical						
Head≠Thing, Epithet						
Head≠Thing, focus			1	1		0.5
Post-modification	8	1	6	15	4.3	8.2
with qualifying phrase	2		2	4	1.1	2.2
with qualifying clause	6	1	4	11	3.3	6.0
with multiple qualifiers						
Total	133	16	35	184	72.3	100

The highlighted row contains uses of the pre-modifying element in the nominal group where the Head is in phase with the Thing (i.e., in our data, is not elliptical, is not an Epithet and does not involve the use of the extended numerative (IFG3 p.333) known as Focus (DFG p.170); these belong to the rows following and examples have been included in Table 6. 1-31). The range of configurations of pre-modifying elements was examined across all the texts in the data set and a list compiled of those used. This list of 25 different configurations is presented in Table 6.1-32, with data and examples for Year 3 Reports.

Table 6. 1-32 Pre-modification in the nominal group (Year 3 Reports)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing				
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing	1	1.4	or another date [close to the birthday (34. Jasper)	
DeicticNumerativeEpithetThing				
DeicticNumerativeThing	1	1.4	a few months (36. Mike)	
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing				
DeicticEpithetEpithetEpithetThing				
DeicticEpithetEpithetThing	1	1.4	a long stiky tounge (33. Annie)	
DeicticEpithetThing	2	2.7	a good smell (33. Annie)	a special place (34. Jasper)
DeicticClassifierClassifierThing				
DeicticClassifierThing	1	1.4	the mother and father bird (35. Maisie)	
DeicticThing	48	64.9	some food and drink (34. Jasper)	their skin (35. Maisie)
Deictic2Thing				
Deictic2ClassifierThing	1	1.4	different body parts (35. Maisie)	
NumerativeClassifierThing				
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing	1	1.4	ten or eight rubbery-shelled eggs (33. Annie)	
NumerativeThing	11	14.9	15 cm (33. Annie)	Some birds (35. Maisie)
EpithetClassifierThing				
EpithetEpithetThing				
EpithetThing	4	5.4	arid inland (33. Annie)	high buildings (35. Maisie)
ClassifierClassifierThing				
ClassifierThing	3	4.1	Mother birds (35. Maisie)	webbed feet (36. Mike)
25 Total	74	100		
Count of different configurations used	11			

Of the twenty-five available patterns, 11 were used (44%) in Year 3 Reports. Of the 74 instances of pre-modification in the nominal group, the most used configuration is, unsurprisingly, DeicticThing (48 of 74, or 64.9%). Next most common is NumerativeThing (11 of 74, or 14.9%) Usage drops then, to EpithetThing (4 or 5.4%), followed by ClassifierThing (3 of 74, or 4.1%). Two (2) instances use DeicticEpithetThing (2.7%), then are single usages (1.4% each) of the following: DeicticDeictic2Thing, DeicticNumerativeThing, DeicticEpithetEpithetThing, DeicticClassifierThing, Deictic2ClassifierThing, and NumerativeEpithetThing.

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 8 of the 74 (10.8%) involve the use of Epithets, one instance using two, in 4 configurations. Five (5) nominal groups use a Classifier (6.7%), using 3 configurations.

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres, where the field often involves information about general phenomena rather than personal or specific phenomena or entities. In the case of the Year 3 Reports, 19 (or 25.7%) noun groups do not use a deictic.

There are any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

We now turn to look at the comparable features in Year 4 Reports.

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6.2 Findings: Year 4 Reports

6.2.1 The Year 4 Reports

6.2.1.1 Text 37. A Sheild[sic] Bug, by Janet

Table 6. 2-1 Text 37. A Sheild[sic] Bug (Janet, 4/R)

37. A Sheild[sic] Bug (Janet, 4/R)	Stages
A Sheild[sic] Bug is an insect. A Sheild[sic] Bug is one of the most harmless beetle bugs.	General classification
<p>Appearance Sheild[sic] Bugs have four wings. When people look at sheild bug they are ether[sic] green or brown. Sheild Bugs have long, thick, beaks that are held between there[sic] legs. Sheild bugs are brightly coloured (and sometimes can not be brightly coloured.) Sheild bugs also have conspicuous marks which means that stand out really well. Sheild bugs are 5 – 35 mm in length.</p> <p>Habitat Sheild bugs are found in cabbage crops sometimes. Sheild bugs can also be found in flowers or organic vegetable[sic] gardens. Sheild bugs are sometimes a challenge to find but can also be easy to find. Some sheild bugs hide under bark, leaves and in trees.</p> <p>Diet Sheild Bugs are mostly plant feeders which eat organic vegetables. Some sheild bugs eat cabbage and even cotton. Sheild bugs mostly eat in spring because most of the vegetables blossom[sic]. Some sheild bugs are eat[sic] meat. from insect some sheild bugs eat hawthorn berries. Shield bugs also feed on white beam and oak.</p> <p>Breeding Shield Bugs can lay up to 20-30 eggs at a time. The eggs are barrel shaped which can brake[sic] very easy. To keep the eggs safe the mother and father have turns guarding the eggs. When the baby Shield Bugs are born they try and hide so no animal can kill them.</p> <p>Interesting Facts There are many different kinds of shield bugs. The harlequin bug is a very beautiful bug and when they lay eggs they are brightly coloured. When shield Bugs are disturbed they let off[sic] fairly sweet odors from there[sic] glands in the thorax. To make shield bugs release an odor hold the in sect[sic] with your thumb and forefinger on the sides. To keep a shield bug alive in your classroom give them freshly cleaned green vegetables. To gather shield bugs use old pill bottles or small bottles. Hold the container with your left hand and tap on the container with your right hand.</p>	<p>Description <i>Physical features</i></p> <p><i>Habitat</i></p> <p><i>Diet</i></p> <p><i>Breeding</i></p> <p><i>Other interesting facts</i></p>

Table 6. 2-2 Text 37. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
29	14	15	47	4	0	199	325	4.2	6.9

6.2.1.2 Text 38. Koalas, by Joe

Table 6. 2-3 Text 38. Koalas (Joe, 4/R)

38. Koalas (Joe, 4/R)	Stages
Koalas are Mammals. They are mammals because they have their babies alive. They are also a Marsupial because they have a pouch to put their babies in.	General classification
Koalas have a round belly and they have lots of fur. Koalas have sharp claws so they can grip onto trees. They also have big ears. Koalas live in trees and the only kind of tree they like is gumtrees. Koalas only live in Australia because Australia is the only country that has gumtrees in it. Koalas love to eat gum leaves. Before they eat gum leaves off a tree they have to check leaves to see if they are poisoned or not. To check if they are poisoned they eat them. Koalas[sic] young are born alive. When they are born they put babies in their pouch and take them with it.	Description Physical features Habitat Diet Breeding

Table 6. 2-4 Text 38. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
13	4	9	26	3	0	74	139	2.8	5.3

6.2.1.3 Text 39. Cyclones, by Ned

Table 6. 2-5 Text 39. Cyclones (Ned, 4/R)

39. Cyclones (Ned, 4/R)	Stages
A cyclone is a type of serve[sic] spinning storm that occurs over the ocean near the tropics.	General classification
<p>Tropical cyclones have a wind speed greater than 119 kilometers per hour and they always start in the tropics. The word cyclone means turning wind with one eye.</p> <p>In stage zero more and more clouds continue to build up in the sky the sun is warming the water and if the heat in the water is 26 degrees or warmer a cyclone can occur.</p> <p>Then in stage one the low airpressure[sic] starts to pull the clouds in together and they rotate slowly in the sky. It's not a cyclone yet, but if the conditions are right it can become one!!!</p> <p>In stage three the clouds start to spin faster and they suck more water up into the eye and then it starts to move around and destroy house's[sic] and buildings.</p> <p>After that the cyclone heads for land and it loses It's[sic] power because it can't suck up anymore water. But before this happens it may destroy lives.</p> <p>The cyclone seasons in the southern hemisphere happens between November and May each year. Cyclones usally[sic] last for 2-3 days and after a cyclone hits it is usally a calm time before the cyclone starts spinning again.</p>	<p>Description Features</p> <p>Development 1</p> <p>Development 2</p> <p>Development 3</p> <p>Development 4</p> <p>Season Duration</p>

Table 6. 2-6 Text 39. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
11	3	8	27	1	0	105	212	3.9	7.9

6.2.1.4 Text 40. Information Report on Cicadas, Nobby

Table 6. 2-7 Text 40. Information Report on Cicadas (Nobby, 4/R)

40. Information Report on Cicadas (Nobby, 4/R)	Stages
Cicadas are insects with six legs and three main body parts. They are normally found in Australia in the summer. There is a lot of types of cicadas. The three main body parts are the head, the thorax and the abdomen.	General classification
<p>Description</p> <p>Cicadas have five eyes, two on the side of its head and three in the middle in the middle of the head. They get wings that look a little like butterflies but clear, only when and adult. They have uncommon body parts like the tymbal, the tympanum, restrem, operculum and much more! They have two tiny antennae as small as quarter of a cicada. They can be lots of colours such as red, yellow, green ect[sic]. A cicada is about 7cm long.</p> <p>[illus]</p> <p>Movement</p> <p>Adult cicadas can fly and crawl. Nymphs (when they hatch) dig underground and stay there for some years. Adult cicadas have six legs and nymphs too. The nymphs have little claws like lobsters. That is why people think baby cicadas (nymphs) are baby lobsters.</p> <p>Feeding Habits</p> <p>Baby cicadas (nymphs) suck the liquid in the roots of any plant. Adult cicadas suck the sap of tree branches with a small tube. They get the sap from any tree. They suck it straight away. They may go onto different trees.</p> <p>Breeding Habits</p> <p>When a male and a female cicada like each other, when the male does a song and the female likes it, the female may have babies! The female has a little sting at the end of its abdomen to put slits into trees and put the eggs inside. When the eggs hatch, the nymphs dig underground.</p> <p>[illus]</p> <p>Other Facts.</p> <p>The cherry-nose cicada looks like it has a cherry nose! There are three stages of a cicadas[sic] life. Eggs, a nymph and as adult. The cicadas[sic] ears are located on the sides of there[sic] abdomen.</p>	<p>Description</p> <p><i>Physical features</i></p> <p><i>Diet</i></p> <p><i>Breeding</i></p> <p><i>Other interesting facts</i></p>
<p>Books used</p> <p>Cicada Sing-Song</p> <p>Author Densey Clyne</p> <p>[illus]</p>	Reference list

Table 6. 2-8 Text 40. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
26	20	6	35	1	2	166	301	4.7	8.6

6.2.2 Sentence-level information (Year 4 Reports)

Table 6. 2-9 Overview (Year 4 Reports)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
37	29	14	15	47	4	0	199	325	4.2	6.9
38	13	4	9	26	3	0	74	139	2.8	5.3
39	11	3	8	27	1	0	105	212	3.9	7.9
40	26	20	6	35	1	2	166	301	4.7	8.6
Part B										
T	79	41	38	135	9	2	544	977		
Av	19.75	10.25	9.5	33.75	2.25	0.5	136	244.25	3.9	7.2

Texts 37-40 are the Year 4 Reports and Table 6. 2-9 presents the collective sentence level data. There are a total of 79 sentences, comprised of 135 ranking clauses, of which 41 are simplexes and 38 are complexes. Of these 135 ranking clauses, 11 contain embedded clauses – 9 contain simplexes and 2 contain complexes at this Year level. The ratio of total words (977) to lexical items (544) is a little over 1.8:1, and the average lexical density across the 4 texts (clauses÷lexical items) is 3.9. The mean length of each clause is 7.2 words.

While usage of simplex clauses and complex clauses in sentence construction varies among the texts – one uses substantially more simplexes than complexes where the other three favour complexes over simplexes – overall, the balance of use is roughly equal.

6.2.2.1 Sentence constituents (Year 4 Reports)

Table 6. 2-10 Sentences and clauses (Year 4 Reports)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no explicit dependency (simplex)	With paratactic dependency (complex)	With hypotactic dependency (complex)	With dependency of both types (complex)	Total nexuses
1	41	51.9	41				
2	25	31.6		9	16		25
3	8	10.1			3	5	16
4	5	6.3		1	1	3	15
5							
6							
7							
8							
Total	79	100	41	10	20	8	56
%			51.9	12.7	25.3	10.1	

In Table 6. 2-9, we see that the 79 sentences in the Year 4 Reports are made up of 41 clause simplexes and 38 clause complexes. In Table 6. 2-10 these bare figures are fleshed out. As is confirmed in Columns A to D of Table 6. 2-10, the most common number of clauses per sentence in the Year 4 Reports is one: there are 41 of these, comprising 51.9% of all sentences. (Column B). The next most common length is 2 clauses, (31.6%), followed by 3 clauses (10.1%), then 4 clauses (6.3%). In fact, 1-, 2-, 3- and 4- clause sentences are successively less common (Columns B, C).

48.1% of sentences are clause complexes. In these clause complexes, sentences containing only hypotactic relations (20 sentences) are more common than those containing only paratactic relations (10 sentences), and than clause complexes containing both types of relations (8 sentences). The longer sentences contain both types of relations. In this data set, nexuses total 56 (Column H).

Table 6. 2-11 Dependency relations between clauses (Year 4 Reports)

Nexus type	Count	% of relation type
Paratactic	21	37.5
Hypotactic	35	62.5
Total	56	

Taking into account both the sentences with a single type of relation and those with relations of both types, the total number of paratactic nexuses and the total number of hypotactic nexuses may be determined. The results are tabulated in Table 6. 2-11. It turns out hypotactic nexuses constitute 62.5% and paratactic nexuses 37.5% of the whole.

Table 6. 2-12 shows usage of the logico-semantic relations, expansion and projection.

Table 6. 2-12 Taxis/logico-semantic relations in clause complexes (Year 4 Reports)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification				
		description		4	3	1
	extension	addition: additive	18			
		addition: adversative	1			
		variation				
		alternation				
	enhancement	temporal	1	13	13	
		spatial				
		manner				
		cause		14	7	7
		conditional	1	4	4	
projection	locution idea	(speech)				
		(thought)				
Total			21	35	27	8

Column D of Table 6. 2-12 shows the 21 instances of parataxis. The clause complexes are *expanded* through *extension: addition* (18 additive and 1 adversative) and through two sub-types of enhancement – *enhancement: temporal* (1) and *:conditional* (1). There are no instances of paratactic *projection*.

Column E shows the 35 instances of hypotaxis. Two of the three main types of *expansion* are utilised: *elaboration: description* (4), *extension: addition* (6), and in *enhancement*, three sub-types – *:temporal* (13), *:cause* (14) and *:conditional* (4). There are no instances of hypotactic *projection*. The 35 hypotactic clause complexes employ dependent clauses of both finite (27) and non-finite (8) forms.

We now turn now from the make-up of sentences in terms of ranking clauses to the occurrences and placements of embedded clauses.

Table 6. 2-13 Dispersion and count of ranking clauses (Year 4 Reports)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	41	41	5	36
2	25	50	6	44
3	8	24		24
4	5	20		20
5				
6				
7				
8				
Total	79	135	11	124
%			8.1	91.9
Average per text	19.75	33.75	2.75	31

Table 6. 2-13 shows that, in sentences of any length (Columns A, B and C), the number of clauses that do not contain embedding (Column E) substantially exceed the number that do (Column D). Over the text-group as a whole, 124 clauses, or 91.9%, do not contain embedding; 11 (or 8.1%) do.

It is that 11 (or 8.1%) of ranking clauses that contain embedding that we are now interested in. We extend the analysis of Table 6. 2-13, explicating in the main, Column D of that table. Table 6. 2-14 tallies (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the functional constituent element of its host clause (Columns D and E).

Table 6. 2-14 Embedding in ranking clauses (Year 4 Reports)

A	B	C	D	E	F
Ranking clause contains/ Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
embedded clause/s as Qualifier in a nominal group	7	[[]Q	7		A cyclone is a type of serve spinning storm [[that occurs over the ocean near the tropics]]. (39. Ned)
		[[[]Q]Q			
		multiQ			
	1	[[//]Q	1		They get wings [[that look a little like butterflies // but {are} clear]], (40. Nobby)
		[[// //]Q			
		[[// // //]Q			
embedded clause/s as a whole nominal group	2	[]clH	2		... which means [[that {they} stand out really well.]] (37. Janet)
		[[[]Q]clH			
		multiclH			
	1	[[//]clH	1		That is [[why people think // baby cicadas (nymphs) are baby lobsters.]] (40. Nobby)
		[[// //]clH			
		[[// // //]clH			
		[[// []Q]clH			
		[[<<>>]clH			
both		mixed			
	11	Totals	11		
Summary					
Qualifier in a nominal group	8	72.7%	8		
Whole nominal group	3	27,3%	3		
Total	11	100%	11		
			100%		

In the Year 4 Reports, 11 of 135 clauses contain embedded clauses. Table 6. 2-14 shows 8 of the 11 instances being of the embedded clause acting as a Qualifier in a nominal group, denoted here with a final Q. All instances occur as a Participant. There are 3 instances where the whole nominal group is realised by an entire embedded clause. These three usages are all Participants, confirming that, as may be seen from Columns D and E, embedding occurs only in Participants.

Table 6. 2-15 below essentially provides a different way of looking at the data in Table 6. 2-14, deconstructing the complexity of the embedding, and providing examples of the clause forms.

Table 6. 2-15 Embedded clauses (Year 4 Reports)

A	B	C	D
Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
9	simplexes		9
9	[[]]	they have a pouch [[to put their babies in]]. (38. Joe)	9
	[[]]c (multiple in one clause)		
	[[]]el (multiple in one element/group)		
	[[e]] (with an embedded clause)		
	e[[]]Q (form of [[e]])		
2	complexes		4
2	[[// //]]	They get wings [[that look a little like butterflies // but {are} clear]]. (40. Nobby) That is [[why people think // baby cicadas (nymphs) are baby lobsters.]] (40. Nobby)	2 2
	[[// // //]]		
	[[// // [[]]]]		
	[[<<>>]] incl		
11	Total		13
Summary of complexity of embedded clauses			
simplexes	9	81.8%	Average per text: 2.25
complexes	2	18.2%	Average per text: 0.5
Totals	11	100%	Average per text: 2.75

Now we consider the embedded clauses in terms of complexity (Table 6. 2-15). All 9 of the simplexes are straightforward and occur in separate clauses. There are 2 instances of embedded clause complexes, which bring the total of embeddings to 11 (Column A). However, both of the complexes are composed of 2 clauses and this accounts for the total of 13 individual clauses that are embedded (Column D). Examples are given in Column C.

Table 6. 2-16 Detail of use of embedded clauses (Year 4 Reports)

A	B	C	D		E
Placement shorthand	How embedding manifests	Simplex/ individual clause count	Examples		
in_ngQ_(P)	as Qualifier in a nominal group in a Participant	8	Sheild Bugs have long, thick, beaks [[that are held between there legs.]] (37. Janet)	attribute: possessed (poss:pr/carr:p'r)	
			Sheild bugs are sometimes a challenge [[to find]] (37. Janet)	attribute	
			... because they have a pouch [[to put their babies in]]. (38. Joe)	attribute: possessed (poss:pr/carr:p'r)	
			... and the only kind of tree [[they like]] is gumtrees. (38. Joe)	value	
			... because Australia is the only country [[that has gumtrees in it]]. (38. Joe)	value	
			A cyclone is a type of serve spinning storm [[that occurs over the ocean near the tropics]]. (39. Ned)	value	
			Tropical cyclones have a wind speed [[greater than 119 kilometers per hour]] (39. Ned)	attribute: possessed (poss:pr/carr:p'r)	
			They get wings [[that look a little like butterflies // but clear]], ((40. Nobby))		
in_ngQ_(C)					
in_ngQ_(e)_(P)	as Qualifier in a nominal adjectival group in a Participant	1	... but can also be easy [[to find]]. (37. Janet)	attribute	
in_ngQ_(e)_(C)					
clH_(P)	as whole nominal group in a Participant	4	... which means [[that {they} stand out really well.]] (37. Janet)	value	
			The cherry-nose cicada looks like [[it has a cherry nose!]] (40. Nobby)	attribute (cir:pr)	
			That is [[why people think // baby cicadas (nymphs) are baby lobsters.]] (40. Nobby)	value	
clH_(C)					
in_XX_(P)					
in_XX_(C)					
	Total	13			
Summary of function of embedding and as Participant or Circumstance					
as Qualifier in a nominal group in a Participant		9			
as whole nominal group in a Participant		4			
as Qualifier in a nominal group in a Circumstance					
as whole nominal group in a Circumstance					
Total		13			

A final perspective on the embedded clauses is provided by Table 6. 2-16, which reveals how the embedding is manifested (Column B; shorthand in Column A) for each of the 13 instances of embedded clauses in Year 4 Reports. From Column C it may be seen 8 of the 13 (62%) present as *Qualifier in a nominal group in a participant*, in a straightforward noun group (in_ngQ_(P)); 4 or 31% are the *whole nominal group in a participant* (clH_(P)); and the remaining one (8%) appears as *Qualifier in a nominal adjectival group in a Participant* (in_ngQ_(e)_(P)). (Note, there are 5 other manifestations identified which do not occur in Year 4 Reports.) Column D gives examples.

6.2.2.2 General description (Year 4 Reports)

The Year 4 Reports have been characterised according to average length in terms of sentences (19.75) and individual ranking clauses (33.75) and by a simple word average (244) which has been divided into lexical (136) and, by calculation, grammatical (108) items. Lexical density has been calculated (3.9). The ranking clauses have been further described by average usage of clause-simplexes (10.25) and clause-complexes (9.5). The explicit interdependency relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 37.5% to 62.5%.

Embedded clause usage has been tallied from two perspectives: (i) number of clauses containing embedding and (ii) number of embedded clauses. The average per text for (i) is 2.75: clauses containing embedded simplexes (2.25) those with clause complexes (0.5). The average per text for (ii) is (2.75): embedded simplexes (2.25) and embedded complexes (0.5). When employed, embedded clauses are used both as qualifiers in a nominal group (72.7%) and as Whole nominal groups (27.3%). They are involved in (or as) Participants (100%) but not in (or as) Circumstances (0%).

In summary, in Table 6. 2-9, some general features of the Year 4 Reports are gathered together and summarised. The rest of the tables in Section 6.2.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of

analysis: a look at the Experiential elements of the texts (Section 6.2.3), looking first at the functional elements in a clause (Processes, 6.2.3.1; Participants, 0; Circumstances, 6.2.3.3), and then at the breakdown of the nominal group). Now let's look more closely at the functional constituents of the sentences/clauses.

6.2.3 Clause constituents – Transitivity (Year 4 Reports)

6.2.3.1 Processes (Year 4 Reports)

6.2.3.1.1 Functional types of Processes (Year 4 Reports)

Table 6. 2-17 Process types (Year 4 Reports)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	73	6	79	54.9	54.5
mental	4	2	6	3.0	4.1
mental: cognition	2	1	3	1.5	2.1
mental: desideration		1	1		0.7
mental: emotion	2		2	1.5	1.4
mental: perception					
relational	52	4	56	39.1	38.6
R attrib: intens	27	1	28	20.3	19.3
R attrib: circ	1		1	0.8	0.7
R attrib: poss	16	2	18	12.0	12.4
R id: intens	8	1	9	6.0	6.2
R id: circ					
R id: poss					
Subtotal(principal)	129	12	141	97.0	97.2
Subsidiary					
behavioural					
verbal	1		1	0.8	0.7
existential	3		3	2.3	2.1
Subtotal(subsidiary)	4		4	3.0	2.8
Total	133	12	145	100	100
%	91.7	8.3	100		
Count of different Process types used	5	3	5		

We now turn to Transitivity and Process types, as set out in Table 6. 2-17. To take in the ‘big picture’ first, it is useful to start at the second and third last rows. Here we see there are 133 ranking clauses and 12 non-ranking clauses, making a total of 145; in terms of proportions, ranking clauses make up 91.7% of the clauses and non-ranking 8.3%.

Of the principal ranking Processes, material are the most common (73), followed by relational (52). Mental are rare at (4). The subsidiary Processes provide only 4 instances, 3 existential and 1 verbal processes.

Within the relational Processes in ranking clauses, there is a heavy reliance on attributive processes: *attributive intensive processes* (27) are used most, followed by *attributive possessive* (16) and *attributive circumstantial* (1). In contrast, identifying processes are relatively few: *identifying intensive* (8). There are four (4) embedded instances, *attributive possessive* (2), and one each of *attributive intensive* (1), and *identifying intensive* (1). With respect to mental Processes, the order of frequency of appearance in ranking clauses is *cognition* (2) and *emotion* (2); in non-ranking clauses, *cognition* (1) and *desideration* (1).

Comparing with Column C, there are far more ranking clauses, 133, than embedded clauses, 12. The embedded clauses are distributed in the same pattern as the ranking clauses – material (6) to relational (4) to mental (2). There are no subsidiary embedded clauses.

The combination of the ranking and embedded clauses is given in Columns D and F of Table 6. 2-17. The effect of the embedded clauses maintains the dominance of the material Processes observed in the ranking clauses, with more than half (54.5%) of the Process types being material. Next most represented are the relational Processes (38.6%), then come mental Processes (4.1%). Subsidiary Processes make up the remainder (2.8%). In approximate terms, half the Processes are material and four fifths relational.

Across clause types, the frequency of use of types of Processes is:

material	79	(54.5%)
relational	56	(38.6%)
mental	6	(4.1%)
existential	3	(2.1%)
verbal	1	(0.7%)
behavioural	0	(0%)
Total	145	(100%)

6.2.3.1.2 Realisation – form of Processes (Year 4 Reports)

Table 6. 2-18 Process form (Year 4 Reports)

A	B	C	D	E	F
Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
A Complexity:					
Verbal group simplexes	109	12	121	82.0	83.4
Verbal group complexes	24		24	18.0	16.6
Total	133	12	145	100	100
B Other features:					
Phrasal verbs	8		8		
Modal finites	15		15		
Modal adjuncts	12		12		

Whether in ranking or non-ranking clauses, verbal group simplexes (121) greatly outnumber verbal group complexes (24) (Table 6. 2-18). In total, simplexes are 4 times more common than complexes (Column F). Other features, in order of frequency in ranking clauses (Column B), are modal finites (15) and modal adjuncts (12) and phrasal verbs (8); the same features do not appear in non-ranking clauses (Column C).

Table 6. 2-19 complements Table 6. 2-18 by explicating the types of complexity found in the verbal group complexes, and Table 6. 2-20 collates instances found in the texts.

Table 6. 2-19 Verb complexing summary (Year 4 Reports)

A	B	C	D	E	F
Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis	3		3	12.5	12.5
expansion elaboration					
expansion extension	3		3	12.5	12.5
expansion enhancement					
projection not applicable					
Hypotaxis	20		20	83.3	83.3
expansion elaboration	10		10	41.7	41.7
expansion extension	8		8	33.3	33.3
expansion enhancement	1		1	4.2	4.2
projection	1		1	4.2	4.2
Multiple complexing	1		1	4.2	4.2
Total	24		24	100	100

From Table 6. 2-19 it is evident that hypotaxis is used much more widely than parataxis. All 3 examples of parataxis involve *expansion: extension*. The examples of hypotaxis were spread over *expansion: elaboration* (10), *expansion: extension* (9), *expansion: enhancement* (1) and *projection* (1). It is interesting to note that, both within parataxis and hypotaxis, *expansion: extension* features prominently. All 25 instances are set out in Table 6. 2-20.

Table 6. 2-20 Instances of complexing in the verb (Year 4 Reports)

Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis	3			
expansion elaboration				
expansion extension	3	they try and hide (37. Janet)	material	and or
		.. if they are poisoned or not . (38. Joe)	R attrib: intens	
		Adult cicadas can fly and crawl. (40. Nobby)	material	
expansion enhancement				
projection				
Hypotaxis	20			
expansion elaboration	10	In stage zero more and more clouds continue to build up in the sky (39. Ned)	material	general: keep
		Then in stage one the low airpressure starts to pull the clouds in together (39. Ned)	material	general: start
		In stage three the clouds start to spin faster (39. Ned)	material	
		and then it starts to move around (39. Ned)	material	
		before the cyclone starts spinning again. (39. Ned)	material	
		long, thick, beaks [[that are held between there legs.]] (37. Janet)	material[[]]	passive elab
		Sheild bugs are found in cabbage crops sometimes. (37. Janet)	material	
		When shield Bugs are disturbed (37. Janet)	material	
		They are normally found in Australia in the summer. (40. Nobby)	material	
		The cicadas ears are located on the sides of there abdomen. (40. Nobby)	material	
expansion extension	8	but can also be easy [[to find]]. (37. Janet)	R attrib: intens	general: can
		Sheild Bugs can lay up to 20-30 eggs at a time. (37. Janet)	material	
		which can brake very easy. (37. Janet)	material	
		so no animal can kill them. (37. Janet)	material	
		so they can grip onto trees. (38. Joe)	material	
		and<<>>a cyclone can occur . (39. Ned)	material	
		but <<>> it can become one!!! (39. Ned)	R id: intens	
		They can be lots of colours such as red, yellow, green ect. (40. Nobby)	R attrib: intens	
expansion enhancement	1	To make shield bugs release an odor (37. Janet)	material	caus mod agency hi
projection	1	Koalas love to eat gum leaves. (38. Joe)	material	proposal: idea want
Multiple	1	Sheild bugs can also be found in flowers or organic vegetable gardens. (37. Janet)	material	general extension: can / passive elab
Total	24			

6.2.3.2 Participants (Year 4 Reports)

6.2.3.2.1 Functional types of Participants (Year 4 Reports)

Participant roles are set out in Table 6. 2-21. The numbers in ranking clauses are set out in Column C, non-ranking clauses in Column D, and the total in Column E. Column C as a ratio with the total ranking clauses appears in Column F and as a ratio with the total clauses, ranking and non-ranking, appears in Column G.

Table 6. 2-21 Participant roles (Year 4 Reports)

A	B	C	D	E	F	G
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor	54	2	56	24.8	24.0
	goal	43	2	45	19.7	19.3
	<i>oblique</i> recipient	1		1	0.5	0.4
	client					
	scope	3		3	1.4	1.3
	initiator					
	attribute: depictive	2		2	0.9	0.9
	attribute: resultative	2		2	0.9	0.9
mental	senser	2	2	4	0.9	1.7
	phenom	2		2	0.9	0.9
	<i>oblique</i> inducer					
relational: attrib	carrier	43	3	46	19.7	19.7
	attribute	44	4	48	20.2	20.6
R attrib: intens	carrier	24	1	25	11.0	10.7
	attribute	26	2	28	11.9	12.0
R attrib: circ	carrier (cir:att)	1		1	0.5	0.4
	attribute (cir:att)	1		1	0.5	0.4
	carrier (cir:pr)	1		1	0.5	0.4
	attribute (cir:pr)	1		1	0.5	0.4
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	17	2	19	7.8	8.2
	attribute: possessed(poss:pr/carr:p'r)	16	2	18	7.3	7.7
	carrier: possessed(poss:pr/carr:p'd)					
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary					
relational: ident	token	8	1	9	3.7	3.9
	value	9	1	10	4.1	4.3
R id: intens	token	8	1	9	3.7	3.9
	value	9	1	10	4.1	4.3
R id: circ	token(circ)					
	value(circ)					
R id: poss	token(poss)					
	value(poss)					

<i>oblique</i>	assigner					
behavioural	behave					
<i>oblique</i>	behaviour					
	phenomenon(b)					
verbal	sayer	1		1	0.5	0.4
	receiver					
<i>oblique</i>	verbiage	1		1	0.5	0.4
	target					
existential	existent	3		3	1.4	1.3
	Total	218	15	233	100	100
	Count of different Participant roles used	15	7	15		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, recipient, attribute; initiator	105	4	109	48.2	46.8
mental	sensor, phenomenon; inducer	4	2	6	1.8	2.6
relational		104	9	113	47.7	48.5
attribution identification	carrier, attribute, beneficiary, attributor	87	7	94	39.9	40.3
	token, value; assigner	17	2	19	7.8	8.2
behavioural	behaviour; phenomenon(b)					
verbal	sayer, receiver; verbiage, target	2		2	0.9	0.9
existential	existent	3		3	1.4	1.3
		218	15	233	100	100

The main Participant roles are taken by those that are directly involved with the Process in descending order of frequency of use.

	Processes %	Participants %
material	54.5	48.6
relational	38.6	48.5
mental	4.1	2.6
verbal	2.1	0.9
existential	0.7	1.3
behavioural	0	0
Total	100	100

We are interested in the more obliquely involved Participants, and our observations will revolve around those.

Table 6. 2-22 collates information about the use of the indirectly involved Participants that are counted in Table 6. 2-21. Column A again sections the table according to Process type: material, mental, relational, behavioural, verbal,

existential, and relational Processes here are again separated into relation-type (attributive or identifying). Column B again lists Participant roles associated with the Process types in Column A, this time separating them into directly and obliquely involved types. Columns C and D record the usage. This allows a window into where different Year group texts are broadening the meaning in their clauses through an increased use of oblique Participant roles.

Table 6. 2-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 4 Reports)

Different Participant roles used in Year 4 Reports						
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	(i) direct	(ii) oblique	Total			
material	2	6	8	2	4	6
mental	2	1	3	2		2
relational	4	3	7	4		4
attributive	2	2	4	2		2
identifying	2	1	3	2		2
behavioural	1	2	3			
verbal	2	2	4	1	1	2
existential	1	0	1	1	0	1
Total	12	14	26	10	5	15

In Table 6. 2-22, Column C echoes exactly B(i), showing that those Participant roles that are directly related to the process types are all used in the Year 4 Reports. This accounts for 12 of the Participant roles used. The remaining 5 are used as per Column D, which shows that the material clauses employ 4 Participants that are obliquely involved, and in verbal clauses there is use of one oblique Participant role.

6.2.3.2.2 Realisation – form of Participants (Year 4 Reports)

Table 6. 2-23 Summary of forms taken by Participants (Year 4 Reports)

B	C	D	E	F	G	H	I	J	K	L
Participants in ranking clauses					Participants in embedded clauses					Both
Nominal group			Prepositional phrase	Adverbial group	Nominal group			Prepositional phrase	Adverbial group	Total
noun group	adjectival group	clause			noun group	adjectival group	clause			
196	16	4	2		14	1				233
216					15					
218					15					

The Year 4 Reports do not surprise in the realisation of their Participants – a majority are nominal groups (216 in ranking clauses, and 15 in embedded clauses, making 99%). Prepositional phrases are used 2 times (1%), and adverbial groups not at all.

We can now distinguish between the types of nominal groups employed. The most straightforward realisation of Participants is of course the noun group – the most common of the nominal group types – and this too is reflected in the Year 4 Report texts, both in the ranking clauses, where 196 of the 216 nominal groups are noun groups, and in the non-ranking clauses, where 14 of 15 have this form; overall, 210 of 233 forms fall in this category – 90.1%. Second by frequency are adjectival groups (16 in ranking clauses and 1 in non-ranking clauses = 17 of 233), constituting 7.3% of the Participants in all clauses. Whole clauses make up 4 of the 233 Participants (1.7%).

Table 6. 2-24 Detail of forms taken by Participants (Year 4 Reports)

A	B	C	D	E	F	G	H	I	J	K	L
	Participants in ranking clauses					Participants in embedded clauses					Both
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total
	noun group	adj. group	clause			noun group	adj. group	clause			
Nominal groups											
One group	184	16	4	2		13	1				220
Single function (Head only)	90	14	4			10	1				119
Pre-mod + Head (no post-mod)	78	1		2		3					84
Post-mod (may be pre-mod)	16	1							17		
Two+ groups	12					1					13
Adverbial groups											
One group											
Single function											
Pre-mod + Head											
Post-mod											
Two+ groups											
Summary of forms taken by Participants											
Noun groups	196					14					210
Adj. nominal groups		16					1				17
Clauses			4								4
Prepositional phrases				2							2
Adverbial groups											
Total all	218					15					233

Table 6. 2-23 is expanded into Table 6. 2-24, concentrating on the make-up of the groups. The most frequently used form for Participants involves one nominal group. Looking at that section, a majority contains group consisting of Head only (119 of 220 or 54.1%). Making up the numbers here are the noun groups with 90 in ranking clauses, 10 in embedded; adjectival nominal groups occur 14 times in ranking and 1 in embedded; clause-as-head occurs 4 times, all in ranking clauses. Next is usage of nominal groups that contain a pre-modifying function (84 of 220, or 38%, including 81 noun groups (78 ranking, 3 embedded), one adjectival group and two in a prepositional phrase). Nominal groups with a post-modifying function occur 17 times, including one adjectival group (or 7.7%).

Usage of more than one nominal group in a nominal group complex as Participant occurs 13 times, 12 in a ranking clause, and 1 embedded (representing 5.6% of the total Participants).

Altogether, there are two prepositional phrases used as Participants, 0.9% of total Participants, using nominal groups with a pre-modifier. There are no adverbial groups used as Participants.

To sum up the way that Participants in Year 4 Reports are realised, of the 233 in total, 210 are noun groups, 17 are adjectival groups, four are realised by a whole clause and two are prepositional phrases. There are no adverbial groups used as Participants.

Examples of the forms discussed through Table 6. 2-24 are presented in Table 6. 2-25. Included are representative examples of each form.

Table 6. 2-25 Examples of forms taken by Participants (Year 4 Reports)

Function feature	Form	Example	Participant role	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	adj group	poisoned (38. Joe)	attribute	
	adj group	barrel shaped (37. Janet)	attribute	
	noun group	nymphs (40. Nobby)	carrier: possessor	
	clause	[[that stand out really well.]] (37. Janet)	value	macro-phenom: Fact
	clause	[[why people think // baby cicadas (nymphs) are baby lobsters.]] (40. Nobby)	value	macro-thing: Wh cl
	clause	[[it has a cherry nose!]] (40. Nobby)	attribute (cir:pr)	macro-phenom: Fact
focus	noun group	the low airpressure (39. Ned)	actor	
	noun group	hawthorn berries (37. Janet)	goal	
	noun group	adult cicadas (40. Nobby)	actor	
	noun group	one of the most harmless beetle bugs. (37. Janet)	attribute	Focus – selecting
	noun group	most of the vegetables (37. Janet)	actor	Focus – selecting
	noun group	many different kinds of shield bugs. (37. Janet)	existent	Focus – selecting
	noun group	a type of serve spinning storm [[that occurs over the ocean near the tropics]]. (39. Ned)	value	Focus – classifying
	noun group	a lot of types of cicadas. (40. Nobby)	existent	Focus –

				classifying
	nominal	5 – 35 mm in length. (37. Janet)	attribute	Qualifier – phrase
	noun group	turning wind with one eye. (39. Ned)	value	Qualifier – phrase
	noun group	the heat in the water (39. Ned)	carrier	Qualifier – phrase
	noun group	The cyclone seasons in the southern hemisphere (39. Ned)	actor	Qualifier – phrase
	noun group	insects with six legs and three main body parts. (40. Nobby)	value	Qualifier – phrase
	noun group	two tiny antennae as small as quarter of a cicada. (40. Nobby)	attribute: possessed(poss:pr/car r:p'r)	Qualifier – phrase contains focus
	noun group	the liquid in the roots of any plant. (40. Nobby)	goal	Qualifier – phrase
	noun group	the sap of tree branches (40. Nobby)	goal	Qualifier – phrase
Post-mod	noun group	long, thick, beaks [[that are held (bee) between there legs.]] (37. Janet)	attribute: possessed(poss:pr/car r:p'r)	Qualifier – clause
	noun group	sometimes a challenge [[to find]] (37. Janet)	attribute	Qualifier – clause
	adjectival nom	easy [[to find]]. (37. Janet)	attribute	Qualifier – clause
	noun group	a pouch [[to put their babies in]]. (38. Joe)	attribute: possessed(poss:pr/car r:p'r)	Qualifier – clause
	noun group	the only kind of tree [[they like]] (38. Joe)	value	Qualifier – clause
	noun group	the only country [[that has gumtrees in it]]. (38. Joe)	value	Qualifier – clause
	noun group	a type of serve spinning storm [[that occurs over the ocean near the tropics]]. (39. Ned)	value	Qualifier – clause
	noun group	a wind speed [[greater than 119 kilometers per hour]] (39. Ned)	attribute: possessed(poss:pr/car r:p'r)	Qualifier – clause
	noun group	wings [[that look a little like butterflies but clear]], (40. Nobby)	attribute: possessed(poss:pr/car r:p'r)	Qualifier – clause
	noun group	Nymphs (when they hatch) (40. Nobby)	actor	Qualifier – clause
Two+ groups				Taxis/LS at group rank
Head only	noun group	cabbage and even cotton. (37. Janet)	goal	para exten
Head only	noun group	white beam and oak. (37. Janet)	goal	para exten
Pre-mod	noun group	old pill bottles or small bottles. (37. Janet)	goal	para exten
Pre-mod	noun group	The word cyclone (39. Ned)	token	para elab
Pre-mod	noun group	26 degrees or warmer (39. Ned)	attribute	para exten
Head only	adj gp			

Pre-mod Pre-mod Pre-mod	noun group noun group noun group	the head, the thorax and the abdomen. (40. Nobby)	attribute	para exten
Pre-mod group complex Post-mod Post-mod	noun group group complex	five eyes, two on the side of its head and three in the middle in the middle of the head. (40. Nobby)	attribute: possessed(poss:pr/car r:p'r)	para elab para exten
Pre-mod (Pre-mod Pre-mod Head only Head only	noun group with group complex in qualifier	uncommon body parts like the tymbal, the tympanum, restrem, operculum and much more! (40. Nobby)	attribute: possessed(poss:pr/car r:p'r)	hyp elab [para exten para exten para exten para exten]
Pre-mod Head only Head only Head only Head only	noun group with group complex in qualifier	lots of colours such as red, yellow, green ect. (40. Nobby)	attribute	hyp elab [para exten para exten para exten]
Pre-mod Head only	noun group noun group	Baby cicadas (nymphs) (40. Nobby)	actor	para elab
Pre-mod	noun group	a male and a female cicada (40. Nobby)	senser	para exten
Pre-mod group complex ..Head only ..Pre-mod ..Head only (in a prep phrase)	noun group group complex	three stages of a cicadas life. Eggs, a nymph and as adult. (40. Nobby)	existent	para elab ..para exten ..para exten
Adverbial groups				
One group				
Head only				
Pre-mod				
Post-mod				
Two+ groups				

6.2.3.3 Circumstances (Year 4 Reports)

6.2.3.3.1 Functional types of Circumstances (Year 4 Reports)

Table 6. 2-26 Types of Circumstances (Year 4 Reports)

A	B	C	D	E	F
Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive					
accomp: comitative	1		1	2.0	1.8
angle: source					
angle: viewpoint					
cause: behalf					
cause: purpose					
cause: reason		1	1		1.8
contingency: concession					
contingency: condition					
contingency: default					
extent: distance					
extent: duration					
extent: frequency					
location: place	27	4	31	54.0	55.4
location: time	13		13	26.0	23.2
manner: comparison	1		1	2.0	1.8
manner: degree		1	1		1.8
manner: means	4		4	8.0	7.1
manner: quality	4		4	8.0	7.1
matter					
role: guise					
role: product					
Total	50	6	56	100	100
%	89	11	100		
Count of different types of Circumstances used	6	3	8		

Types of Circumstances are shown in Table 6. 2-26, separated into ranking and other clauses. Altogether, 56 Circumstances are used in these texts, 6 in embedded clauses. In terms of frequency of occurrence, first place is held by location:place (31 occurrences, or 55.4%). Next most frequent is location:time (13 usages or 26.0%). Frequency drops after location, to manner:quality (4 or 7.1%), manner:means, (4 or 7.1%), accompaniment:comitative (1), cause:reason (1), manner:comparison (1) and Manner:degree (1). Of the 22 Circumstance types listed, these 8 are used in these

Year 4 Reports, with two (cause:reason and manner:degree) being used only in embedded clauses.

6.2.3.3.2 Realisation – form of Circumstances (Year 4 Reports)

Table 6. 2-27 Summary of forms taken by Circumstances (Year 4 Reports)

B	C	D	E	F	G	H
Circumstances in ranking clauses			Circumstances in embedded clauses			All
Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
36	2	12	3		2	55
50			6			

The forms taken by the 55 Circumstances identified are listed in Table 6. 2-27. Prepositional phrase dominate, with 36 in ranking clauses and 3 in embedded clauses of the total of 39. Next come adverbial groups, with 12 in ranking clauses and 2 in other clauses. To complete the picture, there are 2 noun groups, both in ranking clauses.

Table 6. 2-28 Detail of forms taken by Circumstances (Year 4 Reports)

Table 6: 2-28 Detail of forms taken by Circumstances (Year 4 Reports)							
A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	34	2		3			39
Single function (Head only)	13	1		1			15
Pre-mod + Head (no post-mod)	19	1		1			21
Post-mod (may be pre-mod)	2			1			3
Two+ groups	2						2
Adverbial groups							
One group			12			2	14
Single function (Head only)			12			2	14
Pre-mod + Head (no post-mod)							
Post-mod (may be pre-mod)							
Two+ groups							
Summary of forms taken by Circumstances							
Prepositional phrases	36			3			39
Noun groups	2						2
Adverbial groups			12			2	14
Total all	50			5			55

In Table 6. 2-28 we see of that the 42 nominal groups involved in Circumstances, 39 are constructed using a single group and 3 involve a group complex of two or more groups. The use of pre-modification (21) is favoured over the bare form (15). Post-modification is also used (3). Adverbial groups are limited to group simplexes, using Head alone (14).

Table 6. 2-29 Examples of forms taken by Circumstances (Year 4 Reports)

Feature	Form	Example	Circumstance type	Note
Prepositional phrases / Nominal groups				
One group				
Head only (including clause as Head)	preposition plus noun group	with it <i>in</i> and take them with it	accomp: comitative	
With Pre-mod	preposition plus noun group	with a small tube (40. Nobby)	manner: means	
	preposition plus noun group	onto different trees (40. Nobby)	location: place	
	preposition plus noun group	at the end of its abdomen (40. Nobby)	location: place	Focus – perspective
	preposition plus noun group	on the sides of there abdomen. (40. Nobby)	location: place	Focus – perspective
With Post- mod qualifying phrase	preposition plus noun group	from there glands in the thorax. (37. Janet)	location: place	Qualifier – phrase
	preposition plus noun group	with your thumb and forefinger on the sides. (37. Janet)	manner: means	Qualifier – phrase
Two+ groups				Taxis/LS at group rank
Head only With Pre-mod	preposition plus noun group complex	in flowers or organic vegetable gardens. (37. Janet)	location: place	para exten
Head only Head only	preposition plus noun group complex	between November and May (39. Ned)	location: time	para exten
Head only Head only Head only	group complex: prep phrase noun group prep phrase	under bark, leaves and in trees. (37. Janet)	location: place	para exten para exten
Adverbial Groups				
One group				
Head only		sometimes (37. Janet)	location: time	
		slowly (39. Ned)	manner: quality	
		underground (40. Nobby)	location: place	
Pre-mod				
Post-mod				
Two+ groups				

6.2.3.4 The Nominal Group – a special case (Year 4 Reports)

In this section are collected together the nominal groups from the Participants and Circumstances, from both ranking and embedded clauses, from the Year 4 Reports.

Table 6. 2-30 Nominal groups (Year 4 Reports)

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	119	13	22	154	36.2	46.8
Head=Thing	102	12	17	131	31.0	39.8
Head≠Thing, elliptical	2		3	5	0.6	1.5
Head≠Thing, Epithet	15	1	2	18	4.6	5.5
Pre-mod + Head only	101	4	48	153	30.7	46.5
Head=Thing	94	4	40	138	28.6	41.9
Head≠Thing, elliptical						
Head≠Thing, Epithet	1		1	2	0.3	0.6
Head≠Thing, focus	6		7	13	1.8	4.0
Post-modification	19	1	2	22	5.8	6.7
with qualifying phrase	10	1	2	13	3.0	4.0
with qualifying clause	9			9	2.7	2.7
with multiple qualifiers						
Total	239	18	72	329	72.6	100

Looking at the ‘big picture’ presented in Table 6. 2-30, in Year 4 Reports, there are 329 instances of nominal groups (Column E). Nominal groups consisting of Head only is the form most used, with 46.8% of instances. A marginally smaller percentage, 46.5%, consists of the Head with some pre-modification, and 6.7% have a post-modifier (Column G).

Now we will look briefly at the three individual sections of Table 6. 2-30. Firstly, of the Head-only nominal groups, by far the most are conventional noun groups, where the Head conflates with Thing (131 from 154, or 85.0%). A few are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet or Classifier, both lexical entities (18 of 154, or 11.6%) and five have the Head conflated with an element other than an Epithet or Classifier, a non-lexical entity (5 of 154 or 3.2%). Secondly, of the nominal groups consisting of pre-modifier + Head,

again by far the most have Head conflated with Thing (138 of 153, or 90.2%). The next most common usage involves the use of focus (an extended numerative) – (13 of 153, or 8.5%). There are only two instances of pre-modification in an adjectival nominal group (2 of 153 or 1.3%). Thirdly, in the 6.7% of clauses that contain a post-modifying element, most (13 of 22 or 59.1%) contain a qualifying clause and some a qualifying phrase (9 of 22 or 40.9%). There are no instances of a nominal group containing multiple qualifiers.

Examples of nominal groups appear in Table 6. 2-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the left-most position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 6. 2-31 Examples of nominal groups (Year 4 Reports)

Total	% Total	Feature	Examples		Notes/type
154	46.8	single function – Head only			
131	39.8	Head=Thing	pronouns (42.7%); common nouns (55.7%); proper nouns (1.5%); (Some multi-word items e.g. <i>shield bugs</i> & word complexes e.g. <i>red, yellow, green ect</i>). (Personal pronouns 36.6%.)		
5	1.5	Head≠Thing, elliptical	two <i>in</i> two on the side of its head (40. Nobby)	numerative only	
			this <i>in</i> before this happens (39. Ned)	deictic only	
18	5.5	Head≠Thing, Epithet	warmer (39. Ned)		
			brightly coloured (37. Janet)	submodification in Epithet	
153	46.5	Pre-mod + Head only			
139	41.9	Head=Thing	SEE TABLE BELOW		
		Head≠Thing, elliptical			
2	0.6	Head≠Thing, Epithet or Classifier – lexical	ether green or brown (37. Janet)	Epithet as Head (para exten in Epithet?)	
			a male (40. Nobby)	Classifier as Head	
13	4.0	Head≠Thing, focus	one of the most harmless beetle bugs (37. Janet)	F – selecting submodification Epithet	
			a type of serve spinning storm [[that occurs over the ocean near the tropics]] Ned)	F – classifying	
			in the roots of any plant (40. Nobby)	F – partitive	
			at the end of its abdomen (40. Nobby)	F – perspective	
			three stages of a cicadas life (40. Nobby)	F – re-countung	
22	6.7	Post-modification			
13	4.0	with qualifying phrase	Head only Head=Thing	insects with six legs and three main body parts (40. Nobby)	
			with Pre-mod Head=Thing	there glands in the thorax.(37. Janet)	
			with Pre-mod Head=Thing	turning wind with one eye (39. Ned)	
			with Pre-mod Head=Thing	The cyclone seasons in the southern hemisphere (39. Ned)	
9	2.7	with qualifying clause	with Pre-mod Head=Thing	long, thick, beaks [[that are held between there legs.]] (37. Janet)	finite clause as qualifier
			with Pre-mod Head=Thing	a pouch [[to put their babies in]]. (38. Joe)	non-finite clause as qualifier
			Head only Head≠Thing, Epithet	easy [[to find]] (37. Janet)	non-finite clause as qualifier
		with multiple qualifiers			
329	100	Total			

Having looked at the wide scope of the nominal group in Year 4 Reports, let us look now at the pre-modifying element, especially the one row in Table 6. 2-30 that summarises much and should not be passed over without elaboration, highlighted in the re-produced table below:

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	119	13	22	154	36.2	46.8
Head=Thing	102	12	17	131	31.0	39.8
Head≠Thing, elliptical	2		3	5	0.6	1.5
Head≠Thing, Epithet	15	1	2	18	4.6	5.5
Pre-mod + Head only	101	4	48	153	30.7	46.5
Head=Thing	94	4	40	138	28.6	41.9
Head≠Thing, elliptical						
Head≠Thing, Epithet	1		1	2	0.3	0.6
Head≠Thing, focus	6		7	13	1.8	4.0
Post-modification	19	1	2	22	5.8	6.7
with qualifying phrase	10	1	2	13	3.0	4.0
with qualifying clause	9			9	2.7	2.7
with multiple qualifiers						
Total	239	18	72	329	72.6	100

The highlighted row contains uses of the pre-modifying element in the nominal group where the Head is in phase with the Thing (i.e., in our data, is not elliptical, is not an Epithet and does not involve the use of the extended numerative known as Focus; these belong to the rows following and examples have been included in Table 6. 2-31). The range of configurations of pre-modifying elements was examined across all the texts in the data set and a list compiled of those used. This list of 25 different configurations is presented in Table 5. 3-32, with data and examples for Year 4 Reports.

Table 6. 2-32 Pre-modification in the nominal group (Year 4 Reports)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing				
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing				
DeicticNumerativeEpithetThing				
DeicticNumerativeThing	1	0.7	any more water (39. Ned)	
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing	2	1.4	a wind speed greater than 119 kilometers per hour (39. Ned)	the low airpresure (39. Ned)
DeicticEpithetEpithetEpithetThing				
DeicticEpithetEpithetThing				
DeicticEpithetThing	7	5.1	a very beautiful bug (37. Janet)	a cherry nose (40. Nobby)
DeicticClassifierClassifierThing				
DeicticClassifierThing	8	5.8	The harlequin bug (37. Janet)	The cyclone seasons in the southern hemisphere (39. Ned)
DeicticThing	77	55.8	Koalas young (38. Joe)	a nymph (40. Nobby)
Deictic2Thing	1	0.7	different trees (40. Nobby)	
Deictic2ClassifierThing				
NumerativeClassifierThing				
NumerativeEpithetClassifierThing	2	1.4	three main body parts Nobby)	
NumerativeEpithetEpithetThing				
NumerativeEpithetThing	1	0.7	two tiny antennae as small as quarter of a cicada (40. Nobby)	
NumerativeThing	14	10.1	four wings (37. Janet)	more and more clouds (39. Ned)
EpithetClassifierThing	3	2.2	freshly cleaned green vegetables (37. Janet)	uncommon body parts (40. Nobby)
EpithetEpithetThing	1	0.7	long, thick, beaks [[that are held between there legs.]] (37. Janet)	
EpithetThing	7	5.1	conspicuous marks (37. Janet)	sharp claws (38. Joe)
ClassifierClassifierThing				
ClassifierThing	14	10.1	hawthorn berries (37. Janet)	Adult cicadas (40. Nobby)
25 Total	138	100		
Count of different configurations used	13			

Of the twenty-five available patterns, 13 were used (52%) in Year 4 Reports. Of the 139 instances of pre-modification in the nominal group, the most used configuration is, unsurprisingly, DeicticThing (77 of 138, or 55.8%). The next most common usage is shared between NumerativeThing (14 of 138, or 10.1%) and ClassifierThing (14 of

138, or 10.1%). Next most used is DeicticClassifierThing (8 or 5.8%). The next most common usage is shared between EpithetThing (7 or 5.1%), and DeicticEpithetThing (7 or 5.1%). Usage then drops to three EpithetClassifierThing (3 or 2.2%). Two (2) instances display DeicticEpithetClassifierThing (1.4%) and NumerativeEpithetClassifierThing (1.4%). Then come the single usages (0.7% each): of the following: DeicticNumerativeThing, Deictic2Thing, NumerativeEpithetThing and EpithetEpithetThing.

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 23 of the 138 (16.7%) involve the use of Epithets, one instance using two, using 7 configurations. Twenty-nine (29) nominal groups use a Classifier (21.0%), in 5 configurations.

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres, where the field often involves information about general phenomena rather than personal or specific phenomena or entities. In the case of the Year 4 Reports, 43 (or 31.1%) noun groups do not use a deictic.

There is any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

We now turn to look at the comparable features in Year 5 Reports.

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6.3 Findings: Year 5 Reports

6.3.1 The Year 5 Reports

6.3.1.1 Text 41. Toucans! by Cassie

Table 6. 3-1 Text 41. Toucans! (Cassie, 5/R)

41. Toucans! (Cassie, 5/R)	Stages
The Toucan is a tropical bird that lives in Central and South America. It is also on the Kellogs[sic] Fruit Loops Box.	General classification <i>Introduction of topic</i>
<p>The Toucan mainly feeds and survives on fruit, berries and nuts. It will attack frogs and insects to eat as well. This species lives in the trees of the rainforest. It nests in holes, which have already been carved in the trees. Toucans live in tropical rainforests. They live where most animals live, in the Emergent Layer. This bird lives in small flocks.</p> <p>Toucans have extremely large beaks. They are meant to be very light. It is made up of keratin and is supported with rods of bone. They usually have black bodies , with their stomach part yellow, red and sometimes blue. Their beak is yellow and the very tip is red. The beak is measured to be 12 cm long. Toucans sometimes have aqua feet.</p> <p>There are around 40 spieces[sic] of Toucans. Toucans are not extinct, but some people say that they are becoming extinct. They live until they are 15 years old. Toucan's mating season is between March and May. The Toucan holds a record for some of the world's biggest beaks. The Toucan is not nocturnal, as it sleeps at night.</p>	<p>Description <i>Prey</i></p> <p><i>Habitat</i></p> <p><i>Physical features</i></p> <p><i>Different species</i> <i>Breeding</i> <i>Other interesting facts</i></p>

Table 6. 3-2 Text 41. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
22	15	7	30	2	0	114	203	3.8	6.8

6.3.1.2 Text 42. The Spotted Cuscus, by Ginny

Table 6. 3-3 Text 42. The Spotted Cuscus (Ginny, 5/R)

42. The Spotted Cuscus (Ginny, 5/R)	Stages
The Spotted Cuscus is a relative to the possum and the monkey. They[sic] only other cuscus in Australia is the grey cuscus.	General classification
<p>The Cuscus eats fruit, meat, leaves and nectar from trees. Their diet ranges from plants to small animals, some also feed on insects.</p> <p>The Cuscus lives on the lowland of New Guinea, the Solomon Islands and North Queensland. They rest in hollow trees. The cuscus is slow in the trees, but fast on the ground.</p> <p>The Spotted cuscus belongs to the Vertibrata phylum, Mammalia class, Marsupialia order and Phalangeridai family. It is a part of the possum family and is a marsupial.</p> <p>The Cuscus can be as tiny as a mouse or as large as a house cat. They grow about 20 to 40 inches long or 40-80 cm. They normally weigh from 11/2 to 31/2 kg.</p> <p>The Cuscus' ears are hard to see. They have thick fur coats that differ in colour, from white to gray, depending on their age and location.</p> <p>That is what I know about the spotted Cuscus.</p>	<p>Description</p> <p><i>Food</i></p> <p><i>Habitat</i></p> <p><i>Species information</i></p> <p><i>Size</i></p> <p><i>Physical features</i></p> <p><i>Evaluation/conclusion</i></p>

Table 6. 3-4 Text 42. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
16	15	1	17	1	1	98	167	5.8	9.8

6.3.1.3 Text 43. Birds, by Kim

Table 6. 3-5 Text 43. Birds (Kim, 5/R)

43. Birds (Kim, 5/R)	Stages
Birds are magnifisent[sic] animals with the most wonderous[sic] coloured bodies.	General classification
<p>These amazing animals habbitat[sic] ranges from freezing deserts to warm tropical trees, gutters to ponds, to beautiful beaches, but most of all plain old trees with strong and sturdy branches.</p> <p>Their body is made from bones wrapped in skin. These bones are strong, but fragile. Webbed feet help the birds that swim; others just have extremely sharp claws.</p> <p>We all know that birds don't just pop out of no where[sic]. They are hatched from eggs, which are guarded by the mother. They are normally in nest high up in trees.</p> <p>Overall I think birds are great, flightless or not.</p>	<p>Description <i>Habitat</i></p> <p><i>Physical features</i></p> <p><i>Breeding</i></p> <p><i>Evaluation/conclusion</i></p>

Table 6. 3-6 Text 43. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
9	5	4	14	2	0	65	108	4.6	7.7

6.3.1.4 Text 44. The Blood Lapping Vampires, by Seth

Table 6. 3-7 Text 44. The Blood Lapping Vampires (Seth, 5/R)

44. The Blood Lapping Vampires (Seth, 5/R)	Stages
The blood lapping vampires suck any type of animals[sic] blood. Although that's what they do now. Before they use to feed on rainforest birds and mammals such as peccaries, mcaaws[sic] and blackbirds only to name a few. Some still do.	General classification
<p>This bat has strategies to catch it's[sic] prayer[sic]. When the bat reaches its feeding grounds, the bat listens carefully[sic] for the regular breathing sounds made by a sleeping animal. It then lands on the ground nearby and approaches the animal on foot. The bat makes a cut with its razor sharp front teeth. Then laps or sucks the blood as it oozes out. As the bat feeds its tongue rolls into a tube so it's easier to suck.</p> <p>These bats tend to live in colonies in completely dark places such as caves, old wells, & hollow trees. Colonies can range from a single individual or thousands.</p> <p>They often roost with other species of bats. They will almost always have only one offspring per breeding season. Each colony will typically contain one reproducing male, with around twenty females and their offspring.</p> <p>The three species are quite different from each other, and are therefore placed within different Genera. But they are related. In older literature, the three Genera are placed within a family desmodontidae[sic], but this is now regarded as unhelpful, as it hides the similarities the vampire bats have with other members of the American leaf nosed bat family. There family is phyllostomide[sic].</p> <p>The blood sucking bats lives[sic] in Temperate and sub tropical rainforests because they do not like the cold weather and the wet weather.</p> <p>This mammal lives in the canopy because there is[sic] lots of hiding places in the trees and long vines so they can hang off. Also because it is quite private and they can sleep.</p> <p>This animal is not extinct an[sic] at[sic] a matter of fact the numbers of population of the mammal has increased in the past couple of years.</p> <p>The bat is nocturnal but iff[sic] it's hungry it goes wherever it wants. I[sic] likes hunting at night more.</p> <p>The bat has a short, conical muzzle. It also looks like a nose leaf, instead having naked pods with u-shaped grooves at the tip. It has Infared[sic] sensors on its nose. They have small ears and a short tail membrane[sic]. Their front teeth are specialised for cutting.</p>	<p>Description <i>Feeding</i></p> <p><i>Congregating habits</i></p> <p><i>Breeding</i></p> <p><i>Species information</i></p> <p><i>Habitat</i></p> <p><i>Population numbers</i></p> <p><i>Sleeping/eating habits</i></p> <p><i>Physical features</i></p>

Table 6. 3-8 Text 44. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
30	19	11	46	7	0	202	393	4.4	8.5

6.3.2 Sentence-level information (Year 5 Reports)

Table 6. 3-9 Overview (Year 5 Reports)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
41	22	15	7	30	2	0	114	203	3.8	6.8
42	16	15	1	17	1	1	98	167	5.8	9.8
43	9	5	4	14	2	0	65	108	4.6	7.7
44	30	19	11	46	7	0	202	393	4.4	8.5
Part B										
T	77	54	23	107	12	1	479	871		
Av	19.25	13.5	5.75	26.75	3	0.25	119.75	217.75	4.6	8.2

Texts 41-44 are the Year 5 Reports and Table 6. 3-9 presents the collective sentence level data for the four Year 5 Reports. There are a total of 77 sentences, comprised of 107 ranking clauses, of which 54 are simplexes and 23 are complexes. Of these 107 ranking clauses, 13 contain embedded clauses – 12 simplexes and 1 complex at this Year level. The ratio of total words (871) to lexical items (479) is a little over 1.8:1, and the average lexical density across the 4 texts (clauses÷lexical items) is 4.6. The mean length of each clause is 8.2 words.

From the data in the table above, the characterisation of this group is that the usage of clause complexes is less than the use of clause simplexes, with the overall ratio being formalised as about 1:2.

6.3.2.1 Sentence constituents (Year 5 Reports)

Table 6. 3-10 Sentences and clauses (Year 5 Reports)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no explicit dependency (simplex)	With paratactic dependency (complex)	With hypotactic dependency (complex)	With dependency of both types (complex)	Total nexuses
1	54	70.1	54				
2	16	20.8		8	8		16
3	7	9.1			3	4	14
4							
5							
6							
7							
8							
Total	77	100	54	8	11	4	30
%			70.1	10.4	14.3	5.2	

In Table 6. 3-9, we see that the 77 sentences in the Year 5 Expositions are made up of 54 clause simplexes and 23 clause complexes. In Table 6. 3-10 these bare figures are fleshed out. As is confirmed in Columns A to D of Table 6. 3-10, the most common number of clauses per sentence in the Year 5 Expositions is one: there are 54 of these, comprising 70.1% of all sentences (Column B). The next most common length is 2 clauses, (20.8%), followed by 3 clauses (9.1%) (Columns B, C). 29.9% of sentences are clause complexes. In these clause complexes, sentences containing only hypotactic relations (11 sentences) are more common than those containing only paratactic relations (8 sentences), and than clause complexes containing both types of relations (4 sentences). The longer sentences (3 clauses long) contain both types of relations. In this data set, nexuses total 30 (Column H).

Table 6. 3-11 Dependency relations between clauses (Year 5 Reports)

Nexus type	Count	% of relation type
Paratactic	12	40.0
Hypotactic	18	60.0
Total	30	

Taking into account both the sentences with a single type of relation and those with relations of both types, the total number of paratactic nexuses and the total number of hypotactic nexuses may be determined. The results are tabulated in Table 6. 3-11. It turns out hypotactic nexuses constitute 60.0% and paratactic nexuses 40.0% of the whole.

Table 6. 3-12 shows usage of the logico-semantic relations, expansion and projection.

Table 6. 3-12 Taxis/logico-semantic relations in clause complexes (Year 5 Reports)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification				
		description		2	2	
	extension	addition: additive	8			
		addition: adversative	3			
		variation				
		alternation				
	enhancement	temporal	1	4	4	
		spatial				
		manner				
		cause		7	6	1
		conditional		2	2	
projection	locution idea	(speech)		1	1	
		(thought)		2	2	
Total			12	18	17	1

Column D of Table 6. 3-12 shows the 12 instances of parataxis. The clauses complexes are *expanded* through *extension: addition* (8 additive and 3 adversative) and through *enhancement: temporal* (1). There are no instances of paratactic *projection*. Column E shows the 18 instances of hypotaxis. Two of the three main types of *expansion* are utilised: *elaboration: description* (2), and in *enhancement*, three sub-types – *:temporal* (4), *:cause* (7) and *:conditional* (2). There is 1 instance of *projection: locution* (reported speech) and 2 instances of *projection: idea* (reported thought). These 18 hypotactic clause complexes employ dependent clauses of both finite (17) and non-finite forms (1 only).

Table 6. 3-13 Dispersion and count of ranking clauses (Year 5 Reports)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	54	54	8	46
2	16	32	2	30
3	7	21	3	18
4				
5				
6				
7				
8				
Total	77	107	13	94
%			12.1	87.9
Average per text	19.25	26.75	3.25	23.5

Turning now from ranking clauses to embedded clauses, Table 6. 3-13 shows that, in sentences of any length (Columns A, B and C), the number of clauses that do not contain embedding (Column E) substantially exceed the number that do (Column D). Over the text-group as a whole, 94 clauses, or 87.9%, do not contain embedding; 13 (or 12.1%) do.

It is that 13 (or 12.1%) of ranking clauses that contain embedding that we are now interested in. We extend the analysis of Table 6. 3-13, explicating in the main, Column D of that table. Table 6. 3-14 tallies (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the functional constituent element of its host clause (Columns D and E).

Table 6. 3-14 Embedding in ranking clauses (Year 5 Reports)

A	B	C	D	E	F
Ranking clause contains/ Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
embedded clause/s as Qualifier in a nominal group	7	[[]]Q	7		Their body is made from bones [[wrapped in skin]]. (43. Kim)
		[[[]]Q]]Q			
		multiQ			
	1	[[//]]Q	1		They have thick fur coats [[that differ in colour, [from white to gray.] // depending on their age and location.]] (42. Ginny)
		[[// //]]Q			
		[[// // //]]Q			
embedded clause/s as a whole nominal group	5	[[]]clH	2	3	Although that's [[what they do now]]. (44. Seth)
		[[[]]Q]]clH			
		multiclH			
		[[//]]clH			
		[[// //]]clH			
		[[// // //]]clH			
		[[// []]Q]]clH			
		[[<<>>]]clH			
both		mixed			
	13	Totals	10	3	
Summary					
Qualifier in a nominal group	8	61.5%	8		
Whole nominal group	5	38.5%	2	3	
Total	13	100%	10	3	
			76.9%	23.1%	

In the Year 5 Reports, 13 of 107 clauses contain embedded clauses. Table 6. 3-14 shows 8 of the 13 instances being of the embedded clause acting as a Qualifier in a nominal group, denoted here with a final Q. All instances occur as a Participant. There are 5 instances where the whole nominal group is realised by an entire embedded clause, 3 of which are Participants. As may be seen from Columns D and E, embedding in/as Circumstances is rare, occurring 3 times, whereas embedding in/as Participants is much more common, occurring 10 times.

Table 6. 3-15 below essentially provides a different way of looking at the data in Table 6. 3-14, deconstructing the complexity of the embedding, and providing examples of the clause forms.

Table 6. 3-15 Embedded clauses (Year 5 Reports)

A	B	C	D
Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
12	simplexes		12
12	[[]]	Although that's [[what they do now]]. (44. Seth)	12
	[[]]c (multiple in one clause)		
	[[]]el (multiple in one element/group)		
	[[e]] (with an embedded clause)		
	e[[]]Q (form of [[e]])		
1	complexes		2
1	[[// //]]	They have thick fur coats [[that differ in colour, [from white to gray,] // depending on their age and location.]] (42. Ginny)	1
	[[// // //]]		1
	[[// // [[]]]]		
	[[<>>]] incl		
13	Total		14
Summary of complexity of embedded clauses			
simplexes	12	92.3%	Average per text: 3
complexes	1	7.7%	Average per text: 0.25
Totals	13	100%	Average per text: 3.25

Now we consider the embedded clauses in terms of complexity (Table 6. 3-15). All 12 of the simplexes are straightforward and occur in separate clauses. There is 1 instance of an embedded clause complex, which bring the total of embeddings to 13 (Column A). The complex is composed of 2 clauses and this accounts for the total of 14 individual clauses that are embedded (Column D). Some examples are given in Column C.

Table 6. 3-16 Detail of use of embedded clauses (Year 5 Reports)

A	B	C	D		E
Placement shorthand	How embedding manifests	Simplex/ individual clause count	Examples		
in_ngQ_(P)	as Qualifier in a nominal group in a Participant	8	The Toucan is a tropical bird [[that lives in Central and South America]]. (41. Cassie)	value	
			They have thick fur coats [[that differ in colour, [from white to gray,] // depending on their age and location.]] (42. Ginny)	attribute: possessed (poss:pr/carr:p 'r)	
			Their body is made from bones [[wrapped in skin]]. (43. Kim)	value (circ)	
			Webbed feet help the birds [[that swim]]; (43. Kim)	goal	
			This bat has strategies [[to catch it's prayer]]. (44. Seth)	attribute: possessed (poss:pr/carr:p 'r)	
			the bat listens carefully for the regular breathing sounds [[made by a sleeping animal]]. (44. Seth)	phenomenon	
			as it hides the similarities [[the vampire bats have]] [with other members of the American leaf nosed bat family]. (44. Seth)	goal	
in_ngQ_(C)					
in_ngQ_(e)_(P)	as Qualifier in a nominal adjectival group in a Participant	1	... so it's easier [[to suck]]. Seth	attribute	
in_ngQ_(e)_(C)					
clH_(P)	as whole nominal group in a Participant	2	That is [[what I know about the spotted Cuscus]]. (42. Ginny)	value	
			Although that's [[what they do now]]. (44. Seth)	value	
clH_(C)	as whole nominal group in a Circumstance	3	They live [[where most animals live]], in the Emergent Layer. (41. Cassie)	location: place	
			but <<>>it goes [[wherever it wants]]. (44. Seth)	location: place	
			Their front teeth are specialised for [[cutting]]. (44. Seth)	cause purpose	
in_XX_(P)					
in_XX_(C)					
Total	Total	14			
Summary of function of embedding and as Participant or Circumstance					
as Qualifier in a nominal group in a Participant		9			
as whole nominal group in a Participant		2			
as Qualifier in a nominal group in a Circumstance					
as whole nominal group in a Circumstance		3			
Total		14			

A final perspective on the embedded clauses is provided by Table 6. 3-16, which reveals how the embedding is manifested (Column B; shorthand in Column A) for each of the 14 instances of embedded clauses in Year 5 Reports. From Column C it may be seen 8 of the 14 (57%) present as *Qualifier in a nominal group in a participant*, in a straightforward noun group (in_ngQ_(P)); 3 or 21% are involved as *whole nominal group in a Circumstance* (clH_(C)); 2 or 14% are the *whole nominal group in a participant* (clH_(P)); and the remaining 1 (7%) appears in as *Qualifier in a nominal adjectival group in a Participant* (in_ngQ_(e)_(P)). (Note, there are 4 other manifestations identified which do not occur in Year 5 Reports.) Column D gives examples.

6.3.2.2 General description (Year 5 Reports)

The Year 5 Reports have been characterised according to average length in terms of sentences (19.25) and individual ranking clauses (26.75) and by a simple word average (218) which has been divided into lexical (120) and, by calculation, grammatical (98) items. Lexical density has been calculated (4.6). The ranking clauses have been further described by average usage of clause-simplexes (13.5) and clause-complexes (5.75). The explicit logical relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 40% to 60%.

Embedded clause usage has been tallied from two perspectives: (i) number of clauses containing embedding and (ii) number of embedded clauses. The average per text for (i) is 3.25: clauses containing embedded simplexes (3) those with clause complexes (0.25). The average per text for (ii) is (3.25): embedded simplexes (3) and embedded complexes (0.25). When employed, embedded clauses are used both as qualifiers in a nominal group (61.5%) and as Whole nominal groups (38.5%). They are involved in (or as) Participants (76.9%) and in (or as) Circumstances (23.1%).

In summary, in Table 6. 3-9, some general features of the Year 5 Reports are gathered together and summarised. The rest of the tables in Section 6.3.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of

analysis: a look at the Experiential elements of the texts (Section 6.3.3), looking first at the functional elements in a clause (Processes, 6.3.3.1; Participants, 0; Circumstances, 6.3.3.3), and then at the breakdown of the nominal group, 6.3.3.4).

Now we turn to look more closely at the functional constituents of the sentences/clauses.

6.3.3 Clause constituents – Transitivity (Year 5 Reports)

6.3.3.1 Processes (Year 5 Reports)

6.3.3.1.1 Functional types of Processes (Year 5 Reports)

Table 6. 3-17 Process types (Year 5 Reports)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	42	8	50	39.6	41.7
mental	5	2	7	4.7	5.8
mental: cognition	4	1	5	3.8	4.2
mental: desideration		1	1		0.8
mental: emotion	1		1	0.9	0.8
mental: perception					
relational	56	4	60	52.8	50.0
R attrib: intens	28	1	29	26.4	24.2
R attrib: circ	6	1	7	5.7	5.8
R attrib: poss	16	1	17	15.1	14.2
R id: intens	4		4	3.8	3.3
R id: circ		1	1		0.8
R id: poss	2		2	1.9	1.7
Subtotal(principal)	103	14	117	97.2	97.5
Subsidiary					
behavioural					
verbal	1		1	0.9	0.8
existential	2		2	1.9	1.7
Subtotal(subsidiary)	3		3	2.8	2.5
Total	106	14	120	100	100
%	88.3	11.7	100		
Count of different Process types used	5	3	5		

We now turn to Transitivity and Process types, as set out in Table 6. 3-17. To take in the ‘big picture’ first, it is useful to start at the second and third last rows. Here we see there are 106 ranking clauses and 14 non-ranking clauses, making a total of 120; in terms of proportions, ranking clauses make up 88.3% of the clauses and non-ranking 11.7%.

Of the principal ranking Processes, relational are the most common (56), followed by material (42). Mental are about eight times less common (5). The subsidiary Processes provide only 3 instances, 2 existential processes and 1 verbal.

Within the relational Processes in ranking clauses, there is a heavy reliance on attributive processes: *attributive intensive processes* (28) are used most, followed by *attributive possessive* (16) and *attributive circumstantial* (6). In contrast, identifying processes are relatively few: *identifying intensive* (4). There are four (4) embedded instances, one each of *attributive intensive* (1), *attributive circumstantial* (1), *attributive possessive* (1), and *identifying circumstantial* (1). With respect to mental Processes, the order of frequency of appearance in ranking clauses is *cognition* (3) and *emotion* (1); in non-ranking clauses, *cognition* (1) and *desideration* (1).

Comparing with Column C, there are far more ranking clauses, 106, than embedded clauses, 14. The embedded clauses are distributed in a different pattern to the ranking clauses – material (8) to relational (4) to mental (2). There are no subsidiary embedded clauses.

The combination of the ranking and embedded clauses is given in Column D of Table 6. 3-17. The effect of the embedded clauses softens the dominance of the relational Processes observed in the ranking clauses, with now exactly half (50.0%) of the Process types being relational. Next most represented are the material Processes (41.7%), then come mental Processes (5.8%). Subsidiary Processes make up the remainder (2.5%). In approximate terms, half the Processes are relational and two fifths material.

Across clause types, the frequency of use of types of Processes is:

relational	60	(50.0%)
material	50	(41.7%)
mental	7	(5.8%)
existential	2	(1.7%)
verbal	1	(0.8%)
behavioural	0	(0%)
Total	120	(100%)

6.3.3.1.2 Realisation – form of Processes (Year 5 Reports)

Table 6. 3-18 Process form (Year 5 Reports)

A	B	C	D	E	F
Verbal group feature	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
A Complexity:					
Verbal group simplexes	86	13	99	81.1	82.5
Verbal group complexes	20	1	21	18.9	17.5
Total	106	14	120	100	100
B Other features:					
Phrasal verbs	8		8		
Modal finites	10		10		
Modal adjuncts	13		13		

Whether in ranking or non-ranking clauses, verbal group simplexes (99) greatly outnumber verbal group complexes (21) (Table 6. 3-18). In total, simplexes are 4 times more common than complexes (Column F). Other features, in order of frequency in ranking clauses (Column B), are modal adjuncts (13) and modal finites (10) and phrasal verbs (8); these do not appear in non-ranking clauses (Column C).

Table 6. 3-19 complements Table 6. 3-18 by explicating the types of complexity found in the verbal group complexes, and Table 6. 3-20 collates instances found in the texts.

Table 6. 3-19 Verb complexing summary (Year 5 Reports)

A	B	C	D	E	F
Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis	2		2	10.0	9.5
expansion elaboration					
expansion extension	2		2	10.0	9.5
expansion enhancement					
projection not applicable					
Hypotaxis	17	1	18	85.0	85.7
expansion elaboration	9	1	10	45.0	47.6
expansion extension	4		4	20.0	19.0
expansion enhancement	1		1	5.0	4.8
projection	3		3	15.0	14.3
Multiple complexing	1		1	5.0	4.8
Total	20	1	21	100	100

From Table 6. 3-19 it is evident that hypotaxis is used much more widely than parataxis. Both examples of parataxis involve *expansion: extension*. The examples of hypotaxis are spread over *expansion: elaboration* (9), *expansion: extension* (5), projection (3) and expansion: enhancement (1). Both within parataxis and hypotaxis, *expansion: extension* features prominently. All 21 instances are set out in Table 6. 3-20.

Table 6. 3-20 Instances of complexing in the verb (Year 5 Reports)

Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis	2			
expansion elaboration				
expansion extension	2	The Toucan mainly feeds and survives on fruit, berries and nuts. (41. Cassie)	material	and or
		Then laps or sucks the blood (44. Seth)	material	
expansion enhancement				
projection				
Hypotaxis	18			
expansion elaboration	10	... which have already been carved in the trees. (41. Cassie)	material	passive elab
		It is made up of keratin (41. Cassie)	R id: poss	
		Their body is made from bones [[wrapped in skin]]. (43. Kim)	R id: poss	
		bones [[wrapped in skin]]. (43. Kim)	R id: circ[[]]	
		They are hatched from eggs, (43. Kim)	material	
		which are guarded by the mother. (43. Kim)	material	
		and are therefore placed within different Genera. (44. Seth)	R attrib: poss	
		In older literature, the three Genera are placed within a family desmodontidae, (44. Seth)	R attrib: poss	
		but this is now regarded as unhelpful, (44. Seth)	mental: cognition	
		Their front teeth are specialised for [[cutting]]. (44. Seth)	material	
expansion extension	4	The Cuscus can be as tiny as a mouse or as large as a house cat. (42. Ginny)	R attrib: intens	gen ext can
		Colonies can range from a single individual or thousands. (44. Seth)	R attrib: circ	
		so they can hang off . (44. Seth)	material	
		and they can sleep . (44. Seth)	material	
expansion enhancement	1	These bats tend to live in colonies in completely dark places such as caves, old wells, & hollow trees. (44. Seth)	material	gen enhanc time
projection	3	It will attack frogs and insects (44. Seth)	material	proj Posal:idea will
		I likes hunting at night more. (41. Cassie)	material	proj Posal:idea want
		They are meant to be very light. (41. Cassie)	R attrib: intens	proj Propl:loc claim
Multiple	1	The beak is measured to be 12 cm long. (41. Cassie)	R attrib: circ	gen elab prove/passive elab
Total	21			

6.3.3.2 Participants (Year 5 Reports)

6.3.3.2.1 Functional types of Participants (Year 5 Reports)

Participant roles are set out in Table 6. 3-21. The numbers in ranking clauses are set out in Column C, non-ranking clauses in Column D, and the total in Column E. Column C as a ratio with the total ranking clauses appears in Column F and as a ratio with the total clauses, ranking and non-ranking, appears in Column G.

Table 6. 3-21 Participant roles (Year 5 Reports)

A	B	C	D	E	F	G
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material <i>oblique</i>	actor	35	5	40	20.5	21.6
	goal	17	1	18	9.9	9.7
	recipient					
	client					
	scope					
	initiator					
	attribute: depictive					
	attribute: resultative					
mental <i>oblique</i>	senser	4	2	6	2.3	3.2
	phenom	3	1	4	1.8	2.2
	inducer					
relational: attrib	carrier	48	2	50	28.1	27.0
	attribute	49	2	51	28.7	27.6
R attrib: intens	carrier	24		24	14.0	13.0
	attribute	25		25	14.6	13.5
R attrib: circ	carrier (cir:att)	3	1	4	1.8	2.2
	attribute (cir:att)	3	1	4	1.8	2.2
	carrier (cir:pr)	6		6	3.5	3.2
	attribute (cir:pr)	6	1	7	3.5	3.8
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	14	1	15	8.2	8.1
	attribute: possessed(poss:pr/carr:p'r)	14		14	8.2	7.6
	carrier: possessed(poss:pr/carr:p'd)	1		1	0.6	0.5
	attribute: possessor(poss:pr/carr:p'd)	1		1	0.6	0.5
<i>oblique</i>	attributor					
	beneficiary					
relational: ident	token	6		6	3.5	3.2
	value	6	1	7	3.5	3.8
R id: intens	token	4		4	2.3	2.2
	value	4		4	2.3	2.2
R id: circ	token(circ)					
	value(circ)		1	1		0.5
R id: poss	token(poss)	2		2	1.2	1.1
	value(poss)	2		2	1.2	1.1

<i>oblique</i>	assigner					
behavioural	behave					
<i>oblique</i>	behaviour					
	phenomenon(b)					
verbal	sayer	1		1	0.6	0.5
	receiver					
<i>oblique</i>	verbiage					
	target					
existential	existent	2		2	1.2	1.1
	Total	171	14	185	100	100
	Count of different Participant roles used	10	7	10		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, recipient, attribute; initiator	54 52	6	60 58	31.6 30.4	32.4 31.4
mental	sensor, phenomenon; inducer	5 7	3	8 10	2.9 4.1	4.3 5.4
relational		109	5	114	63.7	61.6
attribution	carrier, attribute, beneficiary, attributor	97	4	101	56.7	54.6
identification	token, value; assigner	12	1	13	7.0	7.0
behavioural	behaviour; phenomenon(b)					
verbal	sayer, receiver; verbiage, target	1		1	0.6	0.5
existential	existent	2		2	1.2	1.1
		171	14	185	100	100

The main Participant roles are of course taken by those that are directly involved with the Process, in descending order of frequency of use.

	Processes %	Participants %
relational	50.0	61.6
material	41.7	31.4
mental	5.8	5.4
verbal	1.7	0.5
existential	0.8	1.1
behavioural	0	0
Total	100	100

There is no need to comment on these more than en passant; they are largely self-evident. We are interested in the more obliquely involved Participants, and our observations will revolve around those.

Table 6. 3-22 collates information about the use of the indirectly involved Participants that are counted in Table 6. 3-21 Column A again sections the table according to Process type: material, mental, relational, behavioural, verbal,

existential, and relational Processes here are again separated into relation-type (attributive or identifying). Column B again lists Participant roles associated with the Process types in Column A, this time separating them into directly and obliquely involved types. Columns C and D record the usage. This allows a window into where different Year group texts are broadening the meaning in their clauses through an increased use of oblique Participant roles.

Table 6. 3-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 5 Reports)

Different Participant roles used in Year 5 Reports						
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	(i) direct	(ii) oblique	Total			
material	2	6	8	2		2
mental	2	1	3	2		2
relational	4	3	7	4		4
attributive	2	2	4	2		2
identifying	2	1	3	2		2
behavioural	1	2	3			
verbal	2	2	4	1		1
existential	1	0	1	1	0	1
Total	12	14	26	10		10

In Table 6. 3-22, Column C echoes exactly B(i), showing that those Participant roles that are directly related to the process types are all used in the Year 5 Reports. This accounts for 10 of the Participant roles used. The remaining 6 are used as per Column D – which is empty.

6.3.3.2.2 Realisation – form of Participants (Year 5 Reports)

Table 6. 3-23 Summary of forms taken by Participants (Year 5 Reports)

B	C	D	E	F	G	H	I	J	K	L
Participants in ranking clauses					Participants in embedded clauses					Both
Nominal group			Prepositional phrase	Adverbial group	Nominal group			Prepositional phrase	Adverbial group	Total
noun group	adjectival group	clause			noun group	adjectival group	clause			
138	18	2	13		11			3		185
158					11					
171					14					

The Year 5 Reports display no deviation from the expected in the realisation of their Participants – the majority are nominal groups (158 in ranking clauses, and 11 in embedded clauses, making 91.4%). Prepositional phrases are used 16 times (8.7%), and there are no adverbial groups.

The dominance of the noun group is reflected in the Year 5 Report texts, both in the ranking clauses, where 138 of the 158 nominal groups are noun groups, and in the non-ranking clauses, where all 11 have this form; overall, 149 of 185 forms fall in this category – 80.5%. Second by frequency are adjectival groups (18, all in ranking clauses, 9.7%). Prepositional phrases (13 in ranking clauses and 3 in embedded) constitute 8.6% each of the Participants in all clauses. Whole clauses are used once in the 185 Participants (less than 1%).

Table 6. 3-24 Detail of forms taken by Participants (Year 5 Reports)

A	B	C	D	E	F	G	H	I	J	K	L
	Participants in ranking clauses					Participants in embedded clauses					Both
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total
	noun group	adj. group	clause			noun group	adj. group	clause			
Nominal groups											
One group	132	17	2	8		11			2		172
Single function (Head only)	59	14	2	1		7			1		84
Pre-mod + Head (no post-mod)	58			6		4			1		69
Post-mod (may be pre-mod)	15	3		1							19
Two+ groups	6	1		5					1		13
Adverbial groups											
One group											
Single function											
Pre-mod + Head											
Post-mod											
Two+ groups											
Summary of forms taken by Participants											
Noun groups	138					11					149
Adj. nominal groups		18									18
Clauses			2								2
Prepositional phrases				13					3		16
Adverbial groups											
Total all	171					14					185

Table 6. 3-23 is expanded into Table 6. 3-24, concentrating on the make-up of the groups. The most frequently used form for Participants involves one nominal group. Looking at that section, a majority contains group consisting of Head only (84 of 172 or 48.8%). Making up the numbers here are the noun groups with 59 in ranking clauses, 7 in embedded; adjectival nominal groups occur 14 times all in ranking; clause-as-head occurs 2 times in ranking clauses; prepositional phrase occurs once in a ranking clause. Next in frequency of usage is of nominal groups that contain a pre-modifying function (69 of 172, or 40.1%, including 62 noun groups, and 5 in prepositional phrases). Nominal groups with a post-modifying function occur 19 times (or 11.0%), including 3 adjectival groups and one prepositional phrase.

Usage of more than one nominal group in a nominal group complex as Participant occurs 13 times, 12 in a ranking clause, and 1 embedded (representing 7.0% of the total Participants).

Altogether, there are 16 prepositional phrases used as Participants, 8.6% of total Participants, using nominal groups with a full spectrum of functions.

To sum up the way that Participants in Year 5 Reports are realised, of the 185 in total, 149 are noun groups, 18 are adjectival groups, 16 are prepositional phrases, 2 are realised by a whole clause. There are no adverbial groups used as Participants.

Examples of the forms discussed through Table 6. 3-24 are presented in Table 6. 3-25. Included are representative examples of each form.

Table 6. 3-25 Examples of forms taken by Participants (Year 5 Reports)

Function feature	Form	Example	Participant role	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	noun group	colonies (44. Seth)	carrier (cir:pr)	
	adj group	strong, but fragile. (43. Kim)	attribute	
	adj group	flightless or not. (43. Kim)	attribute	
	clause	[[what they do now]] (44. Seth)	value	
	clause	[[what I know about the spotted Cuscus]]. (42. Ginny)	value	
with Pre-mod	noun group	toucan's mating season (41. Cassie)	carrier (cir:att)	
	noun group	one reproducing male, (44. Seth)	attribute: possessed(poss:pr/car r:p'r)	
	noun group	{the only other is}.... the grey cuscus (42. Ginny)	token	
	noun group	around 40 spieces of Toucans. (41. Cassie)	existent	class
	noun group	a part of the possum family (42. Ginny)	attribute	part
	noun group	any type of animals blood. (44. Seth)	goal	class
Post-mod	noun group	black bodies, [with their stomach part yellow, red and sometimes blue]. (41. Cassie)	attribute: possessed(poss:pr/car r:p'r)	Qualifier – phrase contains expansion
	adjectival nom	12 cm [long]. (41. Cassie)	attribute	Qualifier – phrase
	adjectival nom	15 years [old]. (41. Cassie)	attribute	Qualifier – phrase
	noun group	a record [for some of the world's biggest beaks]. (41. Cassie)	attribute: possessed(poss:pr/car r:p'r)	Qualifier – phrase
	noun group	a relative [to the possum and the monkey]. (42. Ginny)	attribute	Qualifier – phrase contains expansion
	noun group	They only other cuscus [in Australia] (42. Ginny)	value	Qualifier – phrase
	noun group	magnifisent animals [with the most wonderous coloured bodies]. (43. Kim)	attribute	Qualifier – phrase
	prep phrase	in nest high up in trees. (43. Kim)	attribute (cir:att)	Qualifier – phrase
	noun group	the numbers [of population [of the mammal] (44. Seth)	actor	Qualifier – phrase
	noun group	naked pods [with u-shaped grooves] (44. Seth)	attribute: possessed(poss:pr/car r:p'r)	Qualifier – phrase
	noun group	a tropical bird [[that lives in Central and South America]]. (41. Cassie)	attribute	Qualifier – clause
	adjectival nom	hard [[to see]]. (42. Ginny)	attribute	Qualifier – clause

	noun group	thick fur coats [[that differ in colour, from white to gray, // depending on their age and location.]] (42. Ginny)	attribute: possessed(poss:pr/car r:p'r)	Qualifier – clause
	noun group	from bones [[wrapped in skin]]. (43. Kim)	value(circ)	Qualifier – clause
	noun group	the birds [[that swim]]; (43. Kim)	goal	Qualifier – clause
	noun group	[[what they do now]]. (44. Seth)	value	Qualifier – clause
	noun group	strategies [[to catch it's prayer]]. (44. Seth)	attribute: possessed(poss:pr/car r:p'r)	Qualifier – clause
	noun group	the regular breathing sounds [[made by a sleeping animal]]. (44. Seth)	phenom	Qualifier – clause
	noun group	easier [[to suck]]. (44. Seth)	attribute	Qualifier – clause
	noun group	the similarities [[the vampire bats have]] [with other members of the American leaf nosed bat family]. (44. Seth)	goal	Qualifier – clause and Qualifier – phrase
Two+ groups				Taxis/LS at group rank
Head only Head only	prep phrase with group complex in noun group	between March and May. (41. Cassie)	attribute (cir:att)	para exten
	prep phrase	from freezing deserts to warm tropical trees, gutters to ponds, to beautiful beaches, but most of all plain old trees with strong and sturdy branches. (43. Kim)	attribute (cir:pr)	para elab
	noun group with group complex in qualifier	rainforest birds and mammals such as peccaries, maccaws and blackbirds only to name a few. (44. Seth)	goal	para elab
	prep phrase with group complex in noun group	from a single individual or thousands. (44. Seth)	attribute (cir:pr)	para exten
	noun group noun group	the cold weather and the wet weather. (44. Seth)	phenom	para exten
	noun group noun group	lots of hiding places [in the trees] and long vines (44. Seth)	existent	para exten
	noun group noun group	small ears and a short tail membrane. (44. Seth)	attribute: possessed(poss:pr/car r:p'r)	para exten
Adverbial groups				
One group				
Head only				
Pre-mod				
Post-mod				
Two+ groups				

6.3.3.3 Circumstances (Year 5 Reports)

6.3.3.3.1 Functional types of Circumstances (Year 5 Reports)

Table 6. 3-26 Types of Circumstances (Year 5 Reports)

A	B	C	D	E	F
Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive	1		1	2.7	2.4
accomp: comitative	1		1	2.7	2.4
angle: source	1		1	2.7	2.4
angle: viewpoint					
cause: behalf					
cause: purpose	1		1	2.7	2.4
cause: reason					
contingency: concession					
contingency: condition					
contingency: default					
extent: distance					
extent: duration					
extent: frequency					
location: place	20	3	23	54.1	54.8
location: time	7	1	8	18.9	19.0
manner: comparison	1		1	2.7	2.4
manner: degree					
manner: means	3		3	8.1	7.1
manner: quality	2		2	5.4	4.8
matter		1	1		2.4
role: guise					
role: product					
Total	37	5	42	100	100
%	88	12	100		
Count of different types of Circumstances used	9	3	10		

Types of Circumstances are shown in Table 6. 3-26, separated into ranking and other clauses. Altogether, 42 Circumstances are used in these texts, 5 in embedded clauses. In terms of frequency of occurrence, first place is held by location:place (23 occurrences, or 54.8%). Next most frequent is location:time (8 usages or 19.0%). manner:means (3 or 7.1%) is next. Frequency then drops to ones and twos: manner:quality (2), accompaniment:additive (1), accompaniment:comitative (1), angle:source (1), cause:purpose (1), manner:comparison (1) and matter (1). Of the 22 Circumstance types listed, these 9 are used in these Year 5 Reports, with matter (1) being used only in an embedded clause.

6.3.3.3.2 Realisation – form of Circumstances (Year 5 Reports)

Table 6. 3-27 Summary of forms taken by Circumstances (Year 5 Reports)

B	C	D	E	F	G	H
Circumstances in ranking clauses			Circumstances in embedded clauses			All
Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
29	1	7	2		3	42
37			5			

The forms taken by the 42 Circumstances identified are listed in Table 6. 3-28. Prepositional phrase dominate, with 28 in ranking clauses and 2 in other clauses of the total of 30. Next come adverbial groups, with 7 in ranking clauses and 3 in other clauses. To complete the picture, there are 2 noun groups in ranking clauses.

Table 6. 3-28 Detail of forms taken by Circumstances (Year 5 Reports)

A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	26			2			28
Single function (Head only)	10			1			11
Pre-mod + Head (no post-mod)	14			1			15
Post-mod (may be pre-mod)	2						2
Two+ groups	3	1					4
Adverbial groups							
One group			7			3	10
Single function (Head only)			7			3	10
Pre-mod + Head (no post-mod)							
Post-mod (may be pre-mod)							
Two+ groups							
Summary of forms taken by Circumstances							
Prepositional phrases	29			2			31
Noun groups		1					1
Adverbial groups			7			3	10
Total all	37			5			42

In Table 6. 3-28 we see of that the 42 nominal groups involved in Circumstances, 28 are constructed using a single group and 4 involve a group complex of two or more

groups. The use of pre-modification (15) is favoured over the bare form (11). Post-modification is also used (2). Adverbial groups are limited to group simplexes, using Head alone (10).

Table 6. 3-29 Examples of forms taken by Circumstances (Year 5 Reports)

Feature	Form	Example	Circumstance type	Note
Prepositional phrases / Nominal groups				
One group				
Head only (including clause as Head)		in trees (41. Cassie)	location: place	
		from eggs (43. Kim)	location: place	
		out of nowhere (43. Kim) prepositional group	location: place	
		as unhelpful (44. Seth)	manner: quality	
	clause	[[wherever it wants]]. (44. Seth)	location: place	
	prep phrase	for [[cutting]]. (44. Seth)	cause: purpose	
With Pre-mod		about the Spotted Cuscus (42. Ginny)	matter[[]]	
		on older literature (44. Seth)	angle: source	
		with its razor sharp front teeth. (44. Seth)	manner: means	
	prep phrase	with other species of bats. (44. Seth)	accomp: comitative	Focus – classifying
With Post- mod qualifying phrase	prep phrase	in the trees of the rainforest. (41. Cassie)	location: place	Qualifier – phrase
	prep phrase	with rods of bone. (41. Cassie)	manner: means	Qualifier – phrase
Two+ groups				
				Taxis/LS at group rank
group complex 3	noun group	[[where most animals live]], in the Emergent Layer. (41. Cassie)	location: place	para elab
	prep phrase	on the lowland of New Guinea, the Solomon Islands and North Queensland. (42. Ginny)	location: place	para exten
	prep phrase	in completely dark places such as caves, old wells, & hollow trees. (44. Seth)	location: place	para elab
	prep phrase	with around twenty females and their offspring. (44. Seth)	accomp: additive	para exten
Adverbial Groups				
One group				
Head only		carefully (44. Seth)	manner; quality	
		nearby (44. Seth)	location: place	
Pre-mod				
Post-mod				
Two+ groups				

6.3.3.4 The Nominal Group – a special case (Year 5 Reports)

In this section are collected together the nominal groups from the Participants and Circumstances, from both ranking and embedded clauses, from the Year 5 Reports.

Table 6. 3-30 Nominal groups (Year 5 Reports)

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	84	9	28	121	28.9	41.6
Head=Thing	64	9	20	93	22.0	32.0
Head≠Thing, elliptical	5		1	6	1.7	2.1
Head≠Thing, Epithet	15		7	22	5.2	7.6
Pre-mod + Head only	78	6	57	141	26.8	48.5
Head=Thing	73	6	54	133	25.1	45.7
Head≠Thing, elliptical	1			1	0.3	0.3
Head≠Thing, Epithet						
Head≠Thing, focus	4		3	7	1.4	2.4
Post-modification	21		8	29	7.2	10.0
with qualifying phrase	12		8	20	4.1	6.9
with qualifying clause	8			8	2.7	2.7
with multiple qualifiers	1			1	0.3	0.3
Total	183	15	93	291	62.9	100

Looking at the ‘big picture’ presented in Table 6. 3-30, in Year 5 Reports, there are 291 instances of nominal groups (Column E). Use of nominal groups with some pre-modification is the most evident, with 48.5% of instances displaying this form. A smaller percentage, 41.6%, consists of the Head only, and 10% have a post-modifier (Column G).

Now we will look briefly at the three sections of Table 6. 3-30, starting with the most used form. Of the nominal groups consisting of pre-modifier + Head (48.5%), by far the most have Head conflated with Thing (133 of 141, or 94.3%). The remaining instances involve the use of focus (an extended numerative) – (7 of 141, or 5.0%) and instances where the Head is conflated with something other than an Epithet (1 of 141 or 0.7%). Second most used are Head-only groups (41.6%). Of these, most are conventional noun groups, where the Head conflates with Thing (93 from 121, or 76.7%). Next are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet (22 of 121, or 18.1%) and some have the Head conflated

with an element other than an Epithet (6 of 121, or 5%). Thirdly, in the 10% of clauses that contain a post-modifying element, use of a qualifying phrase (20 of 29 or 69.0%) is most used, then use of a qualifying clause (8 of 29 or 27.5%). There is one instance which makes use of multiple qualifiers (1 of 29 or 3.4%).

Examples of nominal groups appear in Table 6. 3-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the left-most position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to comment on the action surrounding the Head.

Table 6. 3-31 Examples of nominal groups (Year 5 Reports)

Total	% Total	Feature	Examples		Notes/type
121	41.6	single function – Head only			
93	32.0	Head=Thing	pronouns (53.8%); common nouns (43.0%); proper nouns (3.2%). (Some word complexes e.g. <i>frogs and insects</i> .) (Personal pronouns 45.2%.)		
6	2.1	Head≠Thing, elliptical	that <i>in</i> that is what I know ((42. Ginny)		deictic only
			thousands. <i>in</i> a single individual or thousands (44. Seth)		numerative only
22	7.6	Head≠Thing, Epithet	strong, but fragile (43. Kim)		para exten in Epithet
			quite private (44. Seth)		submodification in Epithet
			extinct (41. Cassie)		
141	48.5	Pre-mod + Head only			
133	45.7	Head=Thing	SEE TABLE BELOW		
1	0.3	Head≠Thing, elliptical	each other <i>in</i> from each other (44. Seth)		deictic / post-deictic
		Head≠Thing, Epithet			
7	2.4	Head≠Thing, focus	around 40 spieces of Toucans (41. Cassie)		F – classifying submodification in focus
			the lowland of New Guinea (42. Ginny)		F – partitive
			for some of the world's biggest beaks (41. Cassie)		F – selecting
29	10.0	Post-modification			
20	6.9	with qualifying phrase	with Pre-mod Head=Thing	eatable pearls out of salt (1. Annie)	
8	2.7	with qualifying clause	Head only Head=Thing	bones [[wrapped in skin]] (43. Kim)	finite clause as qualifier
			Head only Head=Thing	strategies [[to catch it's prayer]] (44. Seth)	non-finite clause as qualifier
			Head only Head≠Thing, Epithet	easier [[to suck]] (44. Seth)	non-finite clause as qualifier
			with Pre-mod Head=Thing	thick fur coats [[that differ in colour, from white to gray, // depending on their age and location.]] (42. Ginny)	finite clause complex as qualifier
1	0.3	with multiple qualifiers	with Pre-mod Head=Thing	the similarities [[the vampire bats have]] with other members of the American leaf nosed bat family. (44. Seth)	finite clause as qualifier; phrase as qualifier
291	100	Total			

Having looked at the wide scope of the nominal group in Year 5 Expositions, let us look now at the pre-modifying element, especially the one row in Table 6. 3-30 that summarises much and should not be passed over without elaboration, highlighted in the re-produced table below:

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	84	9	28	121	28.9	41.6
Head=Thing	64	9	20	93	22.0	32.0
Head≠Thing, elliptical	5		1	6	1.7	2.1
Head≠Thing, Epithet	15		7	22	5.2	7.6
Pre-mod + Head only	78	6	57	141	26.8	48.5
Head=Thing	73	6	54	133	25.1	45.7
Head≠Thing, elliptical	1			1	0.3	0.3
Head≠Thing, Epithet						
Head≠Thing, focus	4		3	7	1.4	2.4
Post-modification	21		8	29	7.2	10.0
with qualifying phrase	12		8	20	4.1	6.9
with qualifying clause	8			8	2.7	2.7
with multiple qualifiers	1			1	0.3	0.3
Total	183	15	93	291	62.9	100

The highlighted row contains uses of the pre-modifying element in the nominal group where the Head is in phase with the Thing (i.e., in our data, is not elliptical, is not an Epithet and does not involve the use of the extended numerative (IFG3 p.333) known as Focus (DFG p.170); these belong to the rows following and examples have been included in Table 6. 3-31). The range of configurations of pre-modifying elements was examined across all the texts in the data set and a list compiled of those used. This list of 25 different configurations is presented in Table 5. 3-32, with data and examples for Year 5 Reports.

Table 6. 3-32 Pre-modification in the nominal group (Year 5 Reports)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing	1	0.8	the past couple of years (44. Seth)	
DeicticDeictic2EpithetThing				
DeicticDeictic2Thing	1	0.8	The only other cuscus in Australia (42. Ginny)	
DeicticNumerativeEpithetThing				
DeicticNumerativeThing	3	2.3	a single individual (44. Seth)	the three species (44. Seth)
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing	4	3.0	the regular breathing sounds [[made by a sleeping animal]] (44. Seth)	its razor sharp front teeth (44. Seth)
DeicticEpithetEpithetEpithetThing				
DeicticEpithetEpithetThing	2	1.5	the most wondrous coloured bodies (43. Kim)	a short, conical muzzle (44. Seth)
DeicticEpithetThing	7	5.3	the very tip (41. Cassie)	a sleeping animal (44. Seth)
DeicticClassifierClassifierThing				
DeicticClassifierThing	12	9.0	Toucan's mating season (41. Cassie)	The Spotted Cuscus (42. Ginny)
DeicticThing	61	45.9	These amazing animals habitat (43. Kim)	these bones (43. Kim)
Deictic2Thing	1	0.8	different Genera. (44. Seth)	
Deictic2ClassifierThing				
NumerativeClassifierThing	1	0.8	one reproducing male (44. Seth)	
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing	1	0.8	lots of hiding places in the trees (44. Seth)	
NumerativeThing	7	5.3	most animals (41. Cassie)	40-80 cm (42. Ginny)
EpithetClassifierThing	2	1.5	thick fur coats [[that differ in colour, from white to gray, // depending on their age and location.]] (42. Ginny)	to warm tropical trees (43. Kim)
EpithetEpithetThing	1	0.8	plain old trees with strong and sturdy branches (43. Kim)	
EpithetThing	19	14.3	aqua feet (41. Cassie)	u-shaped grooves (44. Seth)
ClassifierClassifierThing				
ClassifierThing	10	7.5	Mother birds (Maisie)	webbed feet (Mike)
25 Total	133	100		
Count of different configurations used	15			

Of the twenty-five available patterns, 16 were used (64%) in Year 5 Reports. Of the 133 instances of pre-modification in the nominal group, the most used configuration is, unsurprisingly, *DeicticThing* (61 of 133, or 45.9%). Next most common is *EpithetThing* (19 or 14.3%), followed by *DeicticClassifierThing* (12 of 133, or 9.0%) and *ClassifierThing* (10 of 133, or 7.5%). Usage drops then, to *NumerativeThing* (7 of 133, or 5.3%) and *DeicticEpithetThing* (7 of 133, or 5.3%), then to *DeicticEpithetClassifierThing* (4 instances or 3.0%). There are three usages of *DeicticNumerativeThing* (2.3%) and followed by two instances each of *DeicticEpithetEpithetThing* and *EpithetClassifierThing* (1.5%). Single usages (0.8% each) are of *DeicticDeictic2NumerativeThing*, *DeicticDeictic2Thing*, *Deictic2Thing*, *NumerativeClassifierThing*, *NumerativeEpithetThing* and *EpithetEpithetThing*.

Examining the elements in the pre-modifier that allow a lexical choice to be made, *Epithet* and *Classifier*, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 36 of the 133 (27.1%) involve the use of *Epithets*, using seven different configurations (and one instance using two epithets). Twenty-nine (29) nominal groups use a *Classifier* (21.8%), in five configurations.

It may also be interesting to note how many drop the *Deictic*. It is posited that this may indicate the use of more generalised terms, a feature of factual genres, where the field often involves information about general phenomena rather than personal or specific phenomena or entities. In the case of the Year 5 Reports, 42 (or 31.6%) noun groups do not use a *deictic*.

There is any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

We now turn to look at the comparable features in Year 6 Reports.

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6.4 Findings: Year 6 Reports

6.4.1 The Year 6 Reports

6.4.1.1 Text 45. Emperor Penguin, by Belle

Table 6. 4-1 Text 45. Emperor Penguin (Belle, 6/R)

45. Emperor Penguin (Belle, 6/R)	Stages
The Emperor Penguin (<i>Aptenodytes fosteri</i>) is a monotreme, and it gives birth by laying eggs. An interesting fact is that the Emperor Penguins are great divers. The record for this penguin is 565 metres deep, and they can hold their breath for 22 minutes. Their closest relatives are the King Penguins.	General classification
<p>The Emperor Penguin has a soft orange neck, with a black back, wings, and a beak with a tinge of orange. There is also some orange on the sides, leading into a nice, soft, white belly. The average adult Emperor, is around 1 metre long, and 3 kilograms. This penguin has special feathers to keep it warm. They can live to be over 40.</p> <p>The Emperor Penguin lives in Antarctica, in the Southern Hemisphere. Their habitat is very cold, so during fierce storms, they make a big circle and huddle together. They take turns from being in the middle of the circle to the outside.</p> <p>Emperor Penguins have a small food source. They mostly eat fish, frill, of squid. Many animals in Antarctica rely on penguins as their food source, such as Killer whales, Blue whales, leopard[sic] seals, and the walrus.</p> <p>The Emperor Penguin only lays two eggs in their whole life time. They mostly lay in the months of May and June. It takes 65 days for the egg to hatch, and if the egg is dropped on the cold ice, it can freeze over and the baby chick inside can die. When the chick hatches, it weighs 11 ounces, and they live with their mother for five months, before going out on its own.</p> <p>Some other interesting facts about this amazing creature are, that they are the only animals in Antarctica that breed in winter. When looking after the egg the father penguin will have fasted for 62 days. Penguins have a sickness called pesticide which can kill humans.</p>	Description

Table 6. 4-2 Text 45. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
22	13	9	38	4	0	172	308	4.5	8.1

6.4.1.2 Text 46. Deserts, by Jack

Table 6. 4-3 Text 46. Deserts (Jack, 6/R)

46. Deserts (Jack, 6/R)	Stages
Deserts are all over the world. They have harsh hot tempratures[sic] during the day and freezing cold during the night.	General classification
<p>Locations</p> <p>Most deserts are located in Africa and the middle east They cover North Africa and Saudi Arabia. The Sahara (the second largest desert) covers countries like Algeria, Libya, Sudan and Egypt with a blanket of sand. large deserts also form in Central Australia, the west coast of South America and North American states such as Nevada and Utah.</p> <p>Climate and Weather</p> <p>Deserts often have the most extreme weather in the world. During the day temperatures can easily reach 45oc during the day and a freezing -12oc during the night. Deserts also recieve[sic] very little precipitation because of the heat. The heat from the earth evaporates before it hits the ground. That leads to the next topic.</p> <p>Water</p> <p>Deserts occur when there is less than 50cm of rain per year. Soils in cold basin deserts, however, need only water to become very productive and have little or no organic matter what so ever.</p> <p>Disturbances are common in the form of fire, cold weather and sudden infrequent yet intense rain. Deserts recieve[sic] very little precipitation because a lot of the rain is evaporated by the heat before it hits the ground. Hot and dry deset[sic] are warm and very hot through summer. Winter brings very little rainfall.</p> <p>Animals</p> <p>Different animals live in the different types of deserts. Animals that live in deserts have adaptions to cope with the lack of water, the extreme temprature[sic] and shortage of food. Alot[sic] avoid daytime heat by adapting into a nocturnal animal. Most live in warm, yet not scorching burrows underground and wait till night when they can come out and feed.</p> <p>Population</p> <p>In 1950 the population of all deserts was 76 million aproximately[sic]. In 1985, population reached 105 million people. By the year 2000 scientist expected population to climb to 180 million but it only raised about 32 million since 1985.</p> <p>Diagrams and Illustrations</p> <p>On the following page, there are some diagrams, Illustration and extra facts to support my already thourough[sic] information above.</p>	Description

Table 6. 4-4 Text 46. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
25	16	9	38	2	0	182	335	4.8	8.8

6.4.1.3 Text 47. Penguins, by Kay

Table 6. 4-5 Text 47. Penguins (Kay, 6/R)

47. Penguins (Kay, 6/R)	Stages
There are many types of penguins that live in Antarctica[sic] like the Adelie, Emperor, King, Humboldt, Yellow-eyed, Gentoo, Chinstrap, Royal, little and many others.	General classification
<p>The largest is the Emperor at 1m which is the size of a young child. The smallest breed is the Little penguin at the height of 35cm which is just larger than a regular ruler!</p> <p>Penguins are only found in the southern half of the earth. Most of the penguins can live up to 10-15 years but the Emperor can live up to 25 years and even more.</p> <p>Penguins are one of the few birds that can't fly, but the penguin is an excellent swimmer and can sleep under water.</p> <p>As many as 24 million penguins migrate to Antarctica each year. When it comes to keeping the Egg warm the Emperor has a different strategy[sic] instead of making a nest they balance it on their feet. The hottest penguin is the Gentoo penguin.</p>	Description

Table 6. 4-6 Text 47. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
10	4	6	17	3	0	83	158	4.9	9.3

6.4.1.4 Text 48. The Killer Whale, by Lily

Table 6. 4-7 Text 48. The Killer Whale (Lily, 6/R)

48. The Killer Whale (Lily, 6/R)	Stages
The Killer Whale is a marine mammal. This means it gives birth to live young. The Killer Whale's scientific name is Odontocete, but the scientific name for killer whale is Orcinis Orca. Amazingly[sic], they are on top of the food chain.	General classification
<p>The Killer Whale has striking black and white colourations. Some body parts include the fluke, which is at both ends of the tail, pectoral flippers, on both sides of the lower body, rostrum, at the front of the mouth, the eye spot, which is a white oval-like shape above and slightly behind the eye, and the dorsal fin is on top of the back. The male killer whale is known as a bull and averages around 5.8-6.7 metres, Whereas the females, cows, average around 4.9-5.8 metres, making the males larger.</p> <p>Killer Whales usually prefer cold water but in some cases, have been found in warm water areas. In fact, killer whales have strangely been found in freshwater rivers.</p> <p>Usually, killer whales hunt co-operatively and together. They are the top predators in the ocean, and feast on fishes, squids, seals, sea lions, walruses, birds, sea turtles, otters, penguins, polars and even reptiles. As top of the food chain, nothing eats them.</p> <p>Killer Whales are mature when they reach 6-10 years of age and they mate with any number of partners. Also because they are a mammal this wonderful whale gives birth to live young.</p> <p>Some interesting facts on the majestic creatures are:</p> <p>Cetacean is a Latin word that means whale. Baby whales are known as calves. To take a breath they have to go to the surface of the water. Killer Whales can swim up to 30 miles per hour. In 1977 a group of killer whales attacked a blue whale and ate it, and their black and white markings help them to hunt.</p> <p>As you now know, Killer Whales are fantastic and brilliant marine animals.</p>	Description

Table 6. 4-8 Text 48. Some whole text features

Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
21	12	9	34	2	0	191	316	5.6	9.3

6.4.2 Sentence-level information (Year 6 Reports)

Table 6. 4-9 Overview (Year 6 Reports)

Part A										
A	B	C	D	E	F	G	H	I	J	K
Text no.	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
45	22	13	9	38	4	0	172	308	4.5	8.1
46	25	16	9	38	2	0	182	335	4.8	8.8
47	10	4	6	17	3	0	83	158	4.9	9.3
48	21	12	9	34	2	0	191	316	5.6	9.3
Part B										
T	78	45	33	127	11	0	628	1117		
Av	19.5	11.25	8.25	31.75	2.75	0	157	279.25	5.0	8.9

Texts 45-48 are the Year 6 Reports and Table 6. 4-9 presents the collective sentence level data for the four Year 6 Reports. There are a total of 78 sentences, comprised of 127 ranking clauses, of which 44 are simplexes and 34 are complexes. Of these 127 ranking clauses, 11 contain embedded clauses – 11 simplexes and 0 complexes at this Year level. The ratio of total words (1117) to lexical items (628) is a little over 1.8:1, and the average lexical density across the 4 texts (clauses÷lexical items) is 5.0. The mean length of each clause is 8.9 words.

While usage of simplex clauses and complex clauses in sentence construction varies, using the data in the table above, the characterisation of this group is that the usage of clause complexes is less than the use of clause simplexes, with the overall ratio being roughly 3:4.

6.4.2.1 Sentence constituents (Year 6 Reports)

Table 6. 4-10 Sentences and clauses (Year 6 Reports)

A	B	C	D	E	F	G	H
Sentence length (clauses)	No of sentences this group	% of each clause length	With no explicit dependency (simplex)	With paratactic dependency (complex)	With hypotactic dependency (complex)	With dependency of both types (complex)	Total nexuses
1	45	57.7	45				
2	21	26.9		5	16		21
3	9	11.5		2	1	6	18
4	2	2.6				2	6
5	1	1.3				1	4
6							
7							
8							
Total	78	100	45	7	17	9	49
%			57.7	9.0	21.8	11.5	

In Table 6. 4-9, we see that the 78 sentences in the Year 6 Reports are made up of 45 clause simplexes and 33 clause complexes. In Table 6. 4-10 these bare figures are fleshed out. As is confirmed in Columns A to D of Table 6. 4-10, the most common number of clauses per sentence in the Year 6 Reports is one: there are 45 of these, comprising 57.7% of all sentences. (Column B). The next most common length is 2 clauses, (26.9%), followed by 3 clauses (11.5%), then 4 clauses (2.6%) and 5 clauses (1.3%). Clause popularity decreases with length (Columns B, C).

42.3% of sentences are clause complexes. In these clause complexes, sentences containing only hypotactic relations (17 sentences) are more common than clause complexes containing both types of relations (9 sentences), and than those containing only paratactic relations (7 sentences). The longer sentences contain both types of relations. In this data set, nexuses total 49 (Column H).

Table 6. 4-11 Dependency relations between clauses (Year 6 Reports)

Nexus type	Count	% of relation type
Paratactic	19	38.8
Hypotactic	30	61.2
Total	49	

Taking into account both the sentences with a single type of relation and those with relations of both types, the total number of paratactic nexuses and the total number of hypotactic nexuses may be determined. The results are tabulated in Table 6. 4-11. It turns out hypotactic nexuses constitute 61.2% and paratactic nexuses 38.8% of the whole.

Table 6. 4-12 shows usage of the logico-semantic relations, expansion and projection.

Table 6. 4-12 Taxis/logico-semantic relations in clause complexes (Year 6 Reports)

A	B	C	D	E	F	G
Logico-semantic relations			paratactic dependency	hypotactic dependency	clause form in hypotaxis	
type	sub-type	meaning			finite	non-finite
expansion	elaboration	exposition				
		exemplification				
		clarification				
		description		6	4	2
	extension	addition: additive	14			
		addition: adversative	5	1	1	
		variation		1		1
		alternation				
	enhancement	temporal		8	6	2
		spatial				
		manner		2		2
		cause		10	4	6
		conditional		1	1	
projection	locution idea	(speech)				
		(thought)		1		1
Total			19	30	16	14

Column D of Table 6. 4-12 shows the 19 instances of parataxis. The clause complexes are *expanded* only through *extension: addition* (14 additive and 5 adversative). There are no instances of paratactic *projection*.

Column E shows the 30 instances of hypotaxis. All types of *expansion* are utilised: *elaboration: description* (6), in *extension, :addition* (adversative 1) and *:variation* (1), and in *enhancement*, four sub-types – *:temporal* (8), *:manner* (2), *:cause* (10) and *:conditional* (1). There is 1 instance of *projection: idea* (reported thought). These

30 hypotactic clause complexes employ dependent clauses of both finite (16) and non-finite forms (14).

We now turn now from the make-up of sentences in terms of ranking clauses to the occurrences and placements of embedded clauses.

Table 6. 4-13 Dispersion and count of ranking clauses (Year 6 Reports)

A	B	C	D	E
Sentence length (ranking clauses)	No of sentences this group	Total ranking clauses	Ranking clauses contain embedded clause simplex or clause complex	Ranking clauses do not contain embedding
1	45	45	5	40
2	21	42	4	38
3	9	27	1	26
4	2	8		8
5	1	5	1	4
6				
7				
8				
Total	78	127	11	116
%			8.7	91.3
Average per text	19.5	31.75	2.75	29

Table 6. 4-13 shows that, in sentences of any length (Columns A, B and C), the number of clauses that do not contain embedding (Column E) substantially exceed the number that do (Column D). Over the text-group as a whole, 116 clauses, or 91.3%, do not contain embedding; 11 (or 8.7%) do.

It is that 11 (or 8.7%) of ranking clauses that contain embedding that we are now interested in. We extend the analysis of Table 6. 4-13, explicating in the main, Column D of that table. Table 6. 4-14 tallies (Column B) and shows the forms of the embedding (Column C) and where the embedding functions in the functional constituent element of its host clause (Columns D and E).

Table 6. 4-14 Embedding in ranking clauses (Year 6 Reports)

A	B	C	D	E	F
Ranking clause contains/ Embedding options	No	Form options	Embedding occurring in/as Participant	Embedding occurring in/as Circumstance	Examples
embedded clause/s as Qualifier in a nominal group	7	[[]Q	7		
		[[[]Q]Q			
		multiQ			
		[[//]Q			
		[[// //]Q			
		[[// // //]Q			
embedded clause/s as a whole nominal group	3	[[]clH	3		
	1	[[[]Q]clH	1		
		multiclH			
		[[//]clH			
		[[// //]clH			
		[[// // //]clH			
		[[// []Q]clH			
		[[<<>>]clH			
both		mixed			
	11	Totals	11		
Summary					
Qualifier in a nominal group	7	63.6%	7		
Whole nominal group	4	36.4%	4		
Total	11	100%	11		
			100%		

In the Year 6 Reports, 11 of 127 clauses contain embedded clauses. Table 6. 4-14 shows 7 of the 11 instances being of the embedded clause acting as a Qualifier in a nominal group, denoted here with a final Q. All instances occur as Participants. There are 4 instances where the whole nominal group is realised by an entire embedded clause, one of which itself contains an embedded clause as qualifier to a noun group. These 4 usages are all Participants. As is confirmed in Columns D and E, embedding only occurs in Participants in these texts.

Table 6. 4-15 below essentially provides a different way of looking at the data in Table 6. 4-14, deconstructing the complexity of the embedding, and providing examples of the clause forms.

Table 6. 4-15 Embedded clauses (Year 6 Reports)

A	B	C	D
Total clause embeddings	Embedded construction options	Samples showing different constructions of embeddings within ranking clauses	Total individual clauses embedded
11	simplexes		12
10	[[]]	There are many types of penguins [[that live in Antarctica]] like the Adelie, Emperor... (47. Kay) This means [[it gives birth to live young]]. (48. Lily)	10
	[[]]c (multiple in one clause)		
	[[]]el (multiple in one element/group)		
1	[[e]] (with an embedded clause)	Some other interesting facts about this amazing creature are, [[that they are the only animals in Antarctica [[that breed in winter]]]]. (45. Belle)	1
	e[[]]Q (form of [[e]])	– the only animals...[[that breed in winter]] – (45. Belle)	1
	complexes		
	[[// //]]		
	[[// // //]]		
	[[// // [[]]]]		
	[[<>>]]		
	incl		
11	Total		12
Summary of complexity of embedded clauses			
simplexes	11	100%	Average per text: 2,75
complexes			Average per text: 0
Totals	11	100%	Average per text: 2.75

Now we consider the embedded clauses in terms of complexity (Table 6. 4-15). Most (10) of the simplexes are straightforward and all occur in separate clauses. The eleventh, however, is buried within another clause simplex: (*Some other interesting facts about this amazing creature are, [[that they are the only animals in Antarctica [[that breed in winter]]]].* (45. Belle)). Thus we have a count of 11 in Column A and a count of 12 in Column B.

Table 6. 4-16 Detail of use of embedded clauses (Year 6 Reports)

Placement shorthand	How embedding manifests	Simplex/individual clause count	Examples	
in_ngQ_(P)	as qualifier in a nominal group in a Participant	8	... and the baby chick [[inside]] can die. (45. Belle)	actor
			Penguins have a sickness [[called pesticide]] (45. Belle)	attribute: possessor (poss:pr/carr:p'r)
			Animals [[that live in deserts]] have adaptations (46. Jack)	carrier: possessor (poss:pr/carr:p'r)
			my already thorough information [[above]] . (46. Jack)	goal
			There are many types of penguins [[that live in Antarctica]] like the Adelie, Emperor, King, Humboldt, Yellow-eyed, Gentoo, Chinstrap, Royal, little and many others. (47. Kay)	existent
			Penguins are one of the few birds [[that can't fly]] . (47. Kay)	attribute
			... [[the only animals in Antarctica [[that breed in winter]]]] . (45. Belle)	value
			Cetacean is a Latin word [[that means whale]] . (48. Lily)	value
in_ngQ_(C)				
in_ngQ_(e)_(P)				
in_ngQ_(e)_(C)				
clH_(P)	as whole nominal group in a Participant	4	An interesting fact is [[that the Emperor Penguins are great divers]] . (45. Belle)	attribute
			Some other interesting facts about this amazing creature are, [[that they are the only animals in Antarctica [[that breed in winter]]]] . (45. Belle)	attribute
			When it comes to [[keeping the Egg warm]] , the Emperor has a different stratige (47. Kay)	attribute (cir:att)
			This means [[it gives birth to live young]] . (48. Lily)	value
clH_(C)				
in_XX_(P)				
in_XX_(C)				
Total		12		
Summary of function of embedding and as Participant or Circumstance				
as Qualifier in a nominal group in a Participant		8		
as whole nominal group in a Participant		4		
as Qualifier in a nominal group in a Circumstance				
as whole nominal group in a Circumstance				
Total		12		

A final perspective on the embedded clauses is provided by Table 6. 4-16, which reveals how the embedding is manifested (Column B; shorthand in Column A) for each of the 12 instances of embedded clauses in Year 6 Reports. From Column C it may be seen 8 of the 12 (66%) present as *Qualifier in a nominal group in a participant*, in a straightforward noun group (in_ngQ_(P)); and the remaining 4 or 34% are the *whole nominal group in a participant* (clH_(P)). (Note, there are 6 other manifestations identified which do not occur in Year 6 Reports.) Column D gives examples.

6.4.2.2 General description (Year 6 Reports)

The Year 6 Reports have been characterised according to average length in terms of sentences (19.5) and individual ranking clauses (31.75) and by a simple word average (279) which has been divided into lexical (157) and, by calculation, grammatical (55) items. Lexical density has been calculated (5.0). The ranking clauses have been further described by average usage of clause-simplexes (11.25) and clause-complexes (8.25). The explicit logical relations between clauses in clause-complexes have also been identified and found to be divided between paratactic and hypotactic in proportions of 38.8% to 61.2%.

Embedded clause usage has been tallied from two perspectives: (i) number of clauses containing embedding and (ii) number of embedded clauses. The average per text for (i) is 2.75: clauses containing embedded simplexes (2.75) those with clause complexes (0). The average per text for (ii) is (2.75): embedded simplexes (2.75) and embedded complexes (0). When employed, embedded clauses are used both as qualifiers in a nominal group (63.6%) and as Whole nominal groups (36.4%). They are involved in (or as) Participants (100%) but not in (or as) Circumstances (0%).

In summary, in Table 6. 4-9, some general features of the Year 6 Reports are gathered together and summarised. The rest of the tables in Section 6.4.2 supply further detail about those features as well as indicating which further analysis will be potentially profitable in characterising the features of the text group – for example, and most explicitly, by presenting embedded clauses, we foreshadow the next area of analysis: a look at the Experiential elements of the texts (Section 6.4.3), looking first at the functional elements in a clause (Processes, 6.4.3.1; Participants, 0;

Circumstances, 0), and then at the breakdown of the nominal group, 6.4.3.4). Now we turn to look more closely at the functional constituents of the sentences/clauses.

6.4.3 Clause constituents – Transitivity (Year 6 Reports)

6.4.3.1 Processes (Year 6 Reports)

6.4.3.1.1 Functional types of Processes (Year 6 Reports)

Table 6. 4-17 Process types (Year 6 Reports)

A	B	C	D	E	F
Process type	Ranking clauses	Embedded clauses	All clauses	% Ranking	% All
Principal					
material	60	6	66	47.2	48.2
mental	3		3	2.4	2.2
mental: cognition	2		2	1.6	1.5
mental: desideration	1		1	0.8	0.7
mental: emotion					
mental: perception					
relational	59	4	63	46.5	46.0
R attrib: intens	23	1	24	18.1	17.5
R attrib: circ	9		8 9	7.1	6.6
R attrib: poss	12		12	9.4	8.8
R id: intens	13	3	16	10.2	11.7
R id: circ	2		3 2	1.6	1.5
R id: poss					
Subtotal(principal)	122	10	132	96.1	96.4
Subsidiary					
behavioural	1		1	0.8	0.7
verbal					
existential	4		4	3.1	2.9
Subtotal(subsidiary)	4 5		4 5	3.9	3.6
Total	127	10	137	100	100
%	92.7	7.3	100		
Count of different Process types used	4	2	4		

We now turn to Transitivity and Process types, as set out in Table 6. 4-17. To take in the ‘big picture’ first, it is useful to start at the second and third last rows. Here we see there are 127 ranking clauses and 10 non-ranking clauses, making a total of 137; in terms of proportions, ranking clauses make up 92.7% of the clauses and non-ranking 7.3%.

Of the principal ranking Processes, material and relational are used equally frequently, 60 times each, followed far behind by mental (3). The subsidiary Processes also provide 5 instances, 4 existential and 1 behavioural. Comparing with Column C, there are far more ranking clauses, 127, than embedded clauses, 10. The embedded clauses are distributed between material (6) and relational (4). There are no subsidiary embedded clauses.

Within the relational Processes in ranking clauses, there is a reliance on attributive processes: *attributive intensive processes* (23) are used most, followed by *attributive possessive* (12) and *attributive circumstantial* (8). Identifying processes are used more sparingly: *identifying intensive* (13), *identifying circumstantial* (3), *identifying possessive* (1). There are four (4) embedded instances, three *identifying intensive* (3), and one *attributive intensive* (1). With respect to the few mental Processes, the order of frequency of appearance in ranking clauses is *cognition* (2) and *desideration* (1); none are embedded.

The combination of the ranking and embedded clauses is given in Columns D and F of Table 6. 4-17. The effect of the embedded clauses gives a slight dominance to the material Processes (48.2%) over the relational Processes (46.0%). Existential are the next most used (2.9%), with mental Processes a meagre 2.2%. In overall approximate terms, however, half the Processes are material and half are relational.

Across clause types, the frequency of use of types of Processes is:

material	66	(48.2%)
relational	63	(46.0%)
existential	4	(2.9%)
mental	3	(2.2%)
behavioural	1	(0.7%)
verbal	0	(0%)
Total	137	(100%)

6.4.3.1.2 Realisation – form of Processes (Year 6 Reports)

Table 6. 4-18 Process form (Year 6 Reports)

A	B	C	D	E	F
Type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
A Complexity:					
Verbal group simplexes	107	10	117	84.3	85.4
Verbal group complexes	20		20	15.7	14.6
Total	127	10	137	100	100
B Other features:					
Phrasal verbs	11	1	12		
Modal finites	3		3		
modal adjuncts	8		8		

Whether in ranking or non-ranking clauses, verbal group simplexes (105) greatly outnumber verbal group complexes (22) (Table 6. 4-18). In total, simplexes are 4 times more common than complexes (Column F). Other features, in order of frequency in ranking clauses (Column B), are phrasal verbs (11) and modal adjuncts (8) and modal finites (3); the lone feature in non-ranking clauses is phrasal verbs (1) (Column C).

Table 6. 4-19 complements Table 6. 4-18 by explicating the types of complexity found in the verbal group complexes, and Table 6. 4-20 collates instances found in the texts.

Table 6. 4-19 Verb complexing summary (Year 6 Reports)

A	B	C	D	E	F
Taxis / logico-semantic type of complexing	Ranking clauses	Embedded clauses	All clauses	% Ranking clauses	% All clauses
Parataxis					
expansion elaboration					
expansion extension					
expansion enhancement					
projection not applicable					
Hypotaxis	18		18	90	90
expansion elaboration	7		7	35	35
expansion extension	11		11	55	55
expansion enhancement					
projection					
Multiple complexing	2		2	10	10
Total	21		21	100	100

To summarise verbal group complexing, Table 6. 4-19 Column F, 90% of the total involve hypotaxis, 10% multiple, and 0% parataxis. Regarding hypotaxis, a total of 11 cases involve *expansion: extension* and 7 *expansion: elaboration* (Column D). There are 2 instances of multiple complexing in the verb. Of the 21 total cases, none occur in embedded clauses (Column C). Instances are set out in detail in Table 6. 4-20.

Table 6. 4-20 Instances of complexing in the verb (Year 6 Reports)

Taxis / logico-semantic type	Count	Sample of verb complexing in the Process	Type of Process	Meaning of complexing
Parataxis				
expansion elaboration				
expansion extension				
expansion enhancement				
projection				
Hypotaxis	18			
expansion elaboration	7	<<if the egg is dropped on the cold ice>>, (45. Belle)	material	passive elab
		Most deserts are located in Africa and the middle east (46. Jack)	material	
		because a lot of the rain is evaporated by the heat (46. Jack)	material	
		Penguins are only found in the southern half of the earth. (47. Kay)	material	
		The male killer whale is known as a bull (48. Lily)	R id: intens	
		but in some cases, have been found in warm water areas. (48. Lily)	material	
		In fact, killer whales have strangely been found in freshwater rivers. (48. Lily)	material	
expansion extension	11	and they can hold their breath for 22 minutes. (45. Belle)	material	gen ext can
		and <<>> it can freeze over (45. Belle)	material	
		and the baby chick [[inside]] can die . (45. Belle)	material	
		which can kill humans. (45. Belle)	material	
		During the day temperatures can easily reach 45oc during the day and a freezing -12oc during the night. (46. Jack)	R attrib: circ	
		Most of the penguins can live up to 10-15 years (47. Kay)	material	
		but the Emperor can live up to 25 years and even more. (47. Kay)	material	
		Penguins are one of the few birds [[that can't fly]], (47. Kay)	material[[]]	
		and can sleep under water. (47. Kay)	behavioural	
		Killer Whales can swim up to 30 miles per hour. (48. Lily)	material	
		and their black and white markings help them to hunt . (48. Lily)	material	caus ext reussive
expansion enhancement				
Multiple	2	They can live to be over 40. (45. Belle)	R attrib: circ	HX: gen ext can / HX: gen elab keep
		when they can come out and feed . (46. Jack)	material	HX: gen ext can=> modality / PX: ext and or
Total	20			

6.4.3.2 Participants (Year 6 Reports)

6.4.3.2.1 Functional types of Participants (Year 6 Reports)

Participant roles are set out in Table 6. 4-21. The numbers in ranking clauses are set out in Column C, non-ranking clauses in Column D, and the total in Column E. Column C as a ratio with the total ranking clauses appears in Column F and as a ratio with the total clauses, ranking and non-ranking, appears in Column G.

Table 6. 4-21 Participant roles (Year 6 Reports)

A	B	C	D	E	F	G
Process type	Participant roles	Ranking	Embedded	All	% Ranking	% Total
material	actor	42	5	47	21.4	22.1
	goal	28	2	30	14.3	14.1
	<i>oblique</i> recipient					
	client					
	scope	3		3	1.5	1.4
	initiator	1		1	0.5	0.5
	attribute: depictive					
	attribute: resultative	1	1	2	0.5	0.9
mental	senser	3		3	1.5	1.4
	phenom	1		1	0.5	0.5
	<i>oblique</i> inducer					
relational: attrib	carrier	40	1	41	20.4	19.2
	attribute	43	3	46	21.9	21.6
R attrib: intens	carrier	19	1	20	9.7	9.4
	attribute	20	1	21	10.2	9.9
R attrib: circ	carrier (cir:att)	3		3	1.5	1.4
	attribute (cir:att)	3	2	5	1.5	2.3
	carrier (cir:pr)	7		7	3.6	3.3
	attribute (cir:pr)	8		8	4.1	3.8
R attrib: poss	carrier: possessed(poss:att)					
	attribute: possessor(poss:att)					
	carrier: possessor(poss:pr/carr:p'r)	11		11	5.6	5.2
	attribute: possessed(poss:pr/carr:p'r)	12		12	6.1	5.6
	carrier: possessed(poss:pr/carr:p'd)					
	attribute: possessor(poss:pr/carr:p'd)					
<i>oblique</i>	attributor					
	beneficiary					
relational: ident	token	15	3	18	7.7	8.5
	value	15	2	17	7.7	8.0
R id: intens	token	13	3	16	6.6	7.5
	value	13	2	15	6.6	7.0
R id: circ	token(circ)	2		2	1.0	0.9
	value(circ)	2		2	1.0	0.9
R id: poss	token(poss)					
	value(poss)					

<i>oblique</i>	assigner					
behavioural	behave					
<i>oblique</i>	behaviour					
	phenomenon(b)					
verbal	sayer					
<i>oblique</i>	receiver					
	verbiage					
	target					
existential	existent	4		4	2.0	1.9
	Total	196	17	213	100	100
	Count of different Participant roles used	12	7	12		
Summary of Participant roles used						
Process type	Participant role	Ranking	Embedded	All	% Ranking	% Total
material	actor, goal; range, recipient, attribute; initiator	75	8	83	38.3	39.0
mental	sensor, phenomenon; inducer	4		4	2.0	1.9
relational		113	9	122	57.7	57.3
attribution	carrier, attribute, beneficiary, attributor	83	4	87	42.3	40.8
identification	token, value; assigner	30	5	35	15.3	16.4
behavioural	behaviour; phenomenon(b)					
verbal	sayer, receiver; verbiage, target					
existential	existent	4		4	2.0	1.9
		196	17	213	100	100

The main Participant roles are of course taken by those that are directly involved with the Process, in descending order of frequency of use.

	Processes %	Participants %
material	48.2	39.0
relational	46.0	57.3
existential	2.9	1.9
mental	2.2	1.9
behavioural	0.7	0
verbal	0	0
Total	100	100

We are interested in the more obliquely involved Participants, and our observations will revolve around those.

Table 6. 4-22 collates information about the use of the indirectly involved Participants that are counted in Table 6. 4-21. Column A again sections the table according to Process type: material, mental, relational, behavioural, verbal, existential, and relational Processes here are again separated into relation-type

(attributive or identifying). Column B again lists Participant roles associated with the Process types in Column A, this time separating them into directly and obliquely involved types. Columns C and D record the usage. This allows a window into where different Year group texts are broadening the meaning in their clauses through an increased use of oblique Participant roles.

Table 6. 4-22 Range of Participant roles used, directly and obliquely involved with the Process (Year 6 Reports)

Different Participant roles used in Year 6 Reports						
A	B			C	D	E
Process type	Associated Participant roles available			Direct used	Oblique used	Total used
	(i) direct	(ii) oblique	Total			
material	2	6	8	2	3	5
mental	2	1	3	2		2
relational	4	3	7	4		4
attributive	2	2	4	2		2
identifying	2	1	3	2		2
behavioural	1	2	3			
verbal	2	2	4			
existential	1	0	1	1	0	1
Total	12	14	26	9	3	12

In Table 6. 4-22, Column C echoes exactly B(i), showing that those Participant roles that are directly related to the process types are all used in the Year 6 Reports. This accounts for 9 of the Participant roles used. The remaining 3 are used as per Column D, which shows that the material clauses employ 3 Participants that are obliquely involved.

6.4.3.2.2 Realisation – form of Participants (Year 6 Reports)

Table 6. 4-23 Summary of forms taken by Participants (Year 6 Reports)

B	C	D	E	F	G	H	I	J	K	L
Participants in ranking clauses					Participants in embedded clauses					Both
Nominal group			Prepositional phrase	Adverbial group	Nominal group			Prepositional phrase	Adverbial group	Total
noun group	adjectival group	clause			noun group	adjectival group	clause			
174	15	4	3		14	2			1	213
193					16					
196					17					

The Year 6 Reports do not surprise in the realisation of their Participants – a majority are nominal groups (193 in ranking clauses, and 16 in embedded clauses, making 98.1%). Prepositional phrases are used 3 times (1.9%), and an adverbial group is used once.

We can now distinguish between the types of nominal groups employed. The most straightforward realisation of Participants is through the noun group, and this is reflected in the Year 6 Report texts, both in the ranking clauses, where 174 of the 193 nominal groups are noun groups, and in the non-ranking clauses, where 14 of 16 have this form; overall, of the total Participants, 188 of 213 forms fall in this category – 88.3%. Second by frequency are adjectival groups (15 in ranking clauses and 2 in non-ranking clauses = 17), constituting 8.1% of nominal groups (209) and 8% of the Participants in all clauses (213). Whole clauses make up 4 of the 213 Participants (1.9%); Prepositional phrases account for 3 (1.4%) and adverbial groups for one (0.4%).

Table 6. 4-24 Detail of forms taken by Participants (Year 6 Reports)

Table 6. 4-24 Detail of forms taken by Participants (Year 6 Reports)

	Participants in ranking clauses					Participants in embedded clauses					Both
	Nominal group			Prep phrase	Adv group	Nominal group			Prep phrase	Adv group	Total
	noun group	adj. group	clause			noun group	adj. group	clause			
Nominal groups											
One group	165	13	4	3		14	2				201
Single function (Head only)	69	7	4			9	2				91
Pre-mod + Head (no post-mod)	77	5		3		4					89
Post-mod (may be pre-mod)	19	1				1					21
Two+ groups	9	2									11
Adverbial groups											
One group										1	1
Single function (Head)										1	1
Pre-mod + Head											
Post-mod											
Two+ groups											
Summary of forms taken by Participants											
Noun groups	174					14					188
Adj. nominal groups		15					2				17
Clauses			4								4
Prepositional phrases				3							3
Adverbial groups										1	1
Total all	196					17					213

Table 6. 4-23 is expanded into Table 6. 4-24, concentrating on the make-up of the groups. The most frequently used form for Participants involves one nominal group. Looking at that section, groups consisting of Head only (91 of 201 or 45.3%) are used roughly equally as those including also some form of pre-modification (89 of 201 or 44.3%). Making up the numbers of the Head-only groups are the noun groups with 69 in ranking clauses, 9 in embedded; adjectival nominal groups occur 7 times in ranking and 2 times in embedded; clause-as-head occurs 4 times, all in ranking clauses. Nominal groups that contain a pre-modifying function including 81 noun groups (of which 4 are embedded), 5 adjectival groups and 3 in prepositional phrases. Nominal groups with a post-modifying function occur 21 times (or 10.4%), including 1 adjectival group.

Usage of more than one nominal group in a nominal group complex as Participant occurs 11 times, all in ranking clauses, 9 times involving noun groups and twice involving an adjectival group (representing 5.1% of the total Participants).

There is one Adverbial group used as a Participant in an embedded clause (0.5%).

To sum up the way that Participants in Year 6 Reports are realised, of the 213 in total, 188 are noun groups, 17 are adjectival groups, 4 are realised by a whole clause and 3 are realised by prepositional phrases and 1 is realised by an adverbial group.

Examples of the forms discussed through Table 6. 4-24 are presented in Table 6. 4-25. Included are representative examples of each form.

Table 6. 4-25 Examples of forms taken by Participants (Year 6 Reports)

Function feature	Form	Example	Participant role	Note
Nominal groups / prepositional phrases				
One group				
Head only (including clause as Head)	noun group	adaptations (46. Jack)	attribute: possessed(poss:pr/car r:p'r)	sub –mod in
	noun group	Penguins (47. Kay)	goal	
	noun group	calves (48. Lily)	value	

with Pre-mod	clause	[[that the Emperor Penguins are great divers]]. (45. Belle)	attribute	macro-thing: Wh cl
	clause	[[that they are the only animals in Antarctica [[that breed in winter]]]]. (45. Belle)	attribute	
	clause	[[keeping the Egg warm]] (47. Kay)	attribute	
	clause	[[it gives birth to live young]]. . (48. Lily)	value	
	noun group	a small food source (45. Belle)	attribute: possessed (poss:pr/ca rr:p'r)	
	noun group	their black and white markings (48. Lily)	initiator	
	noun group	very little precipitation (46. Jack)	goal	
	noun group	less than 50cm of rain (46. Jack)	existent	Focus – selecting
	nominal	a lot of the rain (46. Jack)	goal	Focus – selecting
	noun group	many types of penguins [[that live in Antarctica]] like the Adelie, Emperor, King, Humboldt, Yellow-eyed, Gentoo, Chinstrap, Royal, little and many others. (47. Kay)	existent	Focus – selecting
	noun group	the size of a young child. (47. Kay)	attribute	Focus – dimensional
	noun group	one of the few birds [[that can't fly]]. (47. Kay)	attribute	Focus – selecting
	prep phrase	on top of the food chain. (48. Lily)	carrier (cir:att)	Focus – perspective
	noun group	a group of killer whales . (48. Lily)	actor	Focus – re-counting
Post-mod	noun group	The record for this penguin (45. Belle)	token	
	noun group	Some other interesting facts [about this amazing creature] (45. Belle)	token	
	noun group	the most extreme weather [in the world]. (46. Jack)	attribute: possessed(poss:pr/car r:p'r)	
	noun group	The heat from the earth (46. Jack)	actor	
	nominal	Soils [in cold basin deserts] (46. Jack)	carrier: possessor(poss:pr/car r:p'r)	(qualifying phrase contains expansion)
	noun group	the population [of all deserts] (46. Jack)	token	
	noun group	the scientific name [for killer whale] . (48. Lily)	value	
	noun group	the top predators [in the ocean], . (48. Lily)	value	
	noun group	6-10 years [of age] . (48. Lily)	carrier (cir:pr)	
	noun group	Some interesting facts [on the majestic creatures] . (48. Lily)	carrier	
	noun group	the baby chick [[inside]] (45. Belle)	actor	
	noun group	a sickness [[called pesticide]] (45. Belle)	attribute: possessed(poss:pr/car r:p'r)	
	nominal	Animals [[that live in deserts]] (46. Jack)	carrier: possessor(poss:pr/car r:p'r)	
	nominal	my already thorough information above.	goal	

		(46. Jack)		
	noun group	one of the few birds [[that can't fly]]. (47. Kay)	attribute	
	noun group	a Latin word [[that means whale]]. . (48. Lily)	value	
	noun group	many types of penguins [[that live in Antartica]] [like the Adelie, Emperor, King, Humboldt, Yellow-eyed, Gentoo, Chinstrap, Royal, little and many others]. (47. Kay)	existent	QCL/QPH with para elab in QPH
Two+ groups				Taxis/LS at group rank
Pre-mod Head only	noun group noun group	The Emperor Penguin (Aptenodytes fosteri) (45. Belle)	carrier	para elab
Pre-mod Pre-mod Post-mod	noun group noun group noun group	a soft orange neck, with a black back, wings, and a beak with a tinge of orange. (45. Belle)	attribute: possessed(poss:pr/car r:p'r)	para elab
Pre-mod Pre-mod	adj group adj group	around 1 metre long, and 3 kilograms (heavy). (45. Belle)	attribute	para exten
Post-mod [Pre-mod Pre-mod Pre-mod Pre-mod]	noun group with group complex in qualifier	Many animals in Antarctica .. such as Killer whales, Blue whales, leopard seals, and the walrus. (45. Belle)	actor	hyp elab [para elab para elab para elab]
Post-mod Post-mod	noun group noun group	harsh hot tempretures during the day and freezing cold during the night. (46. Jack)	attribute: possessed(poss:pr/car r:p'r)	para exten
Pre-mod Pre-mod	noun group noun group	The Sahara (the second largest desert) (46. Jack)	token(circ)	para elab
Post-mod Post-mod	noun group noun group	45oc during the day and a freezing -12oc during the night. (46. Jack)	attribute (cir:pr)	para exten
Head only Head only	adj group adj group	warm and very hot (46. Jack)	attribute	para exten
Post-mod Post-mod Post-mod	noun group noun group noun group	the lack of water, the extreme tempreture and shortage of food. (46. Jack)	goal	para exten para exten
	noun group	the fluke // which is at both ends of the tail, pectoral flippers, on both sides of the lower body, rostrum, at the front of the mouth, the eye spot // which is a white oval-like shape above and slightly behind the eye //, and the dorsal fin is on top of the back. . (48. Lily)	attribute: possessed(poss:pr/car r:p'r)	para exten
	noun group	the females, cows, . (48. Lily)	carrier	para elab
Adverbial groups				
One group				
Head only	adv group	inside <i>in</i> the baby chick [[inside]] can die. (45. Belle)	attribute (cir:att)[[]]	
Pre-mod				
Post-mod				
Two+ groups				

6.4.3.3 Circumstances (Year 6 Reports)

6.4.3.3.1 Functional types of Circumstances (Year 6 Reports)

Table 6. 4-26 Types of Circumstances (Year 6 Reports)

A	B	C	D	E	F
Circumstance type	Ranking	Embedded	All	% Ranking	% All
accomp: additive					
accomp: comitative					
angle: source					
angle: viewpoint					
cause: behalf					
cause: purpose					
cause: reason	1		1	2.0	1.9
contingency: concession					
contingency: condition					
contingency: default					
extent: distance					
extent: duration					
extent: frequency	1		1	2.0	1.9
location: place	19	2	21	37.3	38.9
location: time	19	1	20	37.3	37.0
manner: comparison					
manner: degree	2		2	3.9	3.7
manner: means	3		3	5.9	5.6
manner: quality	3		3	5.9	5.6
matter					
role: guise	3		3	5.9	5.6
role: product					
Total	51	3	54	100	100
%	94	6	100		
Count of different types of Circumstances used	8	2	8		

Types of Circumstances are shown in Table 6. 4-26, separated into ranking and other clauses. Altogether, 54 Circumstances are used in these texts, 3 in embedded clauses. In terms of frequency of occurrence, first place is almost held by jointly by location:place (21 occurrences, or 38.9%) and location:time (20 occurrences, or 37.0%). Next most frequently used are manner:means, manner:quality and role:guise (3 or 5.6% each). Next in usage are the following in ones and twos: manner:degree (2), extent:frequency (1) and cause:reason (1). Of the 22 Circumstance types listed, these 8 are used in these Year 6 Reports.

6.4.3.3.2 Realisation – form of Circumstances (Year 6 Reports)

Table 6. 4-27 Summary of forms taken by Circumstances(Year 6 Reports)

B	C	D	E	F	G	H
Circumstances in ranking clauses			Circumstances in embedded clauses			All
Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
46	1	4	3			54
51			3			

The forms taken by the 53 Circumstances identified are listed in Table 6. 4-27. Prepositional phrase dominate, with 44 in ranking clauses and 2 in other clauses of the total of 46. Next come noun groups, with 3 in ranking clauses and 1 in other clauses. To complete the picture, there are 4 adverbial groups in ranking clauses.

Table 6. 4-28 Detail of forms taken by Circumstances (Year 6 Reports)

A	B	C	D	E	F	G	H
	Circumstances In ranking clauses			Circumstances in embedded clauses			Both
	Prepositional phrase	Noun group	Adverbial group	Prepositional phrase	Noun group	Adverbial group	Total
Nominal groups							
One group	44	1		3			48
Single function (Head only)	10			3			13
Pre-mod + Head (no post-mod)	30	1					31
Post-mod (may be pre-mod)	4						4
Two+ groups	2						2
Adverbial groups							
One group			3				3
Single function (Head only)			3				3
Pre-mod + Head (no post-mod)							
Post-mod (may be pre-mod)							
Two+ groups			1				1
Summary of forms taken by Circumstances							
Prepositional phrases	46			3			49
Noun groups	1						1
Adverbial groups			4				4
Total all	51			3			54

In Table 6. 4-28 we see of that the 50 nominal groups involved in Circumstances, 48 are constructed using a single group and 2 involve a group complex of two or more groups. The use of pre-modification (31) is favoured over the bare form (13). Post-

modification is also used (4). Adverbial groups are used: group simplexes, using Head alone (3) and group complex (1).

Table 6. 4-29 Examples of forms taken by Circumstances (Year 6 Reports)

Circumstance feature	form	example	type	note
Prepositional phrases / nominal groups				
One group				
Head only (including clause as Head)		per year (46. Jack)	extent: frequency	
		since 1985 (46. Jack)	location: time	
		to Antarctica (47. Kay)	location: place	
With Pre-mod		with their mother (45. Belle)	location: place	
		in warm, yet not scorching burrows (46. Jack)	location: place	para exten in Epithet
		in freshwater rivers (48. Lily)	location: place	
	prep phrase	in the months of May and June. (45. Belle)	location: time	Focus – classifying
	prep phrase	in the form of fire, cold weather and sudden infrequent yet intense rain. (46. Jack)	role: guise	Focus – classifying
	prep phrase	in the different types of deserts (46. Jack)	location: place	Focus – classifying
	prep phrase	at the height of 35cm (47. Kay)	manner: degree	Focus – dimensional
	prep phrase	in the southern half of the earth (47. Kay)	location: place	Focus – perspective
	prep phrase	As top of the food chain (48. Lily)	role: guise	Focus – perspective
	prep phrase	to the surface of the water (48. Lily)	location: place	Focus – dimensional
qualifying phrase	prep phrase	in Antarctica, in the Southern Hemisphere (45. Belle)	location: place	
	prep phrase	with a blanket of sand (46. Jack)	manner: means	
	prep phrase	in the form of fire, cold weather and sudden infrequent yet intense rain (46. Jack)	role: guise	
	prep phrase	with any number of partners (48. Lily)	accomp: comitative	
	prep phrase	up to 30 miles per hour (48. Lily)	manner: degree	
Two+ groups				Taxis/LS at group rank
With Pre-mod With Pre-mod With Post-mod	preposition plus noun group complex	in Central Australia, the west coast of South America and North American states such as Nevada and Utah. (46. Jack)	location: place	para exten para exten
With Pre-mod Head only	preposition plus noun group complex	up to 25 years and even more. (47. Kay) prepositional group	location: time	para exten
Adverbial groups				
One group				

Head only	adv group	together (45. Belle)	manner: quality	
	adv group	underground (46. Jack)	location: place	
Pre-mod				
Post-mod				
Two+ groups				
Head only Head only	adv group adv group	co-operatively and together. (48. Lily)	manner: quality	para exten

6.4.3.4 The Nominal Group – a special case: (Year 6 Reports)

In this section are collected together the nominal groups from the Participants and Circumstances, from both ranking and embedded clauses, from the Year 6 Reports.

Table 6. 4-30 Nominal groups (Year 6 Reports)

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	86	14	30	130	24.0	36.3
Head=Thing	71	12	25	108	19.8	30.2
Head≠Thing, elliptical	8		2	10	2.2	2.8
Head≠Thing, Epithet	7	2	3	12	2.0	3.4
Pre-mod + Head only	116	4	67	187	32.4	52.2
Head=Thing	99	4	57	160	27.7	44.7
Head≠Thing, elliptical						
Head≠Thing, Epithet	5			5	1.4	1.4
Head≠Thing, focus	12		10	22	3.4	6.1
Post-modification	24	1	16	41	6.7	11.5
with qualifying phrase	17		11	28	4.7	7.8
with qualifying clause	6	1	5	12	1.7	3.4
with multiple qualifiers	1			1	0.3	0.3
Total	226	19	113	358	63.1	100

Looking at the ‘big picture’ presented in Table 6. 4-30, in Year 6 Reports, there are 358 instances of nominal groups (Column E). Use of nominal groups with some pre-modification is the most used, with 52.2% of instances displaying this form. A smaller percentage, 36.3%, consists of the Head only, and 11.5% have a post-modifier (Column G).

Now we will look briefly at the three sections of Table 6. 4-30, starting with the most used form. Of the nominal groups consisting of pre-modifier + Head (52.2%), by far the most have Head conflated with Thing (160 of 187, or 85.6%). The remaining instances involve the use of focus (an extended numerative) – (22 of 187, or 11.8%) and instances where the Head is conflated with Epithet (5 of 187 or 2.7%). Second most used are Head-only groups. Of these, most are conventional noun groups, where the Head conflates with Thing (108 from 130, or 83.1%). A few are adjectival nominal groups, where the Thing is elided and the Head conflates with an Epithet (12 of 130, or 9.2%) and some have the Head conflated with an element other than an Epithet (10 of 130, or 7.6%). Thirdly, in the 11.5% of clauses that contain a post-modifying element, use of a qualifying phrase (28 of 41 or 68.3%) is highest, and then use of a qualifying clause (12 of 41 or 29.2%). There is one instance which makes use of multiple qualifiers (1 of 41 or 2.4%).

Examples of nominal groups appear in Table 6. 4-31. The ‘Total’ and ‘% Total’ Columns from above are shifted to the left-most position to allow room for examples. The final Column provides brief notes pertinent to the particular example. The ‘post-modifying’ section has been further divided to note the action surrounding the Head.

Table 6. 4-31 Examples of nominal groups (Year 6 Reports)

Total	% Total	Feature	Examples	Notes/type
130	36.3	single function – Head only		
108	30.2	Head=Thing	pronouns (41.7%); common nouns (39.8%); proper nouns (18.5%).(Some multi-word items e.g. <i>Aptenodytes fosteri</i> & word complexes e.g. <i>fish, frill, or squid.</i>) (Personal pronouns 30.6%.)	
10	2.8	Head≠Thing, elliptical	the outside <i>in</i> the middle of the circle and the outside (45. Belle) branched – no Head (IFG3 331)	numerative only (focus – perspective)
			about 32 million <i>in</i> It only raised about 32 million (4)	numerative only
12	3.4	Head≠Thing, Epithet	mature (48. Lily)	
			very productive (46. Jack)	submodification in Epithet
187	52.2	Pre-mod + Head only		
160	44.7	Head=Thing	SEE TABLE BELOW	
		Head≠Thing, elliptical		
5	1.4	Head≠Thing, Epithet or Classifier – lexical	The largest (47. Kay)	Epithet as Head
			The average adult Emperor (45. Belle)	Classifier as Head
			freezing cold <i>in</i> harsh hot temperatures during the day and freezing cold during the night.(46. Jack)	submodification in Epithet
22	6.1	Head≠Thing, focus	a tinge of orange (45. Belle)	F – re-counting
			a group of killer whales (48. Lily)	
			both sides of the lower body (48. Lily)	F – perspective
			the height of 35cm (47. Kay)	F – dimensional
			the different types of deserts. (46. Jack)	F – classifying
41	11.5	Post-modification		
28	7.8	with qualifying phrase	Head only Head=Thing	countries like Algeria, Libya, Sudan and Egypt (46. Jack)
			Head only Head=Thing	turns from [[being in the middle of the circle and the outside]]. (47. Kay)
			Head only Head≠Thing, Epithet	larger than a regular ruler (47. Kay)
			with Pre-mod Head=Thing	the scientific name for killer whale (48. Lily)
			with Pre-mod Head=Thing	6-10 years of age (48. Lily)
12	3.4	with qualifying clause	Head only Head=Thing	Animals [[that live in deserts]] (46. Jack)
			with Pre-mod Head=Thing	the baby chick [[inside]] (45. Belle)
			with Pre-mod (Focus) Head=Thing	one of the few birds [[that can't fly]] (Kim)
			with Pre-mod Head=Thing	a sickness [[called pesticide]] (45. Belle)
1	0.3	with multiple qualifiers	with Pre-mod (Focus) Head=Thing	many types of penguins [[that live in Antarctica]] like the Adelie, Emperor, King, Humboldt, Yellow-eyed, Gentoo, Chinstrap, Royal, little and many others. (47. Kay)
358	100	Total		

Having looked at the wide scope of the nominal group in Year 6 Reports, let us look now at the pre-modifying element, especially the one row in Table 6. 4-30 that summarises much and should not be passed over without elaboration, highlighted in the re-produced table below:

A	B	C	D	E	F	G
Nominal groups	In ranking clauses	In embedded clauses	Other	Total	% Ranking	% Total
Head only	86	14	30	130	24.0	36.3
Head=Thing	71	12	25	108	19.8	30.2
Head≠Thing, elliptical	8		2	10	2.2	2.8
Head≠Thing, Epithet	7	2	3	12	2.0	3.4
Pre-mod + Head only	116	4	67	187	32.4	52.2
Head=Thing	99	4	57	160	27.7	44.7
Head≠Thing, elliptical						
Head≠Thing, Epithet	5			5	1.4	1.4
Head≠Thing, focus	12		10	22	3.4	6.1
Post-modification	24	1	16	41	6.7	11.5
with qualifying phrase	17		11	28	4.7	7.8
with qualifying clause	6	1	5	12	1.7	3.4
with multiple qualifiers	1			1	0.3	0.3
Total	226	19	113	358	63.1	100

The highlighted row contains uses of the pre-modifying element in the nominal group where the Head is in phase with the Thing (i.e., in our data, is not elliptical, is not an Epithet and does not involve the use of the extended numerative (IFG3 p.333) known as Focus (DFG p.170); these belong to the rows following and examples have been included in Table 6. 4-31). The range of configurations of pre-modifying elements was examined across all the texts in the data set and a list compiled of those used. This list of 25 different configurations is presented in Table 6.4-32, with data and examples for Year 6 Reports.

Table 6. 4-32 Pre-modification in the nominal group (Year 6 Reports)

Configuration	Count	%	Example 1	Example 2
DeicticDeictic2NumerativeThing				
DeicticDeictic2EpithetThing	1	0.6	Some other interesting facts about this amazing creature (45. Belle)	
DeicticDeictic2Thing	1	0.6	the only animals in Antarctica [[that breed in winter]] (45. Belle)	
DeicticNumerativeEpithetThing				
DeicticNumerativeThing	1	0.6	the next topic (46. Jack)	
DeicticNumerativeClassifierThing				
DeicticEpithetClassifierThing	1	0.6	a small food source (45. Belle)	
DeicticEpithetEpithetEpithetThing	1	0.6	a nice, soft, white belly (45. Belle)	
DeicticEpithetEpithetThing				
DeicticEpithetThing	23	14.4	the most extreme weather in the world (46. Jack)	this wonderful whale (48. Lily)
DeicticClassifierClassifierThing	1	0.6	The male killer whale (48. Lily)	
DeicticClassifierThing	21	13.1	The Emperor Penguin (45. Belle)	a nocturnal animal (46. Jack)
DeicticThing	51	31.9	the heat (46. Jack)	the egg (47. Kay)
Deictic2Thing	1	0.6	Different animals (46. Jack)	
Deictic2ClassifierThing				
NumerativeClassifierThing	1	0.6	little or no organic matter what so ever (46. Jack)	
NumerativeEpithetClassifierThing				
NumerativeEpithetEpithetThing				
NumerativeEpithetThing				
NumerativeThing	21	13.1	five months (45. Belle)	around 5.8-6.7 metres (48. Lily)
EpithetClassifierThing	2	1.3	cold basin deserts (46. Jack)	fantastic and brilliant marine animals (48. Lily)
EpithetEpithetThing	3	1.9	harsh hot tempretures (46. Jack)	striking black and white colourations (48. Lily)
EpithetThing	8	5.0	great divers (45. Belle)	cold water (48. Lily)
ClassifierClassifierThing				
ClassifierThing	23	14.4	Central Australia (46. Jack)	live young (48. Lily)
25 Total	160	100		
Count of different configurations used	16			

Of the twenty-five available patterns, 16 were used (64%) in Year 6 Reports. Of the 160 instances of pre-modification in the nominal group, the most used configuration is, unsurprisingly, DeicticThing (51 of 160, or 31.9%). Next most common is ClassifierThing (23 of 160, or 14.4%) and DeicticEpithetThing (23 of 160, or

14.4%), followed closely by NumerativeThing (21 of 160, or 13.1%). Next is EpithetThing (8 or 5.0%). Three instances occur of EpithetEpithetThing (3 of 160, or 1.9%), two of EpithetClassifierThing (2 of 160, or 1.3%) and then usage drops to ones: Deictic2DeicticEpithetThing (0.6%), DeicticDeictic2Thing (0.6%), DeicticNumerativeThing (0.6%), DeicticEpithetClassifierThing (0.6%), DeicticEpithetEpithetEpithetThing (0.6%), DeicticClassifierClassifierThing (0.6%), Deictic2Thing (0.6%) and NumerativeClassifierThing (0.6%).

Examining the elements in the pre-modifier that allow a lexical choice to be made, Epithet and Classifier, may throw some light on to the way children build up meaning across the Years and in different genres, bearing in mind that lexical choices are also a feature of the choice of field. Across the nominal groups, 38 of the 160 (24.4%) involve the use of Epithets, one instance using two, in 7 configurations. Fifty (50) nominal groups use a Classifier (23.7%), using 6 configurations.

It may also be interesting to note how many drop the Deictic. It is posited that this may indicate the use of more generalised terms, a feature of factual genres, where the field often involves information about general phenomena rather than personal or specific phenomena or entities. In the case of the Year 6 Reports, 59 (or 36.8%) noun groups do not use a deictic.

There is any number of comparisons that could be made; here we have drawn out three to do with pre-modification.

This chapter has provided quite a thorough ideational examination of the Reports written by students in Years 3, 4, 5 and 6.

This completes the survey of the three genres under study – Narratives in chapter 4, Expositions in chapter 5 and Reports in chapter 6 – and now Chapter 7 will collate findings and present a contrastive summary for each of the genres, painting a developmental picture across the Years.

7 CONTRASTIVE SUMMARY

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7.1 Interpretation of findings

This chapter will draw together the findings of the previous three chapters. Following some introductory remarks in this section (7.1), Narratives, the topic of Chapter 4, will be dealt with in section 7.2; Expositions (Chapter 5) will be treated in section 7.3 and Reports (Chapter 6) in section 7.4.

To facilitate the discussion, some Chapter-specific notation will be introduced. Curly braces, {}, surrounding a sequence of four numbers, will indicate the data corresponding to the successive years. For example, {5, 1, 16, 20} will indicate 5 instances of the particular item in Year 3 texts, a single instance in Year 4 texts, and 16 and 20 items for Year 5 and Year 6, respectively. **Bold text** will be used to denote a continuous development, such as {1, 2, 5, 12}. Rarely, the continuous development may correspond to a continuous decrease in the entity being measured, as in {20, 15, 8, 2}. Underlined text will denote a continuous development across three of the four Years. In other words, underlined text indicates a progression with a single exception. An example is {8, 5, 15, 20}. Here either of the first two numbers might be regarded as anomalous, and the remaining three numbers correspond to an increasing sequence. Underlined text will also be used for a monotonic increase, meaning each number is not less than the one before; for example, {1, 1, 2, 3} or {1, 2, 2, 3} or {1, 2, 3, 3}. On occasion, underlined text may also be used to denote a monotonic decrease, such as {10, 8, 8, 4}. *Italic text* will denote a set of data in which there is even less order, for example {15, 20, 5, 8}. This example reflects an increase from Year 3 to Year 4, and then another increase from Year 5 to Year 6, but a decrease from Year 4 to Year 6. The interpretation of such scattered data is fraught and, generally speaking, will not be attempted. (These uses of bold, underlined and italic fonts refer to the body of the Chapter and not to the headings and subheadings, whose styles continue as usual.) The notation is summarised below:

Overview of notation used in Chapter 7		
Notation	Meaning	Examples
{A, B, C, D}	The values for Years 3, Year 4, Year 5 and Year 6, respectively	The numbers of sentences in Narratives (49 in Year 3, 128 in Year 4, 159 in Year 5, 173 in Year 6) are written compactly as: {49, 128, 159, 173}
bold	values increase each Year	{49, 128, 159, 173} (sentences in Narratives)
	or decrease each Year	{10%, 9%, 7%, 6%} (the fraction of verbal group complexes in Narratives)
<u>underline</u>	values increase in three out of four years	{24, 26, 27, 20} (<u>clause complexes</u> in Narratives; omitting Year 6, there is an increase between the other Years)
	including cases where a value is repeated in successive Years	{4, 41, 41, 42} (<u>1-clause sentences with paratactic relations only</u> in Narratives)
	or decrease in three out of four years	{11.1%, 12.5%, 11.4%, 9.7%} (<u>fraction of embedding occurring in/as a Circumstances</u> in Narratives; apart from Year 3, decreases with Year)
<i>italic</i>	values are irregular; no three Years, let alone all four, exhibit either regular increase or decrease	{2, 0, 1, 0} (<i>complex embedding</i> in Narratives)

7.2 Comparison of Years 3-4-5-6 Narratives

In this Section, the Narratives from Year 3, 4, 5 and 6 will be compared. For brevity, the text-group that makes up the Year 3 Narratives will be referred to as Y3N; likewise, the other Year text-groups will be abbreviated as Y4N, Y5N and Y6N.

It should be borne in mind that each of the text groups itself is made up of 4 texts, so in total 16 texts are involved in the comparison. However, at each Year level, the data from the 4 texts has been combined, so the direct comparison will be made between the 4 entities Y3N, Y4N, Y5N and Y6N. It should also be borne in mind that the data set reported on in this thesis is very small to be making quantitative observations, but general trends may still be observed. The small samples sizes means that some distinctions are lost in the transition from raw to fractional values, so that some items are reported in raw data: this is not to make any generalisable claims, but to preserve a placemaker, as it were, for sites of possible observation in a study involving a larger corpus.

Detailed information about each text-group has been set out in Chapter 4. Apart from the initial Overview Table 7. 2-1 (which draws summary sentence level information for each Year), the data will not be reproduced. The reader is able to consult the full data sets in the Tables in Chapter 4. Where necessary, to distinguish the Tables from the different Year groups, the leading number will be replaced with Y#N, where # is either 3, 4, 5 or 6. To illustrate, the twelfth Table in the Section on Year 5 Narratives will be referred to as Table Y5N-12. (This is equivalent to Table 4.3-12, which notation may be unpacked as Chapter 4, namely Narratives, third Year group, namely Year 5, twelfth Table.)

7.2.1 Texts (Narratives Years 3-4-5-6)

All texts are reproduced in Chapter 4, with some whole-text features, in Sections

- 4.1 (Year 3, Tables 4. 1-1 to 4. 1-8),
- 4.2 (Year 4, Tables 4. 2-1 to 4. 2-8),
- 4.3 (Year 5, Tables 4. 3-1 to 4. 3-8) and
- 4.4 (Year 6, Tables 4. 4-1 to 4. 4-8).

7.2.2 Sentence level information (Narratives Years 3-4-5-6)

We first consider the whole-of-text information set out in Tables Y3N-9, Y4N-9, Y5N-9 and Y6N-9. This information is gathered here, in Table 7. 2-1:

Table 7. 2-1 Overview (Narratives Years 3-4-5-6)

A	B	C	D	E	F	G	H	I	J	K
Year	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
3	49	34	15	73	8	1	228	440	3.1	6.0
4	128	49	79	232	6	1	677	1344	2.9	5.8
5	159	54	105	337	39	5	883	1929	2.6	5.7
6	173	76	97	321	26	2	960	1939	3.0	6.1

Although there was no control in place to monitor text production, it may still be noted that lengths of Narratives increase with increasing Year. In terms of the number of **sentences** in the Narratives, Column B, the data for Years 3, 4, 5 and 6 is {49, 128, 159, 173}. The rate of increase decreases with Year: the increase between Years 3 and 4 is 79 sentences; between Years 4 and 5, 31 sentences; and between Years 5 and 6, only 14 sentences. Thus the number of sentences is a good indicator of the Year from which a particular Narrative comes, but the efficacy of this gauge in distinguishing between Years decreases as the Years increase.

The same behaviour as noted for the numbers of sentences also is observed for the number of **words**, Column I, namely, that there is an increase, but that the rate of increase declines, as the Years go up. The number of words in the Narratives of the successive Years are {440, 1344, 1929, 1939}. The increases in words between the successive years deduced from these figures are 904, 585, 10. The change in length of 10 words out of about 1900 between Year 5 (1929 words) and Year 6 (1939 words) amounts to less than 1% and is almost negligible, though may be explained by the presence of one Year 5 text that is particularly long (820 words, 266 more than the next longest, a Year 6 text of 544 words).

The same pattern also applies to **lexical items**, Column H, although here the distinction between the Years is greater. The lexical items in the Narratives, listed in

order from Year 3 to Year 6, are {228, 677, 883, 960} and the successive differences are 439, 206 and 77. The distinction between Year 5 and Year 6 is clearer using the count of lexical items than using the count of sentences and is much clearer than using the count of words.

It also turns out that the number of **lexical items per sentence** (not shown in the Table, but readily calculated) also increases Year by Year, having values of {5.0, 5.3, 5.6, 5.7}. While the trend is subtle, it is discernible.

Now we turn to the clause. The number of clause **simplexes**, Column C, increases steadily from Year to Year, as {34, 49, 54, 76}. However, the number of clause complexes, Column D, {24, 26, 27, 20} and the total number of clauses, Column E, {74, 95, 86, 63} do not show as systematic behaviour.

Turning to embedding within the clause, we observe rather irregular behaviour moving from Year to Year. *Simplex embedding* occurs at the frequencies {8, 11, 4, 4} (Column F) and *complex embedding* at the frequencies {2, 0, 1, 0} (Column G).

We come to the two remaining parameters recorded in the Table, each of which might be anticipated to increase with Year, but which turn out to display non-uniform development, albeit around fairly uniform values. Lexical density, Column J, takes the values {3.1, 2.9, 2.7, 3.0}. In other words, in order of increasing lexical density, the Years are Year 5, Year 4, Year 6, and Year 3. It might come as a surprise that the youngest Year is the most lexical dense! Similarly, for mean clause length, Column K, the figures for successive Years are {6.0, 5.8, 5.7, 6.1}; so the order of Years, from least to greatest, is Year 5, Year 4, Year 3, Year 6, a similar pattern to that for lexical density, although not exactly the same. For both lexical density and mean clause length it has been noted that the variation is small (within the ranges 2.7 to 3.1 and 5.8 to 6.1, respectively); it is perhaps unwise to make too much of the differences and sounder to conclude that neither lexical density nor mean clause length show much change from Year to Year across the Narratives.

7.2.3 Sentence constituents (Narratives Years 3-4-5-6)

Further details on the sentences and constituent clauses are found in Tables Y3N-10, Y4N-10, Y5N-10 and Y6N-10 (Tables 4. X-10 of Chapter 4), dealing with sentence length in terms of clauses and with dependency: either paratactic, hypotactic or both. It might be expected that the lengths of sentences used increases with Year, and this is the general trend, but not holding in all cases. The longest sentences used in Year 3, 4, 5 and 6 comprise 5, 4, 6 and 8 clauses, respectively. Associated with this, it might be expected that there would be a shift from single-clause to multi-clause sentences, and this indeed is the trend: in Years 3, 4, 5 and 6 the fraction of clause simplexes are 69%, 38%, 34% and 44% and the fraction of two-clause sentences are 19%, 44%, 38% and 39%. A distinction may be made between, on the one hand, Year 3 and Year 6, where the 1-clause sentences are most common, and the frequency of multi-clause sentences then decreases with their length, and, on the other hand, Year 4 and Year 5, where 2-clause sentences are most common; however, it is not clear this distinction is significant.

For short sentences, a couple of systematic trends may be recognised. The number of **1-clause sentences**, (Column D of Tables Y3N-10, Y4N-10, Y5N-10 and Y6N-10), increases with Year: {34, 49, 54, 76}. Likewise, the use of **2-clause sentences** (reflected directly in the number of total nexuses, Column H of Tables Y3N-10, Y4N-10, Y5N-10 and Y6N-10) always goes up with Year: {9, 56, 61, 67}. For longer sentences, the patterns are not so clear-cut, but it is notable that Year 5 boasts the largest use of sentences of 3, 4, 5 and 6 clauses in length.

While the number of **hypotactic-only relations** increases from Year to Year, as {7, 21, 26, 27}, the number of paratactic-only relations is less regular: {5, 44, 53, 47}. Drilling down to sentences of various length, **2-clause sentences with hypotactic-relations only** increase in frequency from Year to Year as {5, 15, 21, 26} but other categories, such as 3-clause sentences with hypotactic relations only {1, 5, 4, 1} and 1 and 2-clause sentences with paratactic relations only ({4, 41, 41, 42}, {1, 2, 8, 4}) are less regular. Sentences with **both relation types** increase regularly as a **fraction** {13%, 14%, 15%, 16%}, but not in absolute terms, {3, 14, 26, 23}, across the Years.

The Tables Y3N-11, Y4N-11, Y5N-11 and Y6N-11 (Tables 4.X-11 of Chapter 4), show a systematic increase in many measures moving from Year 3, to Year 4, to Year 5, then a decrease in Year 6. This holds for paratactic nexuses, {9, 62, 110, 82}; hypotactic nexuses, {15, 42, 68, 66}; total nexuses, {24, 104, 178, 148}; fraction of paratactic nexuses, {38%, 60%, 62%, 55%} (with the complementary fraction of hypotactic nexuses going as {62%, 40%, 38%, 45%}); and the ratio of hypotactic to paratactic nexuses (not shown in the Tables, but easily calculated) as {1.67, 0.68, 0.62, 0.80}. In all cases, the greatest change is between Year 3 and Year 4 and in all cases either Year 5 or Year 6 disrupts the simple sequence.

When the logic-semantic relations are examined more closely (Tables 4.X-12), few regularities emerge. The broad-brush features of total paratactic dependency, {9, 62, 110, 82} and hypotactic dependency, {15, 42, 68, 66}, have both been mentioned previously, and when we look more closely at the clause type used in dependent clauses, we see that finite clauses, {11, 34, 49, 47}, and non-finite clauses, {4, 8, 19, 19}, would be regular but for an anomaly between Years 5 and 6. The fraction of non-finite dependent clauses tends to increase, apart from a dip at Year 4 {27%, 19%, 28%, 29%}. At a finer level of detail, there are a couple of regular sequences. The **hypotactic** use of **expansion:enhancement:cause** goes as {4, 5, 17, 18} and this increase is reflected in the use of the **non-finite clause form**, {2, 3, 11, 12}, in contrast to the use of the *finite clause form*, {2, 2, 6, 6}, which, with the *paratactic* use of *expansion:enhancement:cause*, {1, 3, 3, 3}, while never decreasing, show little distinction between successive years in most instances. Other examples vary unusually; for example, hypotactic use of expansion:enhancement:temporal is {3, 18, 14, 13}.

When we look purely at the logico-semantic meanings being generated through expansion, some broad observations may be made. The sub-categories employed are *elaboration:exposition* {0, 0, 1, 0}, *:clarification* {0, 3, 0, 1}, and **:description** {2, 6, 8, 10}, *extension:addition:additive* {7, 31, 60, 57} and **:addition:adversative** {0, 4, 6, 7}; *enhancement: temporal* {3, 14, 16, 13}, *:manner* {0, 1, 0, 0}, **:cause** {5, 8, 20, 21} and :conditional {1, 2, 4, 1}. It is evident that in many sub-categories, a marked increase occurs between Years 3 and 4.

Meanings generated through projection also demonstrate an irregular pattern. Unsurprisingly, there is strong, though unsystematic, usage of projection across the grades {6, 22, 54, 36}, fractionally, {25%, 36%, 30%, 24%}. Projection:locution (speech) dominates {3, 25, 37, 25} over projection:idea (thought), {3, 0, 17, 36}. To be more specific about projected meanings, paratactic locution (direct speech) {3, 22, 34, 15} and hypotactic idea (indirect thought) {3, 5, 16, 10} are used frequently across the Years, but in no regular pattern, increasing across three of four Years. Years 4 and 5 tend to include quite a bit of dialogue in their Narratives.

Tables Y3N-13, Y4N-13, Y5N-13 and Y6N-13 (corresponding to Tables 4.X-13) distinguish the clauses that have embedding and those that do not. In brief, the embeddedness of clauses shows unsystematic fluctuations from Year to Year. The total number of clauses that do not contain embedding across the Years tends to increase, with a large jump between Years 3 and 4: {64, 225, 293, 294}. However, the *clauses that contain embedding* fluctuate wildly from Year to Year: {9, 7, 44, 27}. Likewise, the *fraction of clauses with embedding*, {12%, 3%, 13%, 8%} and the complementary *fraction of clauses without embedding* {88%, 97%, 87%, 92%} are very up and down from Year to Year. In any given Year, though, there are far more clauses without embedding than with embedding.

When the embedding is examined in detail (Tables Y3N-14, Y4N-14, Y5N-14 and Y6N-14, corresponding to Tables 4.X-14), little regular change across the Years is evident. It is clear that both uses of embedded clauses (as Qualifier in an nominal groups and as a whole nominal group) are very common across the Years. In the same way, the ratio of embedding occurring in Participant to Circumstance is similar across the Years: 8 to 1, 7 to 1, 39 to 5, 26 to 3. Some items showed a regular behaviour in three out of four Years, for example the fraction of Qualifier in a nominal group {56%, 50%, 57%, 76%}, where one of the first two entries might be regarded as anomalous, and the complementary generally decreasing fraction of whole nominal group {44%, 50%, 43%, 24%}. Likewise, the fraction of embedding occurring in/as a Circumstances generally decreases with Year, {11.1%, 12.5%, 11.4%, 9.7%}, where the first entry may be regarded as aberrant. Indeed, in most of the cases across all the entries in the Tables, the counts are higher in Year 3 than in Year 4 and higher in Year 5 than in Year 6, but the most marked difference is that

Years 5/6 are much higher than Years 3/4. This pattern is exemplified in the more detailed Tables Y3N-15, Y4N-15, Y5N-15 and Y6N-15 (Tables 4.X-15). For example, the total of *embedded simplexes* goes as {8, 7, 39, 27}. Again, this pattern continues in greater detail in Tables Y3N-16, Y4N-16, Y5N-16 and Y6N-16 (Tables 4.X-16) concerning placement of the embedding. For example, *embedding as Qualifier in a nominal group realising the Participant* goes as {5, 3, 28, 24} and *embedding as whole nominal group realising the Participant* as {3, 6, 16, 7}.

7.2.4 Transitivity in All Narratives

7.2.4.1 Processes in All Narratives

7.2.4.1.1 Functional types of Processes in All Narratives

Process types are set out in the Tables Y3N-17, Y4N-17, Y5N-17 and Y6N-17, corresponding to Tables 4.X-17.

Looking at the bottom of the tables first, it is evident that, in counting the *number of different process types* used, there is little change from Year to Year. Within ranking clauses, the numbers are {6, 5, 6, 6}; within embedded clauses, {3, 3, 6, 4}; in total {6, 5, 6, 6}. It is evident that the full range of process types is accessible from an early age.

For all years, principal processes far outnumber subsidiary processes, but the proportion of *principal processes* fluctuates from Year to Year in an up, down, up pattern {*ranking only*: 84%, 87%, 78%, 81%} (with a similar pattern when *embedded clauses* are included: {*all*: 86%, 87%, 80%, 82%}).

The use of different process types in ranking clauses varies as material {54%, 50%, 42%, 47%}, *mental* {10%, 7%, 14%, 9%}, *relational* {20%, 30%, 22%, 25%}, behavioural {3%, 0%, 3%, 6%}, verbal {7%, 13%, 17%, 12%} and existential {6%, 0%, 2%, 2%}.

It can be seen that Years 4, 5 and 6 favour material clauses, then relational, then verbal, then behavioural and existential. Year 3 differs in that after material and relational, it elevates mental into third position above existential and verbal and behavioural.

Year 3 students favour material clauses more than the other Years, but use very few verbal processes in comparison with other Years, suggesting that students are more comfortable writing about events and happenings than they are about writing dialogue. They show a marked use of existential processes, reflecting their formulaic story openers (e.g. “There was a friendly giant ...”; Once, there lived three children ...”). In contrast, Year 4 abandons existential processes, showing a peak of interest in using relational processes, as they become better at defining and describing, perhaps as curriculum moves them to the descriptive aspects of writing. Year 5 is remarkable for its high usage of mental and verbal clauses, as they consider interior worlds of characters, reflecting its high use of projecting clauses indicated above. Year 6 shows the highest use of behavioural processes.

Across the Years, there are no regular patterns of usage that emerge. We can exemplify the minor up, down, up pattern already mentioned for Principal processes. The variation is small, and the series not regular, but it appears elsewhere, for example, in the *fraction of relational processes* {embedded: 24%, 31%, 23%, 25%}. The opposite down, up, down pattern is true, of course, for Subsidiary processes {16%, 14%, 22%, 19%}, and is mirrored in the *fraction of mental clauses*, {10%, 7%, 14%, 9%}.

The use of *embedded clauses* themselves has already been examined, but here we can see the usage in terms of process type: material {5%, 1%, 6%, 6%}, *mental* {1%, 0%, 2%, 1%}, relational {6%, 3%, 4%, 2%}, behavioural {0%, 0%, 0.5%, 0.9%}, verbal {0%, 0%, 0.3%, 0%} and existential {0%, 0%, 0.3%, 0%}. Apart from a dip a Year 4, usage of *embedded clauses* is fairly even through the years {13%, 4%, 13%, 10%}.

We now turn to the complexity of the verbal groups that realise the processes, Tables Y3N-18, Y4N-18, Y5N-18 and Y6N-18 (Tables 4.X-18). Perhaps counter-intuitively, **verbal group simplexes as a fraction of ranking clauses** increase with Year: {90%, 91%, 93%, 94%}. Given that, it follows that **the fraction of verbal group complexes** decreases regularly from Year to Year: {10%, 9%, 7%, 6%}. Of course, with an overall difference of only 4%, it is noted as a possible trend only – but it is interesting that the trend is not in the other direction, as may have been expected. The trend can be examined more broadly in the raw data, where a regular pattern holds only for three out of the four years. For example, verbal group simplexes in ranking clauses go as {63, 204, 300, 292} and in all clauses as {73, 212, 345, 325}; verbal group complexes go as {7, 20, 23, 18} in ranking clauses and as {7, 22, 26, 19} across all clauses. As noted previously, the totals for ranking clauses {70, 224, 323, 310} and for all clauses {80, 234, 371, 344} follow the same pattern and indicate a large leap between Years 3 and 4.

Phrasal verbs in ranking clauses, {ranking only: 4%, 11%, 6%, 13%}, and *in all clauses*, {all: 4%, 11%, 5%, 12%}, exhibit the up-down-up pattern through a 8% change. Use of modality in the verb in the form of *modal adjuncts* {ranking only: 4%, 7%, 2%, 3%}, {all: 4%, 6%, 2%, 3%} and *modal finites* {ranking only: 9%, 7%, 6%, 9%}, {all: 8%, 6%, 6%, 8%} is less varied.

Further detail regarding the verbal group complexes that realise processes in Narratives is found in Tables Y3N-19, Y4N-19, Y5N-19 and Y6N-19 (Tables 4.X-19). Little clear development across the Years is evident and the numbers are so small it is hard to draw conclusions. For example, verbal groups with **multiple complexing** are used 5 times altogether, spread as {0, 1, 2, 2} across the years. This varies **proportionally** as {all: 0%, 5%, 8%, 11%}, which may indicate a propensity to increase.

Multiple complexing aside, parataxis in the verbal group varies proportionally as {all: 14%, 10%, 13%, 11%}. This may indicate a tendency to decrease, which is reflected in hypotaxis in the verbal group {all: 86%, 86%, 81%, 90%}, tending to

increase overall. All parataxis occurs through expansion extension, and all occurs in ranking clauses. Hypotaxis occurs through both projection {all: 14%, 14%, 12%, 5%}(decreasingly), and expansion {all: 71%, 73%, 70%, 85%}(increasingly).

If we examine hypotactic expansion, we find that all three types are used from Year 3 and that across the years, there may be an increase in usage of elaboration, and a corresponding decrease in enhancement. Elaboration is used {all: 29%, 50%, 39%, 69%} compared to *extension* {all: 14%, 23%, 19%, 10%} and enhancement {29%, 0%, 12%, 5%}

The few embedded verbal group complexes in the Narratives are all hypotactically joined, and represent varying proportions of the total number of verbal group complexes: {0%, 9%, 12%, 5%}.

7.2.4.2 Participants in All Narratives

7.2.4.2.1 Functional roles of Participants in All Narratives

We now come to the functional roles of Participants, as set out in Tables Y3N-21, Y4N-21, Y5N-21 and Y6N-21 (Tables 4.X-21). There are a possible 26 participant roles that writers choose from – Actor, Goal, Carrier, Attribute, and so on. The number of the different participant roles used by students across the years shows a dip then recovery: {18, 16, 17, 19}. The count in Year 3 is unexpectedly high at 18. A similar pattern occurs for *different Participant roles among the ranking clauses* {18, 16, 16, 19}, albeit with a repeated value. Within the *non-ranking clauses*, there is a jump between Year 3/4 and Year 5/6: {6, 5, 12, 10}.

As would be expected, usage of Participants mirrors the use of Processes, and the same general trend (meaning in at least three out of four cases) in usages of Participant roles is apparent for both relational participants {30%, 42%, 32%, 33%} and verbal participants {6%, 10%, 13%, 9%} increasing; and a decrease is apparent for material Participants {55%, 42%, 38%, 44%}.

The Tables 4.X-22 attempt to compare usage of directly and obliquely involved Participant roles. Five of the six process types have associated with them both directly and indirectly involved Participants roles. One – existential – has only one, the directly associated existent. This means there are altogether 13 possibilities, and these are identified in Column B of the Tables. In comparing across the Years, 10 of the 13 possibilities are identical in all Years. The three items that are not identical across the Years are: *material/oblique*, {3, 3, 2, 2}; *behavioural/direct*, {0, 0, 1, 1}; and *behavioural/oblique* {0, 0, 1, 1}. It is of interest to note that *material/oblique* decreases in Year 5/6 relative to Years 3/4. However, the overall observation from this data set is, in light of the smallness and similarity of these numbers, directness versus obliquity, or even introduction of obliquity, does not represent an effective means of gauging writing development in this context.

7.2.4.2.2 Realisation – form of Participants in All Narratives

Participants may be realised by three different classes of group/phrase – the nominal group, the prepositional phrase, and rarely, the adverbial group. (The use of these latter two forms usually reflect the proportionate use of relational processes requiring circumstantial attributes, the use of passive, and the use of oblique participants, as can be seen in the Participant Tables 4.X-21). The nominal group can manifest in three ways: as a noun group where the Head of the group is a noun, as an adjectival group where the Head of the group is an adjective, and as a group where the Head is realised by a whole embedded clause, denoted here ‘clause-as-head’.

The forms taken by the Participants in Narratives across the Years are presented in Tables Y3N-23, Y4N-23, Y5N-23 and Y6N-23; Table 4.X-23. Nominal groups are used evenly across the Years; taking all participants into account, in ranking and embedded clauses, realisation as nominal group is very common and very even: {all: 97%, 96%, 97%, 96%}. The remaining participants are realised by prepositional phrases {all: 3%, 3%, 2%, 4%} and adverbial groups {all: 0%, 1%, 1%, 0%}. Looking at the different manifestations of the nominal groups, we see that noun groups are used {91%, 89%, 90%, 88%}, adjectival groups {5%, 6%, 4%, 7%}, and clause-as-head {1%, 1%, 3%, 1%}; all fairly even across the years, although there

may be a slight decrease in noun groups (3%) and an increase in use of adjectival groups (a non-convincing 2%).

Examination of the form of participants used in ranking as opposed to embedded clauses is profitless; in terms of patterns of development, nothing of significance emerges.

The form of the participant is examined in greater detail in Tables 4.X-24, which, in the first instance, distinguishes between participants realised by one single group or by a group complex. In the case of Narratives, the usage of nominal group complexes, all of them noun group complexes, is {2%, 1%, 2%, 2%} across the years. All occur in ranking clauses.

Turning now to Participants realised by of single nominal groups, {119, 328, 497, 477} in both ranking and embedded clauses, use of those consisting of Head only shows a general pattern resulting in an overall increase of 9% {61%, 68%, 71%, 70%}; those with Head plus a pre-modifying element show a regular decrease of 10%, {32%, 27%, 20%, 23%}, whereas those with any sort of post-modifying element show little movement {5%, 3%, 5%, 5%}.

Participants realised by conventional **noun groups** of course comprise the majority in all these categories (total clauses shown), *Head only* shows an erratic pattern resulting in an overall increase of 5% {55%, 61%, 64%, 60%}; those with Head plus a pre-modifying element show a regular decrease {31%, 25%, 18%, 22%}, whereas those with any sort of post-modifying element show a general increase {2%, 2%, 5%, 4%}, with a disappointing tendency to drop away in Year 6 (or illustrating again the Year 5/6 switch).

Adjectival nominal groups show a generally increasing pattern, Head only: {4%, 5%, 4%, 7%} with very little modification, as *post-modification*: {0%, 1%, 0%, 0%}. Use of nominal groups with *clause-as-Head* scarcely changes, {1%, 1%, 3%, 1%}. The nominal groups in prepositional phrases develop as follows: *Head only* {1%, 1%, 1%, 2%}, pre-mod {1%, 2%, 1%, 1%}, post-mod {0%, 0%, 0%, 1%}, doing nothing

to change the pattern of noun group use or add to a development sequence in form across the Years.

Overall, there is little evidence of steady consistent development in the way Participants are realised in Narratives. Any expected increase in the use of more modification in the nominal group does not materialise.

7.2.4.3 Circumstances (Narratives Years 3-4-5-6)

7.2.4.3.1 Functional types of Circumstances in All Narratives

Tables Y3N-26, Y4N-26, Y5N-26, Y6N-26; 4.X-26 deal with the circumstances used in Narrative writing. **Numbers of Circumstances** utilised in Narratives show a steady increase from Year to Year in the raw data: {**all**: 27, 90, 124, 142}. This breaks down to **Circumstances used in ranking clauses**, {26, 88, 113, 130} and the **Circumstances used in embedded clauses**, {1, 2, 11, 12}, all showing increased usage. The *use of circumstances in embedded clauses* is generally confirmed in the *fractional* figures showing an erratic pattern tending to increased use {*embedded*: 4%, 2%, 9%, 8%}, shown up in the corresponding fractional numbers for use in ranking clauses {*ranking*: 96%, 98%, 91%, 92%}. However, the overall steady increase in usage that shows up in the raw figures is supported by a calculation of the number of **circumstances used per sentence**, {0.55, 0.70, 0.78, 0.82}, and an overall general increase in circumstances used per clause: {0.37, 0.39, 0.37, 0.45}.

The range of circumstance types used shows a general increase across the Years in ranking clauses {ranking: 6, 9, 15, 13} which carries through into all {all: 6, 10, 15, 14} but the range used in **embedded clauses** {**embedded**: 1, 2, 4, 5} shows a regular widening.

The most favoured Circumstance across the Years is of *location place*, followed by *location time*, followed by quality for 4, 5 and 6, with Year 3 liking manner means. Fourth most common varies – Year 3 uses 3 equally – *reason*, quality and accompaniment; Year 4: *reason*; Year 5: *matter*; Year 6: accompaniment.

Circumstances of manner:quality show a general increase, with a large jump between Years 3 and 4 {ranking: 4%, 13%, 11%, 12%}, {all: 4%, 12%, 10%, 12%}. In some instances, the overall usage of particular Circumstances does not seem to show much change, going through a non-systematic fluctuation between all Years For example, *location:time* goes as {*ranking*: 23%, 15%, 28%, 23%},{*all*: 22%, 14%, 26%, 21%}. *Location:place* is similar, going as {*ranking*: 50%, 57%, 44%, 47%} {all: 52%, 57%, 47%, 48%}, though a marginal drop by Year 6 may be discerned. An unexpected example of a more regular decline with Year is manner:means, going as {4, 2, 2, 1}. {all: 15%, 2%, 2%, 1%}.

7.2.4.3.2 Realisation of Circumstances in All Narratives

Steady development across the Years is evident in the forms taken by the Circumstances, given in overview in Tables 4.X-27. As has already been noted, there is ever-increasing usage across the Years of **Circumstances** and **in total clauses** {27, 90, 124, 142}, translating to a decrease in fractional use *in ranking clauses*, {96%, 98%, 91%, 92%} and an increase *in embedded clauses* { 4%, 2%, 9%, 8%}.

Restricting attention to the form of Circumstances **in ranking clauses**, use of the adverbial group shows a regular increase,{ 22%, 18%, 28%, 28%}, the prepositional phrase a general decrease, {67%, 78%, 53%, 55%}, and the *noun group* a fluctuation to remain much the same,{7%, 1%, 10%, 8%}.

In **embedded clauses** the use of **prepositional phrases** show a regular increase,{0%, 2%, 4%, 6%}, whereas variable behaviour is shown in use of the *noun group*, {0%, 0%, 1%, 0%} and in the use of *adverbial group*, {4%, 1%, 4%, 2%}, which may possibly decrease.

The details of forms of Circumstances appear in Tables 4.X-28. Again, it is clear that there is a general increase in usage from Year to Year. For example, use of **noun groups comprising one group** (those in *prepositional phrases* added to those few that are *not*, {2, 1, 13, 11}) increases according to raw numbers {19, 71, 82, 97}, but

fractionally, fluctuations indicate no real increase in use, {70%, 79%, 66%, 68%}. Use of those comprising *pre-modification and head only* also show little overall change {41%, 53%, 41%, 42%}. Use of those with post-modification however, shows a steady increase {4%, 7%, 7%, 11 %}. Use of **adverbial groups** as Circumstances increases **absolutely**, {7, 17, 41, 43}, though not *proportionally*, {26%, 19%, 33%, 30%}. Adverbial group use may involve more complexes across the Years {0%, 1%, 2%, 2%}.

7.2.4.4 The Nominal Group – a special case: in All Narratives

Information about the nominal group is set out in Tables Y3N-30, Y4N-30, Y5N-30 and Y6N-30 (Tables 4.X-30). The overall trend is for nominal groups to be used more frequently by the higher Year groups.

Some items show continual increase from Year to Year. For example, the **total number of nominal groups in ranking clauses** goes as {125, 381, 502, 522}, **the use of pre-modification plus head goes** as {47, 134, 138, 165} **in ranking clauses**, the use of pre-modification plus head goes as {61, 164, 211, 231} **across all clauses**.

Many other items show general increase from Year to Year, with the order of Years 5 and 6 swapped. Examples include total nominal groups in embedded clauses, {10, 14, 61, 51}, total nominal groups in other clauses, {20, 46, 109, 93} and total nominal groups, {155, 441, 672, 661}. At a more detailed level, to take the example of Head only, this shows a general increase either in ranking clauses, {71, 232, 328, 320}, in embedded clauses, {7, 9, 47, 36} and in total clauses, {84, 261, 411, 384}. A similar remark could be made regarding Head=Thing and Post-modification.

Use of pronouns can be examined in Tables Y3N-31, Y4N-31, Y5N-31 and Y6N-31 (Tables 4.X-31). There is no evidence of development in the use of pronouns as Participants in Narratives {56.6%, 49.6%, 74%, 62.3%}.

The general increase with Year is also evident in Tables 4.X-32. **Totals** go as {54, 152, 195, 218}, **NumerativeThing** as {5, 6, 12, 19} and **DeicticEpithetThing** as {9,

19, 27, 31}. Also notable are DeicticThing, {34, 96, 131, 131} and Configurations used, {6, 12, 14, 14}.

7.2.5 Summary of All Narratives

To conclude. There is consistent strong trend of increase, consistently at a decreasing rate, in the number of **words**, the number of **sentences**, and the number of **lexical items** as Year succeeds to Year. These parameters are the most reliable in placing a particular text in a Year group. **Lexical items per sentence** and the number of **clause simplexes** also increase with Year. A similar pattern is observed in the number of clause complexes, although it is not completely consistent, with the Year 5 value slightly exceeding the Year 6 values. The phenomenon of the Year 5 value exceeding the Year 6 value occurs throughout this set of texts and presumably relates to an above-average Year 5 grouping or below-average Year 6 cohort sampled. In many cases the difference between Year 5 and Year 6, although evident, is small. This may point to little development between Year 5 and 6. A different behaviour is observed for the two parameters of lexical density and words per clause; these remain relatively uniform, but with some scatter, from Year to Year.

Generally speaking, the length of sentences increases with Year, as does the proportion of sentences that contain more than one clause. The number of **1-clause sentences** and the number of **2-clause sentences** increase monotonically with Year. While **hypotactic-only relations** increase with successive Year, paratactic-only relations do not, Years 5 and 6 being ‘out of order’. Likewise, sentences with both relation types have Year 5 and 6 ‘swapped’, although **both relation types as a fraction** increases Year by Year. The ‘swap’ of Years 5 and 6 also applies to the related measures of paratactic nexuses, hypotactic nexuses, total nexuses, and the ratio of hypotactic to paratactic nexuses.

It is difficult to identify systematic behaviour in relation to the embeddedness of clauses. The total number of non-embedded clauses across the Years tends to increase, with a large jump between Years 3 and 4, but the proportion fluctuates. Examined in detail use of embedded clauses shows little systematic change across

the Years. Both forms (embedded as a qualifier in a nominal group and constituting the whole nominal group, clause-as-Head) are very common in all Years; the ratio of use in a Participant to use in a Circumstance is similar across the Years; simplexes outnumber complexes in all Years. The placement of []Q in a Participant is generally the most common, except for Year 4, when clause-as-Head as a Participant is most common; other placements occur too infrequently for firm conclusions to be drawn.

Now we turn to Transitivity analysis and begin with Processes. The *number of different process types* used changes little from Year to Year. Both principal processes and subsidiary processes tend to fluctuate from Year to Year as a *fraction*, but each is regular, apart from the Year 5/6 swap, in absolute terms. Use of material processes shows a slight general decrease, while use of *relational processes* shows a irregular increase. There is also a general increase use of verbal processes, while use of mental processes remains unchanged. Process type in order of high to low usage changes across the Years: material then relational processes are most common for all Years Year 3 then prefers mental while Years 4, 5 and 6 employ more verbal processes than mental, reflecting the increased use of dialogue in their Narratives.

Verbal group simplexes as a fraction of ranking clauses increase from Year to Year and, conversely, **the fraction of verbal group complexes** inexplicably decreases from Year to Year. The absolute numbers of verbal group simplexes and verbal group complexes do not show the same regularity, with Year 5 and Year 6 ‘out of order’ again. Little variation is found for use of *modal finites*.

Usage of Participant roles trends with the use of processes – trending up in use of participants associated with relational and verbal processes and showing a regular decrease for material Participants. The place of *material* and *oblique* roles has been investigated, but does not provide a clear way of distinguishing the Year groups.

Most forms of Participants likewise show an erratic or irregular (usually Year 5 and Year 6 swapped) development from Year to Year, tending to both increase and decrease. Those showing increase include adjectival nominal groups and noun

groups with head only and with post-modifying element . Those showing decrease include noun groups with Head plus a pre-modifying element.

We turn now to Circumstances. The number of **circumstances used per sentence** increases with Year, as does the number of sentences used per clause. The range of circumstances used increases with Year. The most widely used circumstance, *Location:place*, shows a decrease overall, and a more regular decline with Year shown unexpectedly by use of manner:means. The second most common circumstance in use is *location:time*, usage of which remains at a fairly constant level overall. A general increase is shown by manner:quality, with a large jump between Years 3 and 4.

As a special case, the nominal group has been considered across all narratives. Many measures related to the nominal group show a Year-by-Year increase. These include the **use of pre-modification plus head**, both **in ranking** and **in all clauses**, the use of **NumerativeThing**, and the use of **DeicticEpithetThing**.

In summary, the number of **words**, **sentences** and **lexical items** provide a simple way to determining the Year of a Narrative text. **Lexical items per sentence**, **clause simplexes**, **1-clause sentences** and **2-clause sentences** also increase from Year to Year, but in less marked ways. Logico-semantic relationships and clause embedding provide a less robust way of determining Year, compounded in this set of texts by Year 5 often appearing to be at a more advanced stage than Year 6. With respect to Processes, there is a general slight decrease of material processes, a slight increase of *relational processes* and a stronger increase of verbal processes. More firmly, and interestingly, the **proportion of verbal group simplexes, increasing** (or **complexes, decreasing**) provide a good guide to writing level. With respect to Participants, those associated with material, relational and verbal processes vary regularly with Year. Use of Circumstances displays no appreciable patterning across the years, but an increasing range of Circumstances is noticeable, and both the number of **circumstances used per sentence** and the number of sentences used per clause increases with Year. Nominal groups provide some further guide to writing development, for example in **the number of nominal groups in ranking clauses** and the use of **pre-modification plus head**. Overall, the sentence-level analyses and the use of Circumstances provide the clearest guide to writing development across the Narrative texts.

7.3 Comparison of Years 3-4-5-6 Expositions

In this Section, the Expositions from Year 3, 4, 5 and 6 will be compared. For brevity, the text-group that makes up the Year 3 Expositions will be referred to as Y3E; likewise, the other Year text-groups will be abbreviated as Y4E, Y5E and Y6E.

As for Narratives, it should be borne in mind that each of the text groups itself is made up of 4 texts, so in total 16 texts are involved in this cross-Year comparison. However, at each Year level, the data from the 4 texts has been combined, so the direct comparison will be made between the 4 entities Y3E, Y4E, Y5E and Y6E. It should also be borne in mind that the data set is rather small to be making detailed and robust quantitative observations, but general trends may still be observed.

Detailed information about each text-group has been already set out in Chapter 5. Apart from the initial Overview Table 7. 3-1, which draws summary sentence level information for each Year, the data will not be reproduced. The reader is able to consult the full data sets in the Tables in Chapter 5. Where necessary, to distinguish the Tables from the different Year groups, the leading number will be replaced with Y#N, where # is either 3, 4, 5 or 6. To illustrate, the twelfth Table in the Section on Year 5 Expositions will be denoted Table Y5E-12. (This is equivalent to Table 5.3-12, which notation may be unpacked as Chapter 5, namely Expositions, third Year group, namely Year 5, twelfth Table.)

7.3.1 Texts (Expositions Years 3-4-5-6)

All texts are reproduced in Chapter 5, along with some whole-text features, in Sections

- 5.1 (Year 3, Tables 5. 1-1 to 5. 1-8),
- 5.2 (Year 4, Tables 5. 2-1 to 5. 2-8),
- 5.3 (Year 5, Tables 5. 3-1 to 5. 3-8) and
- 5.4 (Year 6, Tables 5. 4-1 to 5. 4-8).

7.3.2 Sentence level information (Expositions Years 3-4-5-6)

We first consider the whole of text information set out in Tables Y3E-9, Y4E-9, Y5E-9 and Y6E-9. This information is collected here, in Table 7. 3-1:

Table 7. 3-1 Overview (Expositions Years 3-4-5-6)

A	B	C	D	E	F	G	H	I	J	K
Year	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
3	36	14	22	67	3	2	231	462	3.5	7.0
4	27	3	24	80	8	0	250	551	3.3	7.0
5	53	26	27	94	13	1	326	731	3.6	8.1
6	46	23	23	86	18	4	363	746	4.3	8.9

Unlike Narratives, the lengths of Expositions do not increase with increasing Year when examining the number of *sentences*. Column B shows the data for Years 3, 4, 5 and 6 is {36, 27, 53, 46}, with the longest texts belonging to Year 5, followed in order by Year 6, Year 3 and Year 4. There is no particular pattern discernible, and thus number of sentences is not a good indicator of the Year from which a particular Exposition comes.

However, a different behaviour to that noted for the numbers of sentences is observed for the number of **words**, Column I, namely, there is an increase as the Years proceed. The number of words in the Expositions of the successive Years are {462, 551, 731, 746}. The increases in words between the successive years deduced from these figures are 89, 180, 15. While showing an increase over the Years, the change in length of 15 words out of about 740 between Year 5 (731 words) and Year 6 (746 words) amounts to approximately 2% and is almost negligible. On dividing the total number of words by four, the average number of words used in Expositions in each Year is seen to increase as {115.5, 137.8, 182.8, 186.5}.

The same pattern also applies to **lexical items**, Column H, although here the distinction between the Years is smaller. The lexical items per Exposition, listed in order from Year 3 to Year 6, are {231, 250, 326, 363} and the successive differences are 19, 76 and 37. Thus the average number of lexical items used in Expositions in each Year increases as {57.8, 62.5, 81.5, 90.8}.

Now we turn to the clause. The number of clause *simplexes*, Column C, seesaws down-up-down, {14, 3, 26, 23}. The number of clause complexes, Column D, increases from Year 3 to Year 4 to Year 5, then drops back in Year 6: {22, 24, 27, 23}. Likewise, the total number of clauses, Column E, shows an increase over the first three Years then a drop in Year 6: {67, 80, 94, 86}.

There is a steady increase in **simplex embedding** with Year and an irregular increase in complex embedding with Year. The clauses with simplex embedding, Column F, increase as {3, 8, 13, 18}. The increase from Year to Year is exactly the same, being precisely 5 more clauses added per Year. The **fraction of clauses with simplex embedding** (that is, the number of clauses with simplex embedding divided by the total number of clauses) also shows a steady increase from Year to Year, {6%, 11%, 16%, 22%}. (These figures are not given in the Table, but are simply the ratio of Column F to Column E.) There are few clauses with complex embedding, Column G, {2, 0, 1, 4}, and it is unwise to read too much into the limited data. However, if Year 3 is left aside, there is then an increase between the successive Years, so we might say that, in general, complex embedding increases with Year.

We come to the final two Columns of the Table and in each case observe an increase with Year for three out of the four Years. Lexical density, Column J, has the values {3.5, 3.3, 3.6, 4.3}. Year 4 has a value slightly less than Year 3. However, if either Year 3 or Year 4 is omitted, the remaining three years show a steady progression, from either 3.5 or 3.3 to 3.6 then to 4.3. The same pattern applies to mean clause length, Column K. The figures for successive Years are given in the Table only to one decimal place, and to that level of accuracy Years 3 and Year 4 are the same at 7.0. Looked at more closely, to two decimal places, the set is {7.04, 6.96, 8.14, 8.91}. So, as with lexical density, if either one of Year 3 or Year 4 is ignored, the remaining three Years show an ever-increasing behaviour. Thus for both lexical density and mean clause length we are justified to say, generally speaking (meaning three out of four Years), an increase is evident from Year to Year.

7.3.3 Sentence constituents (Expositions Years 3-4-5-6)

Further details on the sentences and constituent clauses are found in Tables Y3E-10, Y4E-10, Y5E-10 and Y6E-10 (Tables 5. X-10 of Chapter 5) dealing with sentence length in terms of clauses and with dependency (either paratactic, hypotactic or both). It might be expected that the lengths of sentences used increases with Year, but there is no trend towards this. The longest sentences used in Year 3, 4, 5 and 6 comprise 4, 7, 5 and 6 clauses, respectively. Neither is there a trend from single-clause to multi-clause sentences: in Years 3, 4, 5 and 6 the fraction of clause simplexes are 39%, 11%, 49% and 50% and the fraction of two-clause sentences are 42%, 33%, 32% and 33%. A distinction may be made between, on the one hand, Year 3 and Year 4, where the 2-clause sentences are most common, and, on the other hand, Year 5 and Year 6, where 1-clause sentences are most common; however, it is not clear that this distinction is significant.

Little can be said about explicit hypotactic and paratactic relations between clauses. There is no regular pattern of use. If any trend can be discerned, it tends to be a decrease rather than an increase: when looked at proportionally, the use of hypotactic-only relations starts relatively high in Year 3, rises to Year 4, then decreases through to Year 6 {31%, 41%, 32%, 26%}. A similar pattern peaking with Year 4 holds for overall use of paratactic and hypotactic relations {14%, 34%, 11%, 13%} and in absolute terms also for all nexuses {31, 53, 41, 40}. In many measures, it is Year 4 that does the most – Year 4 has the most varied sentence lengths, and therefore uses the largest number of conjunctions. The variation in the conjunction types is explored more fully in the Tables -12.

The summarising information in Tables Y3E-11, Y4E-11, Y5E-11 and Y6E-11 (Tables 5.X-11 of Chapter 5) reflects the non-systematic use evident above. For hypotactic nexuses, {20, 37, 29, 25} and total nexuses, {31, 53, 41, 40}, usage moves from a low in Year 3, to a high in Year 4, then decreasing through Year 5 to Year 6. For fraction of paratactic nexuses, usage moves from a high in Year 3, decreases to Year 5, then rises again in Year 6 {36%, 30%, 29%, 40%} (with the complementary fraction of hypotactic nexuses going as {64%, 70%, 71%, 60%}) and

the ratio of hypotactic to paratactic nexuses (not shown in the Tables, but easily calculated) goes as {1.82, 2.31, 2.42, 1.5}. There is always a large, if not the largest, change between Year 3 Year 4.

When the logic-semantic relations are examined more closely (Tables 5.X-12), few regularities emerge. The broad-brush features of total paratactic dependency, {11, 16, 13, 16} and hypotactic dependency, {20, 37, 28, 24}, reveal not much more than that Year 4 is high. At a finer level of detail, looking at hypotactic dependency of any sort, we see that the use of finite clauses {17, 35, 26, 23} greatly outnumbers the use of *non-finite clauses* {3, 2, 2, 1}, which in fact declines over the years both in real and, with a glitch at Year 5, fractional terms {15%, 5.4%, 7.1%. 4.2%}.

Looking purely at the logico-semantic meanings being generated through expansion does not add to the development picture. For the *different meanings used*, the numbers are {8, 8, 7, 7}. The sub-categories employed are *elaboration: description* {1, 1, 3, 2}, *extension: addition`additive* {6, 13, 9, 13}, *addition`adversative* {2, 2, 3, 2} and *variation* {2, 0, 0, 0}; enhancement: temporal {3, 1, 4, 0}, *:manner* {0, 1, 0, 1}, *:cause* {9, 14, 8, 10} and :conditional {1, 8, 6, 4}. There is no systematic change evident, though Year 4 is remarkable in its comparatively high usage of *extension: addition`additive*, and *enhancement: cause* and *:conditional* meanings.

Meanings generated through projection also demonstrate an irregular pattern. Unsurprisingly, there is strong, though unsystematic, usage of projection: idea across the grades {6, 9, 8, 6}. When it comes to *projection: locution*, Year 4 again are the standout {1, 4, 0, 0}. This, along with the strong use of *cause* and *condition* in Year 4, may indicate that Year 4 as a grade are taught aspects of exposition, where their “I think”s develop for some causal reasons and a series of conditions into “I recommend”, lessons that do not necessarily remain through Years 5 and 6.

Tables Y3E-13, Y4E-13, Y5E-13 and Y6E-13 (corresponding to Tables 5.X-13) distinguish the clauses that have embedding and those that do not. In brief, the embeddedness of clauses shows unsystematic variations from Year to Year. The total number of clauses that contain embedding tends to increase from Year to Year: {8, 8, 14, 22}. Reflecting the increasing length of the texts, the total number of clauses that

do not contain embedding across the Years also tends to increase: {59, 72, 80, 64}. These trends are supported fractionally: the fraction of clauses with embedding, {12%, 10%, 15%, 26%}, with the complementary fraction of clauses without embedding generally decreasing, {88%, 90%, 85%, 74%}. In any Year, though, there are far more clauses without embedding than with embedding.

When the embedding is examined in detail (Tables Y3E-14, Y4E-14, Y5E-14 and Y6E-14, corresponding to Tables 5.X-14), a regular change across the Years is evident. Both uses of embedded clauses – as Qualifier in a nominal group and as the whole nominal group – increases across the Years, with **total instances of clause embeddings** in the Expositions appearing {5, 8, 14, 24} times. While the use of embedded clauses as **Qualifier in a nominal group** begins as 100% usage in Year 3 and decreases **fractionally** across the Years {100%, 86%, 79%, 63%}, the use of an embedded clause as **the whole nominal group** increases across the Years **both fractionally** {0%, 13%, 21%, 38%} and absolutely {0, 1, 3, 8}. (As will be seen, there is an increase in use of relational identifying processes, which is concomitant with this increase in the use of clH.) Use of embedded clauses in **Participants** increases both **fractionally** {80%, 88%, 93%, 96%} and **absolutely** {4, 7, 12, 23} and decreases **fractionally** in **Circumstances** {20%, 13%, 7%, 4%}.

This pattern continues in the more detailed Tables Y3E-15, Y4E-15, Y5E-15 and Y6E-15 (Tables 5.X-15), which examine embedding with complexity foregrounded. The use of **embedded simplexes** increases from Year to Year {3, 8, 13, 20}, but the use of embedded complexes is more erratic {5, 0, 2, 9}. These Tables also show that the instances embedding within embedding begin in Year 5, {0, 0, 1, 1} and that instances of multiple embedding in one clause first appear in Year 6, {0, 0, 0, 2}. Embedded clauses are viewed individually for the counts that appear in Tables Y3E-16, Y4E-16, Y5E-16 and Y6E-16 (Tables 5.X-16), and the increasing usage of embedded clauses is re-inforced {8, 8, 16, 30}, as is **use as Participants** (rather than in Circumstances) is re-inforced {6, 7, 14, 29}, as is the form of these Participants as increasingly comprising a **whole clause as nominal group** {0, 1, 4, 9}.

7.3.4 Transitivity in All Expositions

7.3.4.1 Processes in All Expositions

7.3.4.1.1 Functional types of Processes in All Expositions

Process types are set out in the Tables Y3E-17, Y4E-17, Y5E-17 and Y6E-17, corresponding to Tables 5.X-17.

Looking at the bottom of the tables first, it is evident that, in counting the *number of different process types*, there is little change from Year to Year. Within *ranking clauses*, the numbers are {4, 5, 4, 5}, within *embedded clauses*, {3, 4, 3, 4} and in total {4, 5, 4, 5}. No process types are used exclusively in embedded clauses. Behavioural clauses are not employed at all.

For all years, unsurprisingly, Principal processes far outnumber Subsidiary processes. In this genre group, the use of *principal processes* fluctuates in a down, up, down pattern {97%, 91%, 96%, 93%,}, a similar pattern to Narratives, but at about a 10% increase, meaning a corresponding smaller usage of *subsidiary processes*, showing an up, down, up pattern: {3%, 9%, 4%, 7%}.

Across the Years, material clauses are used most frequently {all: 61%, 45%, 58%, 42%}, followed by relational {all: 26%, 23%, 28%, 38%}, then by *mental* {all: 11%, 23%, 10%, 16%}, but in differing unsystematic proportions. This tendency changes slightly if we just look at ranking clauses: a high percentage of embedded clauses in Year 6, {11%, 9%, 15%, 26%}, means that once they are removed from the calculation, Year 6 is in fact balanced in its use of material and relational ranking clauses. In the Subsidiary processes, Years 3 and 4 favour verbal over existential, whereas Years 5 and 6 prefer existential over verbal, with no behavioural used at all.

Use of material processes shows a general decrease across the Years {all: 61%, 45%, 58%, 42%}. Year 4 uses almost double the *mental processes* of any other Year {all: 11%, 23%, 10%, 16%}, and includes at least one example of each sub-type (cognition {8, 14, 9, 17}, *desideration* {0, 2, 1, 0}, emotion {0, 2, 1, 0} and

perception {0, 1, 1, 0}). With regard to relational processes, there is some variation in the use of relational:attributive processes, with Year 3 surprisingly high, {ranking only: 22%, 17%, 23%, 29%} {all: 24%, 20%, 22%, 26%}. Attributive intensive processes {ranking only: 15%, 8%, 20%, 23%} {all: 16%, 8%, 20%, 21%} register a severe drop at Year 4, possibly subsidised by an increase in *attributive possessive processes* {all: 8%, 11%, 2%, 5%} {ranking only: 8%, 13%, 2%, 6%}. There is displayed a systematic increase in the use of **relational:identifying processes**, {ranking only: 2%, 4%, 7%, 11%}. This trend is apparent in the raw scores of both **ranking** {1, 3, 6, 9} and *all* clauses {1, 3, 6, 13}. Digging a little deeper, it becomes apparent that these figures apply for **identifying intensive processes**: the increase is not disturbed if the single use of an embedded identifying circumstantial process in Years 5 and Year 6 {0, 0, 1, 1} are taken into account. This usage may or may not indicate the uptake of this type of relational process in Year 5/6. Regarding subsidiary processes, it is perhaps predictable for this genre that there is no use of behavioural processes. Overall use of *verbal processes*, {all: 3%, 7%, 0%, 3%} {ranking only: 3%, 6%, 0%, 4%}, shows a peak in Year 4, while existential {all: 0%, 2%, 5%, 3%} {ranking only: 0%, 3%, 4%, 4%} appears to trend towards an increase of use.

The use of embedded clauses themselves has already been examined, but here we can see the usage in terms of process type. All but verbal show a general trend of increasing use: material {5%, 5%, 11%, 14%}, mental {1%, 2%, 0%, 3%}, relational {4%, 1%, 3%, 8%}, *verbal* {0%, 0%, 1%, 0%} and existential {0%, 0%, 1%, 1%}. This shows no systematic use, but a clear increase by Year 6, mentioned above as {11%, 9%, 15%, 26%}.

7.3.4.1.2 Realisation – form of Processes in All Expositions

We now turn to the complexity of the verbal groups that realise the processes, Tables Y3E-18, Y4E-18, Y5E-18 and Y6E-18 (Tables 5.X-18). While **absolute numbers for verbal group simplexes in all clauses** increase with Year, {41, 72, 82, 89}, contributing to the steady increase in the **total number of processes**, {75, 88, 109, 116}, already noted above, the large leap between Year 3 and 4 means that the

fractional increase is not steady and that the pattern holds only for three out of the four Years: {all: 55%, 82%, 75%, 77%}; still, it is a general overall increase in verbal group simplexes. This pattern is scattered when broken down into *ranking verbal group simplexes*: {ranking only: 51%, 81%, 77%, 72%}. Of the total verbal group simplexes {embedded: 9%, 8%, 10%, 23%} are embedded.

Use of verbal group complexes is now examined. The pattern for all verbal group complexes is a three-in-four general decrease when all clauses are considered {all: 45%, 18%, 25%, 23%}, with Year 3 showing the highest usage of verbal group complexes before a dip to Year 4. When considering ranking clauses only, {ranking only: 49%, 19%, 24%, 28%}, the high use by Year 3 and dip to Year 4 is again apparent, with then an increase through to Year 6. Of the total verbal group complexes in each year, {embedded: 1%, 1%, 5%, 3%} is embedded.

In general, embedded clauses aside, usage of verbal group simplexes and verbal group complexes displays a large leap between Years 3 and 4, surprisingly up in the first case and down in the second.

Use of phrasal verbs in ranking clauses, {ranking only: 0%, 3%, 7%, 7%} tends to increase. Use of modality in the verb in the form of *modal adjuncts* {ranking only: 10%, 4%, 9%, 2%}, {all: 9%, 3%, 7%, 3%} is not very high, and generally decreases over the years. Modal finites are used much more {ranking only: 43%, 46%, 40%, 29%}, {all: 39%, 42%, 36%, 26%}, still generally decreasing to Year 6.

Further detail regarding the verbal group complexes that realise processes is found in Tables Y3E-19, Y4E-19, Y5E-19 and Y6E-19 (Tables 5.X-19). The occurrence, as shown above, is (for all clauses) {34, 16, 27, 27}. For simplicity, comparisons will be confined to proportions of all clauses. Looking at the type of complexity is simplified in the case of Expositions in that there is no instance of parataxis; all complexity is carried hypotactically. Commonly across the Years, expansion {82%, 63%, 59%, 67%} is used more than projection {18%, 25%, 33% 19%}. Within expansion, *extension* is most used, {47%, 50%, 37%, 37%}, followed by elaboration, {27%, 6%, 15%, 26%}, then by enhancement, {9%, 6%, 0%, 4%}, but each shows little sort of developmental pattern of use. However, the use of verbal group

complexes with multiple relations never decreases across the Years {0%, 13%, 15%, 15%}. The few **embedded verbal group complexes** in the Expositions represent varying, slightly increasing, proportions of the total number of verbal group complexes: {3%, 6%, 7%, 11%}.

7.3.4.2 Participants in All Expositions

7.3.4.2.1 Functional types of Participants in All Expositions

We now come to the functional roles of Participants, as set out in Tables Y3E-21, Y4E-21, Y5E-21 and Y6E-21 (Tables 5.X-21). There are a possible 26 participant roles that writers choose from – Actor, Goal, Carrier, Attribute, and so on. The count of the different participant roles used by students shows a dip then recovery: {14, 13, 12, 13}. The count in Year 3 is highest at 14. The same pattern occurs for different Participant roles among the ranking clauses, {14, 13, 12, 13}. Within the non-ranking clauses, there is no regular pattern: {6, 9, 5, 9}.

As would be expected, usage of Participants mirrors the use of Processes and increases with Year both in **all clauses**, {119, 136, 168, 174} and in **embedded clauses**, {8, 11, 14, 35}, the steep jump in Year 6 in the latter being countered by a slight decrease in Year 6 ranking clause Participants {111, 125, 154, 139}. As with the Processes, there is no appreciable pattern of development across the Years for individual Participant roles, except that the use of **Token** increases in both ranking, {1, 2, 5, 9} and all clauses, {1, 2, 5, 13}, and fractionally, {1%, 2%, 3%, 8%}. Complementary use of **Value** mirrors this, with minor variation: ranking {1, 3, 6, 9}, all, {1, 3, 6, 12} and fractionally, {1%, 2%, 4%, 7%}. The marked jump in the use of embedded identifying: intensive clauses in Year 6 is evident.

Phenomenons begin to be used in Year 4 (all clauses, {0, 7, 5, 6}), perhaps marking a shift towards nominalising the possible projected clauses indicated by sensors {8, 20, 11, 12} in mental clauses, but there is not regular pattern associated with usage, so this remains speculative.

Summarising for Participant roles associated with the Processes used in Expositions, the best general development of use that can be found is a pattern of three out of four. Examining from most frequently used to less frequently used, material roles use approximately half the positions in all Years, dipping in Year 6: {59%, 47%, 55%, 35%}. The dip in Year 6 actually indicates a change to a dominant use of relational roles for this Year only; the percentages go {31%, 28%, 33%, 48%}. Mental roles are used in the proportions of {7%, 17%, 10%, 12%}. *Verbal* roles are used as {3%, 7%, 0%, 3%} and *existential* go as {0%, 2%, 3%, 2%}. Behavioural clauses are not used.

The Tables 4.X-22 attempt to compare usage of directly and obliquely involved Participant roles. Five of the six process types have associated with them both directly and indirectly involved Participants roles. One – existential – has only one, the directly associated existent. This means there are altogether 13 possibilities, and these are identified in Column B of the Tables. In comparing across the Years, 7 of the 13 possibilities are identical in all Years. The six items that are not identical across the Years are: *material/oblique*, {4, 3, 2, 2}, none employing the available 5; *mental/direct* (2 available), {1, 2, 2, 2}; *relational/oblique* (3 available), {2, 0, 1, 0}; *verbal/direct* {2, 2, 0, 1} and *verbal/oblique* (2 available), {0, 0, 0, 1} and *existential* (1 available), {0, 1, 1, 1}. The overall observation from this data set is, in light of the smallness and similarity of these numbers, directness versus obliquity does not represent an effective means of gauging writing development in this context.

7.3.4.2.2 Realisation – form of Participants in All Expositions

Participants may be realised by three different classes of group/phrase – the nominal group, the prepositional phrase, and rarely, the adverbial group. The nominal group can manifest in three ways: as a noun group where the Head of the group is a noun, as an adjectival group where the Head of the group is an adjective, and as a group where the Head is realised by a whole embedded clause, denoted here ‘clause-as-head’.

The forms taken by the Participants in Expositions across the Years are presented in Tables Y3E-23, Y4E-23, Y5E-23 and Y6E-23; Table 5.X-23. Nominal groups are used evenly across the Years; taking all participants into account, in ranking and embedded clauses, realisation as nominal group is very even: {all: 99%, 99%, 98%, 97%}. The few remaining participants are realised by **prepositional phrases** {all: 0%, 1%, 2%, 3%} and *adverbial groups* {all: 1%, 0%, 0%, 1%}. Looking at the different manifestations of the nominal groups, we see that conventional *noun groups* are used similarly {87%, 93%, 88%, 88%}, adjectival groups {13%, 4%, 8%, 5%} are used somewhat erratically, and use of **clause-as-head** {0%, 1%, 2%, 4%} increases regularly across the years.

We have already noticed the increasing use of embedded clauses in Expositions {12%, 10%, 15%, 26%} (p. 529). That tendency is reflected here and can be isolated when looking at participants realised as nominal groups in both ranking and embedded clauses. Use generally falls in ranking clauses, with a steep drop in Year 6 {92%, 91%, 90%, 77%}, while the opposite is true in **embedded** clauses {7%, 7%, 8%, 20%}. Looking further into the manifestations of the nominal group, we see this same pattern reflected only in the noun groups: {ranking: 81%, 86%, 79%, 68%} and {embedded: 5%, 7%, 7%, 18%}. Other distinctions in ranking/embedded usage are not worth commenting on.

The form of the participant is examined in greater detail in Tables 5.X-24, which, in the first instance, distinguishes between participants realised by one single group or by a group complex. In the case of Expositions, the usage of nominal group complexes, all of them noun group complexes, is {1%, 0%, 3%, 1%} across the years, in ranking clauses in Years 1 and 3, in embedded clauses in Year 4, and in both in Year 6.

Looking now at Participants realised by single nominal groups, in both ranking and embedded clauses, those consisting of Head only, {51%, 43%, 40%, 46%} show a general decrease with a spike at Year 6, those with Head plus a pre-modifying element, {31%, 43%, 39%, 25%} show a higher use in Year 3, then a general decrease across the Year groups, whereas those with any sort of post-modifying element show a general increase and a sharp jump at Year 6: {3%, 7%, 7%, 15%}.

Use of conventional noun groups heavily influences these trends, such that the figures vary little from the larger class figures presented above. The use of nominal groups in prepositional phrases to realise participants does nothing to disturb the pattern above, with use of a *post-modifying element*, {0%, 0%, 0%, 1%} adding to the increase in Year 6.

The forms of the Participants in Expositions seem to become increasingly complex as the Years progress. This is reflected in an increasing use of post-modification of the Head in noun groups (both stand-alone and in prepositional phrases). Year 6 also uses more embedding than earlier Years, in both post-modification and as whole Participants. Although not re-presented here, the same sorts of amplifications are happening in the embedded clauses as in the ranking clauses. As always, as the numbers get smaller, the fluctuation increases, but there is little doubt about the overall upward trend in these areas.

7.3.4.3 Circumstances (Expositions Years 3-4-5-6)

7.3.4.3.1 Functional types of Circumstances in All Expositions

Tables Y3E-26, Y4E-26, Y5E-26 and Y6E-26 (equivalent to Table 5.X-26 in each section). deal with the circumstances used in Narrative writing. *Numbers of Circumstances* utilised in Expositions shows a slight though irregular increase from Year to Year in the raw data: {all: 28, 20, 36, 34}. This breaks down to *Circumstances used in ranking clauses* showing a fractional decrease {96%, 100%, 84%, 82%} while the Circumstances used in embedded clauses, {4%, 0%, 16%, 18%}, shows a generally increased use. Calculations of the *number of circumstances used per sentence*, {0.78, 0.74, 0.68, 0.74}, and of *circumstances used per clause*, {0.42, 0.25, 0.38, 0.40}, show little.

The number of different Circumstances types used across the Years shows a general pattern of increase: {8, 6, 10, 12}. Location:place is always most common {13, 5, 13, 14} {46%, 25%, 36%, 41%}. Second in usage varies across the Years: for Years 3 and 4, it is location:time, {5, 5, 3, 1} {18%, 25%, 11%, 3%}, for Year 5 it is

cause:reason, { 2, 1, 5, 2 } {7%, 5%, 14%, 3%} and for Year 6, it is matter {0, 0, 2, 4} {0%, 0%, 6%, 12%}. It is worth observing apropos of *cause:reason* (Year 5's second favourite) that the other Circumstances of cause are also used in Expositions, especially Year 6, who uses all three sub-types – *cause:behalf*, {2, 0, 0, 3} {7%, 0%, 0%, 9%} (it is surprising to see Year 3 using *cause:behalf*) and *cause:purpose* {0, 0, 0, 2} {0%, 0%, 0%, 6%}. Adding the causes together, we can see, apart from low Year 4 use, a pattern of sustained use {14%, 5%, 14%, 14%}, showing Year 6 becoming more nuanced in their use of cause. Otherwise, types of Circumstances utilised in Expositions show little to no development from Year to Year.

7.3.4.3.2 Realisation of Circumstances in All Expositions

Only erratic development across the Years is evident in the forms taken by the Circumstances, given in overview in Tables 5.X-27. As has already been noted, while use of Circumstances in Year 3 is less than in Year 6, there is no discernible pattern in between, with the raw scores showing Year 4 dropping below Year 3 and Year 5 exhibiting most use, {28, 20, 36, 34}. This general observation can be refined when we examine the forms that Circumstances take, and see this pattern reflected in usage of *prepositional phrases* {71%, 60%, 83%, 71%}, except that Year 3 and Year 6 use the same number of prepositional phrases. Usage of *adverbial group* also shows no change at the extremes, but Years 4 and 5 reverse their use {21%, 40%, 14%, 21%}. The use of the noun group shows the most overall increase across the years, but it is scant, merely 2%: {7%, 0%, 3%, 9%}.

There is not much to say about development when looking at ranking and embedded clauses separately. In looking only at the form of Circumstances **in ranking clauses**, we see that use of the adverbial group does register a regular decrease from year 3 to Year 6 with the same spike at Year 4, {18%, 40%, 11%, 15%}, the prepositional phrase a more general decrease, {71%, 60%, 69%, 59%}, and the *noun group* the same erratic fluctuation, {7%, 0%, 3%, 9%}.

In **embedded clauses** the trend is for use of **prepositional phrases** to increase, {0%, 0%, 14%, 12%} and the use of *adverbial group* to reflect a possible increase, {4%, 0%, 3%, 6%}.

To look at further detail, we turn to Tables 5.X-28. The use of *noun group complexes* (including in the noun groups of prepositional phrases) happens all in ranking clauses {4, 0, 0, 2}times, {14%, 0%, 3%, 6%}. Concerning single noun groups, there is a pattern of preference discernible – of the three amplifying phases examined, the noun groups involving *head and a pre-modifying element* are the most common, {43%, 40%, 50%, 41%} compared to those of Head only {21%, 15%, 22%, 27%} and those with a post-modifying element {0%, 5%, 14%, 6%}. The use of post-modification shows a disappointing fall in Year 6.

7.3.4.4 The Nominal Group – a special case: in All Expositions

Information about the nominal group is set out in Tables Y3E-30, Y4E-30, Y5E-30 and Y-6E-30 (Tables 5.X-30), to examine all nominal groups, whether they are functioning in/as Participants or in/as Circumstances, in terms of the three amplifying phases examined, nominal groups which are head only, those which incorporate some pre-modifying function, and those which have a post-modifying function. Incorporated into the Tables are those elements of nominal groups which themselves can be identified as a nominal group, like a qualifier, either prepositional phrase or clause, or those involved as a clause acting as the whole head, or those which are themselves group complexes. Thus the presence of the ‘other’ Column in the Tables.

The overall trend is for nominal groups to be used more frequently by the higher Year groups; in **all clauses**, the use across the Years is {151, 161, 231, 241}. Use in **embedded clauses** also increases: {8, 10, 19, 40}, with the percentage of **use in ranking clauses** decreasing with Year, {84%, 84%, 75%, 63%}.

When examining nominal groups of Head only, the only discernible pattern across the Years is that the three configurations examined are used in the same order of

popularity. The most common manifestation is where Head conflates with Thing. Usage across the Years for all clauses is {71, 58, 84, 94}, displaying no pattern proportionally, but tending to take up between a third and a half of all usages, {47%, 36%, 36%, 39%}. A similar non pattern holds when the *Head=Epithet* {15, 7, 14, 9}, where use of other Elliptical Heads {1, 3, 3, 6} shows an increasing trend.

When examining nominal groups with **pre-modification**, the following increasing patterns are found: Head=Thing {57, 77, 104, 94} and **Head=Numerative (Focus)**, {1, 3, 5, 6}. When examining nominal groups with **post-modification**, we find the greatest amount of pattern of development for **with qualifying phrase** {1, 6, 11, 16}, **with qualifying clause** {5, 7, 10, 15} and *with multiple qualifiers* {0, 0, 0, 1}.

Use of pronouns can be examined in Tables Y3E-31, Y4E-31, Y5E-31 and Y6E-31 (Tables 5.X-31). There is evidence of development in the use of **pronouns as Participants** in Expositions: use tends to decrease over the Years: {67.6%, 62.1%, 59.5%, 58.5%}. In examining other noun-types used as single word Participants, use of **proper nouns** shows a steady increase, with the largest increases showing between Years 3 and 4, and particularly between Years 5 and 6: {0%, 10.3%, 10.7%, 23.4%}. Use of **common nouns** shows an irregular decrease: {32.4%, 27.6%, 29.8%, 18.1%}.

Tables 5.X-32 are intended to examine pre-modification in the nominal group focusing on the most commonly used Head=Thing. For Expositions, usage across the Years is {57, 77, 104, 94}. However, there appears to be very little variation in pre-modification in these texts.

7.3.5 Summary of All Expositions

Let us now bring together the main findings about Expositions. There is consistent strong trend of increase, though not always at a consistent rate, in the number of **words** and the number of **lexical items** with increasing Year. **Number of clauses with embedding** increases, as does the **fraction of clause with embedding per clause**. Drilling down, the **number of clauses with simplex embedding** and

percentage of clauses with simplex embedding also increase with Year but the clauses with complex embedding is erratic. These parameters are the most reliable in placing a particular text in a Year group. Other parameters involving these whole text features are less reliable, though several show a pattern where there is an increase until Year 5, then a dip to the Year 6 value. An example of this pattern is seen in the number of clauses, and similarly in the number of clause complexes per text, a count of the grammatical items. The persistence of the Year 5 value exceeding the Year 6 value may point to little development happening between Years 5 and 6. There is a further set of parameters where a steady increase across the years is interrupted by a spike at Year 4; these include lexical density, words per clause and words per sentence. The occurrence of a spike at Year 4 is not uncommon throughout the examined parameters of these texts; it may point to a Year 4 cohort anomalously above average; alternatively, it could point to the fact that Year 4 may be the school Year in which expositions are ‘taught’.

Generally speaking, any systematic relationship between Year and number/type of explicit dependency and logico-semantic relations is hard to see. However, through Years 3, 4 and 5, there is a general increase in the use of hypotactic relations, and a corresponding decrease in the use of paratactic relations. With the exception of an anomalously high value in Year 4, the use of all nexuses increases with Year. There is always a large, if not the largest, change between Year 3 and Year 4. The logico-semantic meanings generated through expansion do not add to the development picture.

In terms of clause embedding, there is a general (three Years out of four) increase in several measures from Year to Year. These include clauses that contain embedding, clauses that do not contain embedding, and the fraction of clauses with embedding (the fraction of clauses without embedding correspondingly decreasing). At a more detailed level, some clear-cut (four out of four Year) trends are observed. The **fractional use of an embedded clause as the whole nominal group** always increases and the **fractional use of an embedded clause as Qualifier in a nominal group** always decreases. Use of **embedded clauses in Participants** increases and in **Circumstances** decreases, when expressed as proportions. **Embedded simplexes**

increase from Year to Year, as do the form of Participants comprising a **whole clause as nominal group**. Year 6 uses a high proportion of embedded clauses

Now we turn to Transitivity analysis. All Years favour material processes, then relational processes, then *mental* processes. Use of material processes generally decreases across the Years, whereas that of relational processes increases. In particular, use of **relational:identifying processes**, or more delicately, **relational:identifying intensive processes**, increases from Year to Year. The use of verbal processes peaks in Year 4 while existential processes display an increasing trend. Use of embedded clause increase across the Years, with a marked jump at Year 6. There is little change from Year to Year in the number of different process types, the full range apparently accessible from Year 3 onwards.

Use of verbal group simplexes in all clauses increase with Year, and the use of verbal group complexes decreases. *Phrasal verbs in ranking clauses* and *in all clauses* irregularly increase with Year. Interestingly, use of modal finites increases in Years 3 and 4, but then dips and plunges in Year 6, showing an overall decrease. Use of *modal adjuncts* also shows a general decrease of use.

Turning now to Participants, among the individual participant roles, only **Token** and **Value** show a consistent increase with Year and reflecting the fact that Year 6 makes much more use than the other Years of embedded identifying: intensive clauses. No strong patterns emerge in the use of relational, mental, existential and *verbal* roles and the analysis of *directness* versus *obliquity* has not revealed any clear trends.

Some forms of Participants show a definite increase with Year. This is true of **noun groups in embedded clauses** and use of groups with **clause-as-head in ranking clauses**. Many other uses show an increase in three out of four years, including nominal groups in ranking clauses, noun groups in ranking clauses and prepositional phrases in ranking clauses. Looked at in further detail, Participants with any sort of post-modifying element also show a general increase with Year, as do nominal groups with clause-as-head. It is notable that Year 6 uses much more embedding than the other Years.

We turn now to Circumstances. In no case do these show a consistent pattern (four out of four Years), but sometimes show a general increase (three out of four Years), for example, in the number of different circumstance types used, the use of circumstances of matter; and sometimes a general decrease (three out of four Years) for example, in the use of Location:place and location: time. Use of all circumstances of cause shows a steady use, with increased use by Year 6, who use all three forms balancing a surprising use of cause:behalf by Year 3. Only erratic development is evident in the forms taken by Circumstances.

As a special case, the nominal group has been considered across all Expositions. Many measures related to the **nominal group** show a Year-by-Year increase. In greater detail, **Head=Numerative (Focus)** increases in nominal groups with **pre-modification** and those using **qualifying phrases** and **qualifying clauses** as **post-modification** increase with year. Use of **pronouns** decreases fractionally across the Years, and this trend is also reflected in the use of personal pronouns.

In summary, in Expositions, the number of **words** and **lexical items** increases with Year. With respect to clauses, increases with Year are found for the **number of clauses with embedding**, the **fraction of clauses with embedding** and the **number of clauses with simplex embedding**. The placement of embedding is interesting – within each Year, the **fractional use of an embedded clause as the whole nominal group** always increases and the **fractional use of an embedded clause as Qualifier in a nominal group** always decreases. With respect to Processes, material then relational, then mental are most common for all Years. Use of material processes generally decreases, while use of **relational:identifying processes**, or more delicately, **relational: identifying intensive processes**, increases from Year to Year. Use of verbal group simplexes in all clauses increase with Year, and the use of verbal group complexes decreases. Use of modal finites generally, and use of *modal adjuncts* irregularly, decreases. With respect to **Participants**, usage increases from Year to Year, noticeably the usage of **Token** and **Value**. In contrast, Circumstances show little systematic change with Year. Many measures related to **nominal groups** show increase with Year, especially in **post-modification**, both in the use of **qualifying phrases** and of **qualifying clauses**. Use of **focus** also increases when nominal groups are being pre-modified. Use of **pronouns** decreases.

7.4 Comparison of Years 3-4-5-6 Reports

In this Section, Reports from Years 3, 4, 5 and 6 will be compared. For brevity, the text-group that makes up the Year 3 Reports will be referred to as Y3R; the successive other text-groups will be abbreviated as Y4R, Y5R and Y6R.

Each of the text groups itself is made up of 4 texts, so in total 16 texts are involved in the comparison. However, at each Year level, the data from 4 texts is combined, so the direct comparison is usually made between the 4 entities Y3R, Y4R, Y5R and Y6R. While the data set is rather small to be making quantitative observations, general trends may still be observed.

Detailed information about each text-group has been set out in Chapter 6. Apart from the initial Overview Table 7. 4-1 (which draws summary sentence level information for each Year), the data will not be reproduced. The reader may consult the full data sets in the Tables in Chapter 6. As needed, to distinguish the Tables from the different Year groups, the leading number will be replaced as Y#N, where # is either 3, 4, 5 or 6. Thus, the tenth Table in the Section on Year 4 Reports will be denoted Table Y4R-10. (This is equivalent to Table 6.2-12, which notations may be unpacked as Chapter 6, namely Reports, second Year group, namely Year 4, tenth Table.)

7.4.1 Texts (Reports Years 3-4-5-6)

All texts are reproduced in Chapter 6, along with some whole-text features, in Sections

- 6.1 (Year 3, Tables 6. 1-1 to 6. 1-8),
- 6.2 (Year 4, Tables 6. 2-1 to 6. 2-8),
- 6.3 (Year 5, Tables 6. 3-1 to 6. 3-8) and
- 6.4 (Year 6, Tables 6. 4-1 to 6. 4-8).

7.4.2 Sentence level information (Reports Years 3-4-5-6)

We first consider the whole-text information set out in Tables Y3R-9, Y4R-9, Y5R-9 and Y6N-9. The consolidated information is gathered here, in Table 7. 4-1:

Table 7. 4-1 Overview (Reports Years 3-4-5-6)

A	B	C	D	E	F	G	H	I	J	K
Year	Sentences	Clause simplex	Clause complex	Clauses	Clauses with simplex embedding	Clauses with complex embedding	Lexical items	Total words	Lexical density	Mean clause length (words)
3	49	33	18	76	10	0	249	513	3.4	6.8
4	79	41	38	135	9	2	544	977	3.9	7.2
5	77	54	23	107	12	1	479	871	4.6	8.2
6	78	45	33	127	11	0	628	1117	5.0	8.9

The final two Columns of Table 7. 4-1 show a steady increase with Year. The number of lexical items per clause, that is, **lexical density** (Column J) advances as {3.4, 3.9, 4.6, 5.0}. Likewise, the number of words per clause, that is, **mean clause length (words)** (Column K) increases in the order {6.8, 7.2, 8.2, 8.9} across the Years.

However, only these two of the measures of student writing presented in Table 7. 4-1 increase steadily with Year. A regular increase is the exception, rather than the rule, in this text group. A much more common pattern is a rise between Years 3 and 4, then a drop to Year 5, and a final rise to Year 6. This pattern is followed by sentences (Column B), clause complexes (Column D), clauses (Column E), lexical items (Column H) and total words (Column I).

Such an up-down-up pattern, that is, the number for Year 5 being less than the corresponding quantities for Year 4, suggests either the Year 4 data is anomalously high, or the Year 5 data is anomalously low (or, possibly, both). A way to decide between these possibilities is to remove the data from one or other of those Years and to examine the pattern of the remaining three Years. Removing the Year 4 data yields a regular increase with Year in all the aforementioned measures: sentences (Column B), clause complexes (Column D), clauses (Column E), lexical items (Column H) and total words (Column I). Removing the Year 5 data, however, only yields a

regular increase in lexical items (Column H) and total words (Column I). From this it is concluded an anomalously high set of values in Year 4, rather than an anomalously low set of values in Year 5, disrupting the regular increases that might be anticipated across the Years.

To determine more closely as to where the anomalously high figures in Year 4 may have their origin, it is useful to compare the figures from the individual texts, which appear in Tables Y3R-9, Y4R-9, Y5R-9 and Y6R-9 (Tables 6.1-9, 6.2-9, 6.3-9 and 6.4-9, respectively). In Table Y4R-9, it is seen text T37 stands out. T37 has the most clauses (47), not only of that Year group, but of the whole set of 16 reports. T37 also has the largest number of complexes (15) and the largest ratio of lexical items to grammatical items (1.58) of all the Reports. This single text has therefore tended to skew the result across the Year groups. As we discuss the Reports in greater detail, this anomaly will often be evident.

In closing the discussion of Table 7. 4-1, we turn to the three Columns not yet treated.

Clause simplex (Column C) go as {33, 41, 54, 45}. It might be said there is an overall increase, and there is a regular increase if either Year 5 or Year 6 are ignored. *Clauses with simplex embedding* (Column F) seesaw in the narrow range 9 to 12: {10, 9, 12, 11}. *Clauses with complex embedding* (Column G) are few, but likewise seesaw in a narrow range, here 0 to 2: {0, 2, 1, 0}.

7.4.3 Sentence constituents (Reports Years 3-4-5-6)

Further details on the sentences and constituent clauses are found in Tables Y3R-10, Y4R-10, Y5R-10 and Y6R-10 (Tables 6. R-10 of Chapter 6), dealing with sentence length in terms of clauses and with dependency, either paratactic, hypotactic or both. It might be expected that the lengths of sentences used increases with Year, and this is the general trend, but not holding in all cases. The longest sentences used in Year 3, 4, 5 and 6 comprise 4, 4, 3 and 5 clauses, respectively. Associated with this, it might be expected that there would be a shift from single-clause to multi-clause sentences. The number of 2-clause sentences goes as {12, 25, 16, 21} and the

number of 3-clause sentences goes as {5, 8, 7, 9}. In each case, a high number in Year 4 disrupts what would otherwise have been a regular increase. In percentage terms, the data is rather scattered: in Years 3, 4, 5 and 6 the *fractions of clause simplexes* are 65%, 52%, 70% and 58%; *the fractions of two-clause sentences* are 24%, 32%, 21% and 27%; *the fractions of three-clause sentences* are 10%, 10%, 9%, 12%. It is difficult to discern anything regular here.

If we set aside the Year 4 data, there is a regular increase with Year for hypotactic-only relations for 2-clause sentences {6, 16, 8, 16} and for all sentences {6, 20, 11, 17} and for both hypotactic and paratactic relations for 1-clause sentences {3, 5, 4, 6}. In contrast, setting aside now the Year 1 data, paratactic-only relations for 2-clause sentences {6, 9, 8, 5} and for all sentences {8, 10, 8, 7} decrease with increasing Year. Expressed as fractions of the total number of clauses, the percentage of hypotactic-only goes as {12%, 25%, 14%, 22%} and the **percentage of paratactic-only** goes as {16%, 12%, 10%, 9%} – the only entirely regular trend in this data set.

Again, setting aside Year 4, there is a regular increase for nexuses in 2-clause sentences {12, 25, 16, 21}, 3-clause sentences {10, 16, 14, 18} and in total {25, 56, 30, 49} as well as in the number of nexuses per sentence {0.49, 0.71, 0.39, 0.63}.

The pattern of steady increase, excepting Year 4, continues in the Tables Y3R-11, Y4R-11, Y5R-11 and Y6R-11 (Tables 6.X-11 of Chapter 6). Neglecting Year 4, there is a regular increase in the number of hypotactic nexuses, {10, 35, 18, 30}, total nexuses, {25, 56, 30, 49}, fraction of hypotactic nexuses, {40%, 63%, 60%, 61%} (with complementary decrease in the fraction of paratactic nexuses, {60%, 37%, 40%, 39%}) and ratio of hypotactic to paratactic nexuses, {0.67, 1.67, 1.50, 1.58} (not shown in the Tables, but calculated readily from them). Among the parameters in these Tables, only the number of *paratactic nexuses* varies irregularly from Year to Year, {15, 21, 12, 19}.

Examined in detail, the logic-semantic relations show few regularities (Tables Y3R-12, Y4R-12, Y5R-12 and Y6R-12; that is, Tables 6.X-12). For example, the usage of the finite clause form in hypotaxis shows a remarkable jump from Year 3 to Year 4,

then a decline {5, 27, 17, 18}, whereas the usage of the non-finite clause form in hypotaxis, {5, 8, 1, 14}, would be a steady increase but for the anomalously low usage in Year 5. Within paratactic dependency, most examples concern expansion: extension: addition`additive, which varies in an up-down-up zigzag as {10, 18, 8, 14}. Within hypotactic dependency there are further examples of Year 4 disrupting what otherwise would be a steady increase, including expansion: enhancement: cause, {6, 14, 7, 10} and expansion: enhancement: temporal, {1, 13, 4, 8}. Across the many other details explored in Tables 6.X-12 there are usually too small a number of examples to discern significant trends.

Looking purely at the logico-semantic meanings being generated through expansion shows a general trend. For the number of different meanings used, the numbers are {6, 8, 7, 9}. The sub-categories employed are elaboration:description {3, 4, 2, 6}, extension:addition`additive {10, 18, 8, 14}, :addition`adversative {4, 1, 3, 6} and :variation {0, 0, 0, 1}; enhancement: temporal {2, 14, 5, 8}, :manner {0, 0, 0, 2}, :cause {9, 14, 7, 10} and :conditional {0, 5, 2, 1}. There is no systematic change evident, though Year 4 is remarkable in its comparatively high usage of extension:addition`additive, and enhancement: temporal and enhancement:cause meanings. Meanings generated through projection are confined to Year 5 and 6: locution {0, 0, 1, 0} and idea {0, 0, 2, 1}.

Tables Y3R-13, Y4R-13, Y5R-13 and Y6R-13 (corresponding to Tables 6.X-13) concern embedding in clauses. The familiar refrain of this discussion, that the numbers would fall in an ever-increasing sequence across the Years if it were not for a too-high value in Year 4, is repeated for many of the quantities that appear here. These include embedding in ranking clauses in 2-clause sentences {24, 50, 32, 42}, in ranking clauses in 3-clause sentences {15, 24, 21, 27} and in the total ranking clauses in sentences of any length {76, 135, 107, 127}. Especially, in the absence of embedding, the pattern holds for 1-clause, {28, 36, 46, 40}, 2-clause {21, 44, 30, 38}, 3-clause, {13, 24, 18, 26} and any-clause {66, 124, 94, 116} length sentences. The fraction of sentences without embedding likewise increases, {87%, 92%, 88%, 91%}, while the fraction of sentences with embedding accordingly decreases, {13%, 8%, 12%, 9%}. In brief, while the *sentences with embedding* are relatively few and

the number fluctuates from Year to Year {10, 11, 13, 11}, both the number and the fraction of sentences without embedding generally increases with Year.

The embedding is displayed in greater detail in Tables Y3R-14, Y4R-14, Y5R-14 and Y6R-14 (Tables 6.X-14). When summed up, all Years utilise *Qualifier in a nominal group*, {8, 8, 8, 7} more often than whole nominal group, {2, 3, 5, 4}, but neither show consistent development from Year to Year.

As might be expected, the difficulty in discerning clear trends from Year to Year continues in the more detailed Tables Y3R-15, Y4R-15, Y5R-15 and Y6R-15 (Tables 6.X-15). The *total clause embedding with simplexes* goes as {12, 9, 12, 11}, with complexes as {0, 2, 1, 0} and *in total* as {12, 11, 13, 11}; *total individual clauses embedded with simplexes* go as {13, 9, 12, 12}, with complexes as {0, 4, 2, 1} and *in total* as {13, 13, 14, 12}. Perhaps the most notable feature, especially in the total, is the consistency, rather than any development, across four Years.

A consistency, rather than development, across the Years is also on view in Tables 6.X-16. So, for example, usage *as qualifier in a nominal group in a Participant* goes as {10, 9, 9, 8}. This might be interpreted as either constant across the Years, or as very gradually declining. When the numbers become small, interpretation becomes more perilous. For example, *as whole nominal group in a Participant* oscillates as {2, 4, 2, 4}. The numbers here are small, and could be considered almost the same, each being 3 plus or minus 1. In all the Reports there is only one example of *as Qualifier in a nominal group in a Circumstance* (Year 3) and only 3 examples of *as whole nominal group in a Circumstance* (Year 5), but as to why each appears in one Year only and Years 4 and 6 have neither does not warrant further speculation.

7.4.4 Transitivity in All Reports

7.4.4.1 Processes in All Reports

7.4.4.1.1 Functional types of Processes in All Reports

The Process types are set out in the Tables Y3R-17, Y4R-17, Y5R-17 and Y6R-17, corresponding to Tables 6.X-17.

For all years, Principal processes far outnumber Subsidiary processes, and the proportion of *Principal processes* is relatively stable from Year to Year at {97.8%, 97.2%, 97.5%, 97.1%}. While this set fluctuates non-significantly in a down-up-down fashion, it also illustrates a recurring feature in these data – a slight drop away from Year 5 to Year 6. Other examples of a slight drop to Year 6 are the *number of different process types in ranking clauses* {5, 5, 5, 4} and in *embedded clauses* {3, 3, 3, 2}. A similar trend is seen in the overall proportional use of relational processes, which shows a general increase but a slight dip at Year 6, measured in total clauses – {all: 38%, 39%, 50%, 48%}; the *ranking clauses* show a more irregular but similar trend {*ranking only*: 42%, 39%, 53%, 47%}. This Year 6 dipping trend is repeated at the more delicate level of relational attributive processes, {*ranking only*: 36%, 33%, 48%, 34%}, {all: 33%, 33%, 44%, 32%}. On the other hand, the relational identifying processes show a steady increase with Year, and a sharp jump at Year 6: {*ranking only*: 7%, 6%, 6%, 13%}, {all: 6%, 6%, 6%, 15%}.

Use of *material processes* show a more irregular decrease in use, representing an all over decrease between Years 3 and 6 of 3%-5%: {*ranking*: 50%, 55%, 41%, 47%} {all: 54%, 55%, 43%, 49%}.

Mental processes also show a dip at Year 6, but the whole overall trend is for less use across the years: {ranking only: 5%, 3%, 4%, 2%} {all: 6%, 4%, 5%, 2%}. Use of *material processes* shows no systematic development across the Years {*ranking only*: 50%, 55%, 41%, 47%} {all: 54%, 55%, 43%, 48%}

Material and relational processes make up the large majority of clause-types. Looking at the figures for the use of all clauses, Years 3 and 4 favour material processes by similar proportions (Year 3 – material 54%, relational 38%; other: 8%; Year 4 – material 55%, relational 39%; other: 7%). Year 5, on the other hand, favours relational clauses (Year 5 – material 43%, relational 50%; other: 8%), and while Year 6 reverts to material (Year 6 – material 48%, relational 47%; other: 5%), it is by such a small difference that we can see a definite difference here between Years 3/4 and Years 5/6. Both Years 5 and Year 6 make full use of the range of meanings provided by relational processes using both attributive and identifying processes in their full suite of intensive, possessive and circumstantial meanings.

The use of embedded clauses themselves has already been examined, but here we can see the usage in terms of process type: material {11%, 4%, 7%, 4%}, mental {1%, 1%, 2%, 0%}, relational {2%, 3%, 4%, 3%}. There are no embedded subsidiary clauses. This shows no systematic use, but Year 6 is consistently low, and in fact overall in the reports, uses the lowest proportion of embedded clauses, {15%, 8%, 12%, 7%}.

7.4.4.1.2 Realisation – form of Processes in All Reports

We now turn to the complexity of the verbal groups that realise the processes, Tables Y3R-18, Y4R-18, Y5R-18 and Y6R-18 (Tables 6.X-18). In the reports, there is not much variation in the use of *verbal group simplexes* {*ranking only*: 80%, 82%, 81%, 83%} {*all*: 83%, 84%, 83%, 84%} and verbal group complexes {15, 24, 21, 21} {ranking only: 20%, 18%, 19%, 17%} {all: 17%, 17%, 18%, 16%} across the years. The most surprising thing is the possible dip in the use of verbal group complexes in Year 6.

Phrasal verbs in ranking clauses, {*ranking only*: 15%, 6%, 8%, 9%}, and in all clauses, {*all*: 12%, 6%, 7%, 9%}, exhibit an initial higher use in Year 3, a dip to Year 4, then a gentle increase to Year 6. Modality is used in the verb in the form of *modal adjuncts* {*ranking only*: 15%, 9%, 12%, 6%}, {*all*: 12%, 8%, 11%, 6%} (more

than expositions) and *modal finites* {ranking only: 12%, 11%, 9%, 2%}, {all: 10%, 10%, 8%, 2%}: a high usage in Year 3, then a vague tapering down to the fewest instances in Year 6.

Further detail regarding the verbal group complexes that realise processes is found in Tables Y3R-19, Y4R-19, Y5R-19 and Y6R-19 (Tables 6.X-19). The occurrence, as shown above, is (for all clauses) {15, 24, 21, 21}. Looking at the type of complexity we find that there are instances of parataxis in both Year 4 and Year 5; all examples are of paratactic extension; percentages across the years are {0%, 13%, 10%, 0%}. The use of *verbal group complexes with multiple relations* shows no decrease across the Years in real numbers {1, 1, 1, 2}, but when looked at fractionally, is erratic {7%, 4%, 5%, 10%}.

The rest of verbal group complexity is carried out hypotactically {93%, 83%, 85%, 91%}. Commonly across the Years, expansion {73%, 80%, 71%, 86%} (spike at Year 5) is used more than projection {20%, 4%, 5%, 10%} (spike at Year 3). Within expansion, elaboration is most used in all Years but Year 6 {40%, 42%, 48%, 33%}, followed by extension {33%, 33%, 19%, 52%}, then by enhancement {0%, 4%, 5%, 0%}, but each shows little sort of developmental pattern of use.

There is only one *embedded verbal group complex* in all of the Reports! It is joined through hypotactic:extension:elaboration in Year 5.

7.4.4.2 Participants in All Reports

7.4.4.2.1 Functional roles of Participants in All Reports

The functional roles of Participants are set out in Tables Y3R-21, Y4R-21, Y5R-21 and Y6R-21 (Tables 6.X-21). There are a possible 26 participant roles that writers choose from – Actor, Goal, Carrier, Attribute, and so on. The number of the *different participant roles* used by students across the years shows irregular usage: {14, 15, 10, 12}.

As would be expected, usage of Participants mirrors the use of Processes (the total number of processes across all clauses goes as {89, 145, 120, 137}) and increases across the Years except for a spike at Year 4, both in all clauses {128, 233, 185, 213} and in ranking clauses {115, 218, 171, 213}, with usage in embedded clauses showing no regularity {13, 15, 14, 17}.

As with the Processes, there is little appreciable pattern of development across the Years for individual Participant roles. However, some system can be found in the relational roles. Usage of **relational Participants** increases **absolutely** {66, 113, 114, 123} but not fractionally {52% 49%, 62% 59%}. Within relational roles, those carriers and attributes that surround **possession** decrease fractionally: carriers {10%, 8%, 9% 5%}, **attributes** {9%, 8%, 8%, 6%}. There is also a small but increasing use of carriers and attributes surrounding **circumstantial uses of relational processes**: **carriers**, {0%, 0.4%, 3.2%, 3.3%}, **attributes**, {0%, 0.4%, 3.8%. 3.8%}. Use of the identifying token and value also show a general increase (with a slight dip at Year 5): token, {4%, 4%, 3%, 9%} and value, {4%, 4%, 4%, 9%}. The high usage of identifying roles at Year 6 is spread across all possibilities of intensive, circumstantial and possessive meanings (apart from the obliquely involved ‘assigner’).

Use of Participant roles for material and relational clauses make up {90%, 95%, 94%, 96%} of the participant roles in the texts. The decreasing number of remaining Participants are found in mental {9, 6, 8, 2}, **verbal** {3, 2, 1, 0} and existential {1, 3, 2, 4} roles.

The Tables 4.X-22 attempt to compare usage of directly and obliquely involved Participant roles. Five of the six process types have associated with them both directly and indirectly involved Participants roles. One – existential – has only one, the directly associated existent. This means there are altogether 13 possibilities, and these are identified in Column B of the Tables. In comparing across the Years, 10 of the 13 possibilities are identical in all Years. The three items that are not identical across the Years are: *material/oblique*, {2, 4, 0, 3}; *verbal/direct*, {2, 1, 1, 0}; and *verbal/oblique* {1, 1, 0, 0}. The final counts of the role usage shows no pattern: {11, 10, 10, 9}, direct; {3, 5, 0, 3}, oblique, and {14, 15, 10, 12}, total. Thus, the overall

observation from this data set is that, in light of the smallness and similarity of these numbers, use of direct- versus indirectly-involved participants, or even onset of using indirectly associated participants, does not represent an effective means of gauging writing development in this context.

7.4.4.2.2 Realisation – form of Participants in All Reports

Participants may be realised by three different classes of group/phrase – the nominal group, the prepositional phrase, and rarely, the adverbial group. The nominal group can manifest in three ways: as a noun group where the Head of the group is a noun, as an adjectival group where the Head of the group is an adjective, and as a group where the Head is realised by a whole embedded clause, denoted here ‘clause-as-head’.

The forms taken by the Participants in Reports across the Years are presented in Tables Y3R-23, Y4R-23, Y5R-23 and Y6R-23; Table 6.X-23. *Nominal groups* are used evenly across the Years; taking all participants into account, in ranking and embedded clauses, realisation as nominal group, despite peaking at Year 4, and then dipping to Year 5, is quite even: {all: 96%, 99%, 91%, 98%}. The dip at Year 5 is not unexpected, given that, as we have seen, Year 5 reports favour relational attributive Processes; this dip is balanced by the relatively high number of participants realised by *prepositional phrases* in Year 5: {all: 3%, 1%, 9%, 1%}. There is scant use of participants realised by *adverbial groups* {all: 1%, 0%, 0%, 0%}. Looking at the different manifestations of the nominal groups, we see that noun groups are used {90%, 90%, 91%, 98%}, adjectival groups {5%, 7%, 10%, 8%}, and *clause-as-head* {2%, 3%, 1%, 2%}; all fairly even across the years.

Looking at the different manifestations of the nominal groups in Participants in ranking and embedded clauses shows no consistent pattern of usage, though the peak at Year 4 may now be seen to be confined to ranking noun groups: *noun groups* are used {*ranking*: 81%, 84%, 75%, 82%}, {*embedded*: 9%, 6%, 6%, 7%}.

The form of the participant is examined in greater detail in Tables 6.X-24, which, in the first instance, distinguishes between participants realised by one single group or

by a group complex. In the case of Reports, the usage of nominal group complexes, all of them noun group complexes, and some located in prepositional phrases, is {2%, 6%, 7%, 5%} across the years. Turning now to the finer detail available in the raw data on the usage of *nominal group complexes* as or in Participants, we see an irregular overall usage of {3, 13, 13, 11}. However, we can discern a bit of variation of placement of these group complexes: In Year 3, they are noun group complexes in ranking clauses. In Year 4, ditto, but with one occurrence in an embedded clause. In Year 5, we find 6 of the 13 are noun group complexes, 6 (5 ranking, one embedded) are noun group complexes in prepositional phrases, and one is an adjectival nominal group complex. Year 6 has 9 noun group complexes and 2 adjectival nominal group complexes. So, as noun group complexes, we see {3, 13, 6, 9}, in *prepositional phrases*, we see {0, 0, 6, 0} and as adjectival nominal group complexes, we see {0, 0, 1, 2}.

Turning now to Participants comprised of single groups, {124, 220, 172, 201} in both ranking and embedded clauses, use of one of the three examined forms shows a regular decrease: those consisting of **Head only** {59%, 51%, 45%, 43%}; those with **Head plus a pre-modifying element** show a regular increase {32%, 36%, 37%, 42%}, whereas those with any sort of post-modifying element show a general increase {5%, 7%, 10%, 10%}.

Participants realised by conventional **noun groups** of course comprise the majority in all these categories (total clauses shown), Head only: {52%, 43%, 36%, 36%}, pre-mod: {30%, 35%, 34%, 38%}, **post-mod**: {5%, 7%, 8%, 9%}. (It can be seen from this that the Year 4 spike can be isolated to the pre-modified noun group; what is more, we can further isolate it to ranking pre-modified noun groups: {28%, 33%, 31%, 36%} as *embedded pre-modified noun groups* {2%, 1%, 2%, 2%}, even out.) Adjectival nominal groups show a general pattern, with modification occurring in Years 5 and 6: Head only: {5%, 6%, 8%, 4%}, pre-mod: {0%, 0%, 0%, 2%}, post-mod: {0%, 0%, 2%, 0%}. Nominal groups with *clause-as-Head* show an even pattern, {2%, 2%, 1%, 2%}. The nominal groups in prepositional phrases develop as follows: *Head only* {2%, 0%, 1%, 0%}, pre-mod {2%, 1%, 4%, 1%}, post-mod {0%, 0%, 1%, 0%}.

In Reports, participants that are realised by noun groups do show a difference in form across the years. The form of the noun group changes; while use of Head-only noun groups seems to dip over the years (by 16%), use of noun groups with pre-modification show a 10% increase, and noun groups with post-modification also rises (by 5%). The use of Participants realised by group complexes increases by a lesser 3%. Overall, there is development apparent.

There is definite evidence of development across the Years in the way Participants are realised in Reports. The forms of the Participants in Reports become increasing complex as the Years progress. This is reflected in an increasing use of modification of the Head in noun groups (both stand-alone and in prepositional phrases). Fractionally speaking, use of **Head-only nominal groups** drops by 16% across the Years {59%, 51%, 45%, 43%}, while an increase is evident in both **pre-modification** {32%, 36%, 37%, 42%} and post-modification {5%, 7%, 10%, 10%}. Similarly, there is an increase in the use of nominal group complexes {2%, 6%, 7%, 5%}, the largest jump being between Years 3 and 4. There is a general though unconvincing increase in embedding across the Years {11%, 7%, 8%, 9%}, with an unexpectedly high Year 3 figure.

7.4.4.3 Circumstances (Reports Years 3-4-5-6)

7.4.4.3.1 Functional types of Circumstances in All Reports

Circumstance types can be examined by comparing Tables Y3R-26, Y4R-26, Y5R-26 and Y6R-26 (equivalent to Table 6.X-26 in each section). *Numbers of Circumstances* utilised in Reports shows a slight though general increase from Year to Year in the raw data: {all: 34, 56, 42, 54}. There is a general pattern discernible upwards in the Circumstances used in ranking clauses, {29, 50, 37, 51} {85%, 89%, 88%, 94%} and a corresponding general trend downwards in the Circumstances used in embedded clauses, {5, 6, 5, 3}, evident fractionally, {15%, 11%, 12%, 6%}. Calculations of the number of circumstances used per sentence, {0.67, 0.71, 0.55, 0.69}, and of *circumstances used per clause*, {0.45, 0.41, 0.39, 0.43}, show very little. The *number of different Circumstances types* used across the Years shows an

irregular pattern: {7, 6, 9 8}. Location:place is always most common {21, 31, 24, 21}, though fractionally, use tends to decrease across the Years, {62%, 55%, 57% 39%}. Second most commonly used across the Years is location:time, {5, 13, 8, 21}, generally on the increase, evident in the fractional use: {15%, 23%, 19%, 37%}. These two Circumstance types together account for a fairly stable, possibly declining, percentage of usage {77%, 79%, 76%, 76%}.

Other circumstance types are very much less in demand. Manner: means {6%, 7%, 7%, 7%} and Manner: quality {0%, 7%, 5%, 6%} show some slight increase. The causes {1, 1, 1, 1} fluctuate between the meanings {behalf, reason, purpose, reason}. Other types of Circumstances utilised in Reports show an *irregular* development from Year to Year.

7.4.4.3.2 Realisation of Circumstances in All Reports

Only varied development across the Years is evident in the forms taken by the Circumstances, given in overview in Tables 6.X-27. Circumstances realised by *prepositional phrases*, which records the largest readings in each Year: {31, 39, 31, 49} {91%, 70%, 74%, 91%}, shows the same use in Year 6 as in Year 3 and lower readings in Years 4 and 5; Similarly use of the *adverbial group* in circumstances does not vary much between Years 3 and 6, with Years 4 and 5 both showing much greater use {3, 15, 10, 4}, {9%, 27%, 24%, 7%}. Use of the *noun group* {0, 2, 1, 1} {0%, 4%, 2%, 2%} possibly falls away between Years 4 and 6, but is used only little and only in ranking clauses. When only the *ranking clauses* are considered for the other two forms, we see the usage of *prepositional phrases* does show an increase, {79%, 64%, 69%, 85%}; but adverbial groups, not much {6%, 21%, 17%, 7%}.

To look at further detail, we turn to Tables 6.X-28. The use of noun group complexes (including in the noun groups of prepositional phrases) happens {3, 3, 4, 2} times, {9%, 6%, 10%, 4%} all in ranking clauses. Concerning single noun groups, there is a pattern of preference discernible – of the three amplifying phases examined, the noun groups involving head and a pre-modifying element are the most common, {18, 21,

15, 31} {53%, 38%, 36%, 57%} compared to those of Head only {8, 14, 11, 13} {24%, 26%, 26%, 24%} and those with a post-modifying element {2, 3, 2, 4} {6%, 6%, 5%, 7%}. There is fairly even use across the Years.

Use of an adverbial group as Circumstance shows an irregular pattern {3, 14, 10, 3} {9%, 26%, 24%, 6%}, though it can be said that there is no evidence of modification of the adverbial head in any Year. There is one instance on an adverbial group complex, in Year 6.

7.4.4.4 The Nominal Group – a special case: in All Reports

Information about the nominal group is set out in Tables Y3R-30, Y4R-30, Y5R-30 and Y-6R-30 (Tables 6.X-30). We examine all nominal groups, whether they are functioning in/as Participants or in/as Circumstances, in terms of the three amplifying phases: nominal groups which consist of head only, those which incorporate some pre-modifying function, and those which have a post-modifying function. The overall trend is for nominal groups to be used more frequently by the higher Year groups; in all clauses, the use across the Years is {184, 329, 291, 358}, again with the peak at Year 4. Use in ranking clauses {16, 18, 15, 19}, and in embedded clauses {133, 239, 183, 226} also increases.

Considering all the nominal groups in the texts, the most used form varies from Year to Year. For Year 3, it is ‘Head only’, 51%; for Year 4, ‘Head-only’ and ‘with pre-modification’ are equal, 47%; in Years 5 and 6, ‘with pre-modification’ is most used, in increasing percentages, Year 5: 49% and Year 6: 53%. ‘With post-modification’ is used least, albeit generally increasingly, from Year 3 – Year 6, {8%, 7%, 10%, 12%}

When examining nominal groups of **Head only**, we see that usage across the Years for all clauses shows a regular decrease fractionally {51%, 47%, 42%, 36%}, a tendency carried through to the most common manifestation i.e. where **Head conflates with Thing**, {44%, 40%, 32%, 30%}. A less regular pattern is displayed when the Head=Epithet {3%, 6%, 8%, 3%}, and for *other Elliptical Heads* {4%, 2%, 2%, 3%}.

When examining **nominal groups with pre-modification** {41%, 47%, 49%, 52%}, the following generally increasing patterns are found: Head=Thing {40%, 42%, 46%, 45%}, and Head=Numerative (Focus), {1%, 4%, 2%, 6%}

When examining nominal groups with post-modification {8%, 7%, 10%, 12%}, we find the following pattern of development: **with qualifying phrase** {2%, 4%, 7%, 8%}, *with qualifying clause* {6%, 3%, 3%, 3%}, and *with multiple qualifiers* {0, 0, 0, 1}.

Use of pronouns can be examined in Tables Y3R-31, Y4R-31, Y5R-31 and Y6R-31 (Tables 6.X-31). There is slight evidence of development in the use of pronouns as Participants in Reports: use shows a tendency to increase over the Years: {37.5%, 42.7%, 53.8%, 41.7%}, with a downward turn in Year 6. (This trend extends to the use of personal pronouns: {30%, 36.6%, 45.2%, 30.6%}.) In examining other noun-types used as single word Participants, use of common nouns shows a general decrease: {57.5%, 55.7%, 43.0%, 39.8%}. Use of proper nouns shows a general increase, with a large jump at Year 6: {5.0%, 1.5%, 3.2%, 18.5%}.

Tables 6.X-32 are intended to examine pre-modification in the nominal group focusing on the most commonly used Head=Thing: for Reports, usage across the Years is {74, 138, 133, 160}. While there appears to be very little variation in pre-modification in these texts, there is a trend to use more configurations across the Years {11, 13, 15, 16}.

7.4.5 Summary of All Reports

There is a consistent strong trend of steady increase in the **lexical density** (number of lexical items per clause) and the **mean clause length** (number of words per clause) as Year succeeds to Year. These parameters are the most reliable in placing a particular text in a Year group. Such a regular increase is not repeated, but a more common up-down-up pattern emerges – a rise between Years 3 and 4, then a drop to Year 5, and a final rise to Year 6, accounted for by one anomalous Year 4 text. This pattern is displayed in many parameters such as numbers of sentences, clause

complexes, clauses, lexical items and total words. Clauses with *simplex embedding* and those with *complex embedding* show no regular pattern.

Generally speaking, the length of sentences increases with Year. The number of 2-clause sentences and the number of 3-clause sentences increase generally with Year, regularly if Year 4 is ignored. Again, if Year 4 is set aside, numbers of hypotactic-only relations increase with successive Year and paratactic-only relations decrease; in fact, the **percentage of paratactic-only** is the only entirely regular trend in this data set. Use of explicit logico-semantic relations show little regularity, beyond Year 3 using consistently the least. The most common meanings include extension:addition`additive, enhancement: temporal, *enhancement:cause*, but little systematic change.

Embedding in clauses occurs across the Years, but no regular pattern can be discerned, either in use or form or placement. All Years utilise *qualifier in a nominal group* more often than whole nominal group, but while there is consistent use, there is no consistent development from Year to Year.

Now we turn to Transitivity analysis and begin with Processes. Relational processes as a whole show a general increase to Year 5, then dip at Year 6, whether measured in *ranking clauses* or in total clauses, and this is reflected in relational attributive processes. On the other hand, the relational identifying processes show a steady increase with Year, and a sharp jump (a doubling percentage-wise) at Year 6 that is evident in *ranking* and all clauses. Year 5 and 6 use all available relational meaning. Use of *material processes* also shows a general slight decrease. Years 3 and 4 favour material processes by similar proportions. Year 5 favours relational clauses and while Year 6 reverts to material, it is by such a small difference that we can see a definite difference here between Years 3/4 and Years 5/6. The usage of *verbal group simplexes* and *verbal group complexes* varies little across the Years, but the *fractional use of complexes* again drops off slightly with Year 6. There is little use of paratactic expansion in verbal group complexes, but hypotactic expansion is used heavily, accounting for 73% of cases in Year 3 to 86% in Year 6.

All Participants and Participants in ranking clauses increase across three of the four Years, with Years 4 disrupting the order. There is little regularity except within **absolute** counts of relational **Participants**. Within relational roles, those **carriers and attributes** that surround **possession** decrease marginally fractionally, while **carriers and attributes** surrounding **circumstantial uses of relational processes** increase slightly. Identifying token and value also show a general increase. The high usage of identifying roles at Year 6 is spread across all possibilities of intensive, circumstantial and possessive meanings (apart from the obliquely involved ‘assigner’). Material and relational clauses make up the majority of the participant roles in the texts. The decreasing numbers of remaining Participants are found in small numbers in mental, **verbal** and existential roles. The place of *material* and *oblique* roles has been investigated, but does not provide a clear way of distinguishing the Year groups.

The forms of Participants likewise show either an irregular or erratic increase from Year to Year. The main form of Participant is the nominal group, but *Prepositional phrases* are also used. The forms of the Participants in Reports become increasingly complex, reflected in an increasing use of modification of the Head in noun groups. Fractionally speaking, use of **Head-only nominal groups** drops across the Years, while an increase is evident in both **pre-modification** and post-modification. Similarly, there is a small increase in the use of nominal group complexes, the largest jump being between Years 3 and 4.

We turn now to Circumstances. These often show a general increase from Year to Year. Broad examples include Circumstances in ranking clauses, and all clauses, but downwards in embedded clauses. Most common is location:place, showing fractional decrease of use, and location:time showing fractional increase, to become almost equal with location:place in Year 6. Other circumstance types less in demand include Manner: means (increase) and Manner: quality (increase).

As a special case, the nominal group has been considered across all Reports. In contrast to many parameters mentioned already, the nominal groups display quite a lot of regular development. Nominal groups of **Head only**, shows decreased use across the Years, reflected in use of groups where **Head conflates with Thing**,

Head=Epithet and *other Elliptical Heads* {4%, 2%, 2%, 3%}. **Nominal groups with pre-modification** generally increases, mirrored in use of groups where Head=Thing and Head=Numerative (Focus). Nominal groups with post-modification shows a general increase, especially those **with qualifying phrases**, whereas those *with qualifying clauses* decrease.

When looking at single word Participants, the use of pronouns as Participants shows a general increase over the Years, which is reflected in the use of personal pronouns. Use of common nouns shows a general decrease, whereas use of proper nouns shows a general increase.

In summary, **lexical density** and **mean clause length** provide a simple way to obtain an indication of the year level of the writer of a Report. The presence of an anomalous Year 4 text means other markers are less robust than they might be. These include numbers of sentences, clause complexes, clauses, lexical items and total words. Less strong markers involve clause taxis: clause complexes with hypotactic-only relations increase from Year to Year, while the **percentage of paratactic-only** decreases. Logico-semantic meanings of extension:addition`additive, enhancement:cause and enhancement: temporal dominate. Clause embedding may be a feature of this genre – all Years utilise *qualifier in a nominal group* more often than whole nominal group. With respect to Processes, use of relational processes as a whole shows a general increase with Year, while use of material processes shows a decrease, so that by Year 5 and 6, use of each is almost equal. Year 6 shows a significant increase in the use of relational identifying processes. Year 5 and 6 show use of all available relational meaning. The percentage use of *verbal group simplexes (or complexes)* changes little with Year, with Year 6 showing a marked increase of hypotactic expansion in the verbal group. With respect to **Participants**, usage of **relational Participants** may be a good indicator of writing level. Carriers and attributes that are involved in processes of **possession** are present in Year 3 and decrease fractionally; those surrounding **circumstantial uses** increase. When realising Participants, use of **Head-only nominal groups** drops across the Years proportionally, while an increase is evident in both **pre-modification** and post-modification. There is also an increase in the use of nominal group complexes. Circumstances are decreasingly of location:place, increasingly of location:time, with a smattering of manner:means and manner: quality, realised by prepositional phrases that involve a noun group with pre-modifier, all of which are featured increasingly across the Years. However, it proves to be in **examining the overall use of nominal groups** that the development of writing is most evident across the Years. Those of **Head only** decrease, those with **pre-modifier, including Focus**, and those with post-modifier, including **qualifying phrase** increase. Use of personal pronouns increases to Year 5.

7.5 Conclusion

This chapter has presented a summary of the findings, providing an overall description of the use of ideational features as they are deployed in the three separate genres, indicating changes in usage over the Years. The following chapter compares the genres taken together, that is, provides a genre-blind summative comparison of the features across the Years 3, 4, 5 and 6. Thus the lens will change from the individual genre to features that distinguish genre.

8 DISCUSSION AND CONCLUSION

8.1 Overall comparison of Years 3-4-5-6

In bringing together the results from the Narratives, the Expositions and the Reports, some fascinating findings emerge. A very clear outcome is that the development in children's writing is genre-specific. This outcome validates the approach of the thesis, which is to separate writing according to genre.

The genre-specificity of writing development is evident even in the crudest of measures starting with those that relate to sentence components. Counts of such basic features as the numbers of words, sentences, lexical items, and lexical items per sentence do not increase in a systematic way across all genres. Indeed, for Reports, none of these show regular development with Year. For Expositions, words and lexical items both increase with Year. The Narrative genre shows the most regular behaviour, with not only words and lexical items but also sentences and lexical items per sentence increasing from Year to Year. In this sense, the Narrative genre is the most robust for ascertaining Year level and suggests itself as the most directly appropriate diagnostic genre employing these features.

The picture is rather different when the focus is the clause, with the Expositions showing the strongest correlations from Year to Year. For example, the number of clauses with embedding, the fraction of clauses with embedding, and the number of clauses without embedding, all increase regularly Year to Year in Expositions. The same can be said only of clause simplexes within Narratives, and can be said of none of those items within Reports. (Although, as has been noted of the Reports, an anomalous Year 4 text has tended to skew results; omitting this text, a regular development is seen in clause complexes, clauses and mean clause length in Reports). Thus, even at the very simple level of tallying various aspects of clause utilisation, the three genres exhibit very different characteristics.

Examining clause embedding in detail reveals again that Expositions display the richest and most consistent features of the three genres. The fractional use of an **embedded clause functioning as the whole nominal group** always increases and

the fractional use of an **embedded clause as qualifier in a nominal group** always decreases across the Years for Expositions. In Reports all Years utilise *qualifier in a nominal group* more often than whole nominal group. Logico-semantic relationships and clause embedding provide a guide to writing development for both Narratives and Reports, but not the strong connection evident in Expositions.

The use of Processes of course provides an insight into writing development, but the exact nature of that development varies from genre to genre. In Narratives, a pattern is least clear. The favourite use is of material and *relational processes*. While use of material drops slightly, use of relational and verbal processes increases, so that verbal processes are the third most common with Years 4, 5 and 6. The **proportion of verbal group complexes** increases regularly with Year. Reports, also show a general decrease in material processes, but an irregular but steeper increase in relational processes with Year, so that Year 5 and 6 show almost equal use, both exploiting all relational process sub-types, and marking a definite difference to those used in Years 3 and 4. Year 6 shows a sharp increase in using relational identifying processes. Reports show little difference in the number of verbal group complexes across the Years. Like Reports, Expositions show a common favouring of firstly material, then relational, then mental Processes. Again, use of material processes generally decreases. Use of **relational:identifying processes**, or more delicately, **relational: identifying intensive processes**, increases from Year to Year. In contrast to Narratives, use of verbal group simplexes in all clauses increase with Year, and the use of verbal group complexes decreases.

The same general observation may be made of Participants that was made with Processes, namely, that the usage indicates writing development, but the details of the key changes differ from genre to genre. In Narratives, Participants associated with relational and verbal processes trend to increased use, while those associated with material processes show a decrease increase from Year to Year. In Expositions, as might be expected, it is the usage of **token and value** which increase most noticeably from Year to Year. Likewise, it is not a surprise that Reports feature **regular** patterning use of **relational Participants: carriers** and **attributes** involving **circumstantial** use steadily **increase**, while those involving **possession** steadily **decrease**. In Reports, the use of Participants realised by group complexes starts to

become noticeable: those by noun group complexes and by *adjectival group complexes* both increase. The use of both **pre-modification** and post-modification increases.

The use of Circumstances is variable. Within Narratives, the usage of Circumstances most clearly indicates writing development. In Narratives only, both the number of **circumstances used per sentence and** the number of sentences used per clause increase with Year. While all genres show an increase in the range of circumstances used, Narratives show the greatest increase and Reports the least. No circumstances in any of the genres show use in a steady (four out of four Years) pattern. In all genres, location place is most common and all genres, usage of location:place generally decreases, although not uniformly across the Years. The second most common circumstance is in Narratives is *location:time*, which remains at a fairly constant level, whereas in Expositions location:time decreases, and in Reports it increases. Circumstances of manner:means increases across the Years in Reports, but decreases in Narratives. Circumstances of cause are highest in Expositions, showing a fairly constant use across the Years.

Generally speaking, further examination of the usage of nominal groups and the way they are used to realise Participants and contribute to Circumstances would provide insight into writing development across the genres. Within Narratives, the use of pre-modification plus head give the clearest indication of writing development. Within Expositions and Reports the indicators associated with nominal groups are even stronger. Generally speaking, post-modification increases with Year; the use of qualifying phrases and focus always increase. Participants in embedded clauses are less amplified than those in ranking clauses; when embedded participants are realised by noun groups, it is without post-modification. This holds for Narratives and Reports, but not for Expositions, where there is evidence of post-modification in embedded participants in Years 5 and 6.

It is clear many generalisations extracted from the data will be subject to exceptions and need to be regarded cautiously. This rider aside, there appears to be a distinction evident between Narratives and Reports, on the one hand, and Expositions, on the other. This is highlighted by the large step in development between Year 3 and Year

4 in both the Narrative and Report genre and no similar discontinuity with respect to the genre of Exposition. It appears, then, of the three genres, students in late primary find Expositions the most challenging. It may be that a step development in Expositions occurs later, in high school; but further study within that older age group would be needed to confirm this speculation.

The study has confirmed that specific grammatical features – including hypotactic relations and the use of non-finite clauses – are consistent markers of mature writing. In this way, the study gives weight to recent descriptions of writing development such as that found in the Australian Curriculum (2014).

In conclusion, this research has revealed a number of pointers to writing development. Sentence constituents, Processes, Participants, Circumstances and Nominal Groups all have a story to tell, and the tale is subtly different across the three genres considered. Taken together, they indicate a richness of development in these four important Years, that inattention to any aspect, or the distinctives of each genre, might obscure.

8.2 Significance of study

The findings of this study are significant, especially so when seen in light of the literature review (Chapter 2) which identified important gaps in the research literature, a dearth of research into not only literacy in the upper primary/pre-middle school years, but more specifically into writing. Those few studies which have done so have generally been from a more traditional structuralist approach to grammar, where the focus has been tied to the form of the grammar, or have tended to concentrate on a single discrete stage or a particular child's writing. A significant number of previous studies have been unable to access such detailed findings as outlined above as they lacked access to a theory of language that brought together function and form in a synthetic whole. This study is much broader and helps identify developmental features across a range of years and genres. It extends our understanding of children's writing development in identifying developmental patterns across Year groupings, specifically noting genre differences. By

concentrating on examples of writing “well done”, the study contributes to identifying the specifics of what constitutes good writing at particular stages in terms of the linguistic features tied to the context of purpose. This in turn allows teachers and educators to identify developmental pathways to facilitate student progress, in class groups and down to the individual.

8.3 Limitations of research

A major limitation involves the obvious resources – time and space. In a way this thesis presents a task one-third done; analysis of the other metafunctions of the interpersonal and the textual are not presented. And in fact, it presents a task less than one-third done. A fuller picture would involve discussion of specific examples of particular forms of realisations in the grammar, which could not be done with the volume of data analysed.

On the other hand, an important limitation for the generalisability of the study reported here is the necessarily small sample. A relatively small number of texts was selected for an extensive detailed analysis that would have been impossible to achieve with a larger corpus. However, a small sample allowed for the possibility of skewed results (as in the Year 6 Narratives and the Year 4 Reports) and limits the generalisability of the findings. Analysis of a larger sample is not, however, expected to reveal any significant finding not identified already in the present study. Rather, a larger sample would be expected to confirm the findings, and smooth out some of the irregularities that have been noted here as arising from a small sample set. In other words, a larger sample would be expected to confirm and make more robust some of the more tentative conclusions made in the present study.

Another associated, though lesser, limitation was the identification of the student writers as being successful. The decision was made to rate the samples on the word of the teachers at the coalface, and on the general conformity of each text to the genre descriptions provided in the literature. On the one hand, this presents an authentic view of what students are producing in schools and what teachers are ‘happy with’; on the other hand, the very best examples of each genre may not have

been examined, as teachers may have had differing criteria in mind in rating the texts. This concern would be lessened with a larger corpus.

8.4 Areas for further research

This thesis has presented a considerable volume of data drawn from the texts under study. There is a good deal more data presented than has been able to be commented on; in many ways, a rather broad picture of the ideational metafunction at work has been offered. It could be argued that there are some fundamental relationships that deserve further drawing out; for example, little has been said about the relationship between meaning and field, and the way fields of experience are constructed within the different genres studied. These are matters beyond the scope and space of this study. Similarly, detail at the level of semantics has not been presented. The ‘semantic core’ has not been sufficiently drilled. For example, relatively little has been examined in the nominal group. The ‘Thing’ has been distinguished according to class as common, proper or pro- noun (see Tables X.X-31 for figures), but further classifications of the common noun – countability, animacy and generality – are not presented, nor are the implications of their potential for metaphorical expression discussed. Another obvious area for further exploration is a fuller interpretation of the current findings with respect to how different linguistic resources contribute to the development of children’s writing; for example, how post-modification and modality in the verbal group respectively enhance description and argumentation. Another example is how embedding – or other resources like projection – is linked to the development of metaphorical expression – when is it evident and are there signs of it giving way to more mature expressions? As yet, the finer nuances have not been drawn out sufficiently to provide a full description of the relationships between form and function and meaning. This is yet to come.

Other areas for further research open up. Concerning the present corpus, the other metafunctions might be investigated, contributing to a full view and description of the present texts. As already mentioned, a larger corpus might be analysed. Given that more than 2000 texts have been collected; the immediate expansion would not be collecting more, but analysing more of the already collected texts. As has also

been foreshadowed in Chapter 3, there are additional dimensions of the collected texts that have not been the focus here, but of interest to pursue: the parameters of gender; of socio-economic background; of non-English speaking background. While broadly similar results might be expected to the findings of the present study, subtle shades of difference also are likely to be on display. The collected texts could also be examined in terms of teacher rating: in what ways do the highly-rated texts analysed in this study differ from the less highly-rated texts collected from the same schools and pertaining to the same tasks and Year groups?

At a broader level the same approach could be extended to additional Years above (into secondary or tertiary education) or below (into lower primary or kindergarten, or pre-school) the Years investigated here.

8.5 Implications

When the nature of linguistic development in writing is made visible, many implications may follow.

The study may have implications for pedagogy; for example, such detailed information can aid teachers in selection of model texts at an appropriate level. Another example is that it can inform teachers about what to model in terms of extending students' literacy. It has implications for assessment. In the classroom and for small scale assessment such knowledge can inform diagnostic processes, where accurate teacher judgements of development can be used to tailor learning experiences effectively. The study also has important implications for large scale assessment situations, where, for ease of marking, the rubrics tend to be undifferentiated with respect to genre. However, the study shows that indicators of development will vary significantly from genre to genre, and these differences cannot be captured adequately with "one size fits all" rubrics. For example, lexical density and mean clause length show regular development in Reports, but not in Narratives. A sophisticated approach to evaluating student therefore involves not only the genre that has been set but also the parameters that are being measured. This study would caution against over-reliance in evaluating language development in

children on any one parameter, including, for example, the popular measure of mean length of utterance.

The study may have implications for teacher education and the content of those courses. In particular, the findings highlight the importance of teachers' explicit knowledge of language and familiarity with a metalanguage for aiding students develop features of their writing. This could be addressed in teacher education courses, where teachers' knowledge of grammar and metalanguage can be explicitly addressed. The implications then flow on to classroom practice. Knowledge of the final outcome and, as explicated in the present study, the process to obtain that outcome, has the potential to inform the teaching and learning in classrooms. Teachers will know how best to explicitly help their students improve their writing, and extend students' literacy resources beyond the surface features.

All of the above concerns of course are covered by policy. The thesis contributes to a bank of empirical data on which sound policy can be based. Many policy documents are developed with little knowledge of developmental sequence, which in turn means that curriculum development is poorly informed. This is not to imply that current policy documents are wrong, but that with empirical support, for example, developmental-specific teaching sequences can be built into curricula and syllabi. Assessment policy and policy covering professional learning and pre-service teacher preparation as described above could also benefit from the support of such empirical data as this study contributes.

All of these implications are tending towards making education fair and equitable. The more we know about the way meaning is made in writing, the more empowered we are to help children develop appropriate linguistic tools for making the requisite meanings to operate well and successfully in their context. The study was motivated by a desire to contribute to making explicit for all students those aspects of writing that become increasingly important as schooling continues; those abstract, dense and technical aspects of academic writing that are increasingly expected and rewarded in secondary schooling.

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10 APPENDICES

10. 1 Appendix A. Relationships between clauses

Guide for identifying relationships between clauses

(i) Basic types of clause complex, from Halliday and Matthiessen 2004, p380.

Type	Kind	Paratactic 12	Hypotactic $\alpha\beta$
EXPANSION	ELABORATING	1 John didn't wait; =2 he ran away. (' <i>apposition</i> ')	α John ran away, = β which surprised everyone. (' <i>non-defining relative clause</i> ')
	EXTENDING	1 John ran away, +2 and Fred stayed behind. (' <i>co-ordination</i> ')	α John ran away, + β whereas Fred stayed behind.
	ENHANCING	1 John was scared, X2 so he ran away.	α John ran away, X β because he was scared. (' <i>adverbial clause</i> ')
PROJECTION	LOCUTION	1 John said: "2 'I'm running away'" (' <i>direct speech</i> ')	α John said " β he was running away." (' <i>indirect speech</i> ')
	IDEA	1 John thought to himself: '2 'I'll run away'.	α John thought ' β he would run away.

(ii) Detail of expansion in the clause complex, compiled from Halliday and Matthiessen 2004, pages where indicated.

EXPANSION IN THE CLAUSE COMPLEX					
Kind	Category	Meaning	Realisation (principal markers)		
ELABORATING p. 397		exposition exemplification clarification	Paratactic 1=2	Hypotactic $\alpha=\beta$ non defining relative clause Finite wh-element: which, when, where	
			i.e., in other words e.g., for example viz, to be precise		
			—		
		description	—	Non-finite	
EXTENDING p. 405			1+2	$\alpha+\beta$	
(i) addition	'and', additive: positive	X and Y	(both . . .) and; not only . . . but also	while, whereas	besides, apart from, as well as
	'nor', additive: negative	not X and not Y	(neither . . .) nor	—	—
	'but', adversative	X and conversely Y		while, whereas	without
(ii) variation	'instead', replative	not X but Y	but not; not . . . but	—	instead of, rather than
	'except', subtractive	X but not all X	only, but, except	except that	except for, other than
(iii) alternation	'or'	X or Y	(either . . .) or (else)	if . . . not (. . . then)	—

EXPANSION IN THE CLAUSE COMPLEX							
Kind	Category	Meaning	Realisation (principal markers)				
ENHANCING p. 411			Paratactic	Hypotactic			
			1X2	αXβ			
				adverbial clauses	non-finite: conjunction	non-finite: preposition	
	(i) temporal	same time	A meanwhile B	(and) meanwhile; (when)	[extent] as, while	while	in (the course/ process of)
					[point] when, as soon as, the moment	when	on
					[spread] whenever, every time	—	—
		different time: later	A subsequently B	(and) then; and + afterwards	after, since	since	after
		different time: earlier	A previously B	and/ but + before that/ first	before, until/ till	until	before
	(ii) spatial	same place	C there D	and there	[extent] as far as	—	—
					[point] where	—	—
					[spread] wherever, everywhere	—	—
	(iii) manner	means	N is via/by means of M	and + in that way; (and) thus	—	—	by (means of)
		comparison	N is like M	and + similarly; (and) so, thus	as, as if, like, the way	like	
	(iv) causal—conditional	cause: reason	because P so result Q	[cause^effect] (and) so; and + therefore			
				[effect^cause] for; (because)	because, as, since, in case, seeing that, considering		with, through, by at, as a result, because of, in case of
		cause: purpose	because intention Q so action P	—	in order that, so that	—	(in order/so as) to; for (the sake of), with the aim of, for fear of
		cause: result			so that	—	to
condition: positive		if P then Q	(and) then; and + in that case	if, provided that, as long as	if	in the event of	
condition: negative		if not P then Q	or else; (or) otherwise	unless	unless	but for, without	
condition: concessive		if P then contrary to expectation Q	[concession^consequence] but; (and) yet, still; but + nevertheless	even if, even though, although	even if, even though, although	despite, in spite of, without	
			[consequence^concession] (though)				

Appendix B

10.2 Appendix B. Verbal group complexity

Guide for analysing verbal group complexity – collated from Halliday and Matthiessen 2004, sections and pages where indicated.

	PARATAXIS	HYPOTAXIS											
Expansion: Elaborating		1. GENERAL						2. PASSIVE		3. CAUSATIVE			
		PHASE 8.5.1 p499						PHASE 8.6.1 p505		PHASE 8.7.1 p511			
		Label	Meaning	system/phase	term	Aspect of β-verb	Examples	Label	Examples	Label	Category	Aspect of β-verb	Examples
	PX: elab apposition	gen elab be=> tense		TIME				passive elab	Trans same in active or passive α=β	caus elab time	TIME	imperf.	keep ... doing; start ... doing; stop ... doing;
	1=2		[be	=> tense	present in	imperf.	is doing						
	Apposition	gen elab be=> modality	[be	TIME		perf.	is to do						
	got killed, got run over			=> tense	future in ('=> modality)	required to)							
		gen elab keep	keep	TIME	durative	imperf.	keeps (on)/ goes on doing						
		gen elab start	start	TIME	inceptive	imperf./ perf.	starts/ begins doing/ to do; gets doing; stops doing, ceases doing/to do tend - do typically p 504						
		gen elab start+keep	start+keep	TIME	inceptive-durative	imperf.	takes to doing						
		gen elab be=> voice	[be	=> voice	passive	neutral	is done			caus elab reality	REALITY	perf.	consider ... to do (mental) prove ... to do (verbal)
		gen elab seem	seem	REALITY	apparent	perf.	seems/ appears to do						
		gen elab prove	prove	REALITY	realised	perf.	proves/turns out to do						

Verbal group complexing – Expansion (i) Elaborating

Appendix B

	PARATAXIS	HYPOTAXIS											
Expansion: Extending		1. GENERAL						2. PASSIVE		3. CAUSATIVE			
		CONATION 8.5.2 p501						CONATION 8.6.2 p506		CONATION 8.7.2 p512			
		Label	Meaning	system	term	Aspect of β-verb	Examples	Label	Examples	Label	Category	Aspect of β-verb	Examples
	PX: ext and or but	gen ext have=> tense	([have)	=> tense	past	in neutral	has done]	passive ext	people tried to accept her				
	1+2	gen ext have=> modality	([have)	=> modality	required to	perf.	has to do] (have+'to do', a modal form (see bottom p 502))		she tried to be accepted by people				includes causatives with passives? see p 512
	[and, or, nor, but, but not]	gen ext try	(try)	CONATION	conative	perf.	try to/ and do, attempt to do, strive to do, contrive to do; [went (tried e.g. went to get away (5))] avoid doing/ (can't) help doing			caus ext conative	CONATION CONATIVE	perf.	encourage ... to do
	neither like nor dislike									caus ext reussive	CONATION REUSSIVE	perf.	help...(to) do, enable ... to do
		gen ext succeed	(succeed)	CONATION	reussive	imperf./ perf.	succeed in doing; manage/ gets to do; fail (in) doing/ to do						
		gen ext can=> modality	([can)	=> modality	be able to	perf.	can do]						
		gen ext can	(can)	POTENTIALITY	be able to	perf.	be (un)able/ (not) knowhow to do			caus ext potential	POTENTIALITY POTENTIAL	perf.	enable ... to do
										caus ext achieval	POTENTIALITY ACHIEVAL	perf.	teach ... to do
		gen ext learn	(learn)	POTENTIALITY	become able to do (achieval? p 511)	perf. /imperf.	learn to do; practise doing						

Verbal group complexing – Expansion (ii) Extending

Appendix B

	PARATAXIS	HYPOTAXIS									
Expansion: Enhancing CIRCUMSTANTIAL		1. GENERAL				2. PASSIVE		3. CAUSATIVE			
		MODULATION 8.5.3 p503				MODULATION 8.6.3 p508		MODULATION 8.7.3 p513			
		Label	Category	Aspect of β-verb	Examples	Label	Examples	Label	Category	Aspect of β-verb	Examples
	PX: enhanc circ	gen enhanc time	Time	imperf.	begin by, end up (by) doing 'do first, last'	passive enhance	Many 'enhancing' verbal group processes are inappropriate in passive Two that are impersonal and indifferent to voice: happen tend happened to have been built would tend to be left	only one or two modulations have causative equivalents: e.g. (remember to do ...)			
	1x2			perf.	tend to do 'do typically'						
	tried but failed = although he tried, he failed	gen enhanc manner	Manner: quality	imperf.	insist on doing 'do perversely'						
				perf.	hasten to do 'do quickly'						
				perf./ imperf.	venture to do/risk doing 'do tentatively'						
				perf.	hesitate to do 'do reluctantly'						
				perf.	regret to do 'do sadly'						
		gen enhanc reason	Cause: reason	perf.	happen to do 'do by chance'			caus mod reason	CAUSE REASON	perf.	remind ... to do
				perf.	remember/forget to do 'do/not do according to intention'			these exist only as causatives, where the meaning is simply that of agency			
		gen enhanc purpose	Cause: purpose	imperf.	try doing 'do as means to end'			caus mod agency hi	AGENCY HIGH	perf.	make ... do; force ... to do; require ... to do
		gen enhanc concession		perf.	come to do, get to do 'do contrary to expectation'			caus mod agency med	AGENCY MEDIAN	perf.	have ... do; get ... to do; oblige ... to do
		gen enhanc accomp	Accompaniment	perf./imperf.	help (to) do /(in, with) doing 'do together with someone'			caus mod agency low	AGENCY LOW	perf.	let do; allow ... to do; permit ... to do

Verbal group complexing – Expansion (iii) Enhancing

Appendix B

	PARATAXIS	HYPOTAXIS		
Projection		Label	Aspect of β -verb	Examples
	-	proj Posal:idea will=>desid_tense	perf.	will do
		proj Posal:idea going to=>intent_tense	perf.	is going to do
		proj Posal:idea want	perf. imperf.	want, wish,desire etc; would like / prefer to do etc like/ enjoy doing
		proj Posal:idea intend	perf. imperf.	mean/ plan/ intend to do; decide intend/ consider/ anticipate doing
		proj Posal:idea expect	perf.	hope/expect/aspire to do
		proj Posal:idea need	perf.	need/require to do
		proj Posal:idea fear	perf.	fear/be afraid/be scared to do
		projPosal:loc ask	perf.	ask/demand/request to do
		projPosal:loc consent	perf.	agree/consent to do; refuse/decline to do
		projPosal:loc promise	perf.	promise/ vow/ undertake to do; threaten to do
		proj Prop:idea pretend	perf.	pretend to do
		proj Prop:loc claim	perf.	claim/profess to do; be said/rumoured to do

Verbal group complexing - Projection