

# The Target of the Question: A Taxonomy of Textual Features for Cambridge University ‘O’ Levels English

Shanti Isabelle Benjamin<sup>†</sup>

*University of Western Australia*

This study investigates the typical textual features that are most frequently targeted in short-answer reading comprehension questions of the Cambridge University ‘O’ Level English Paper 2. Test writers’ awareness of how textual features impact on understanding of meanings in text decisions will determine to great extent their decisions on kinds of textual features to target when designing questions. Novice test writers such as teachers preparing students for international examinations like the Cambridge University Ordinary Level Papers often lack the experience and knowledge (linguistic analysis) to develop the expertise in the “art of test development” (Pierce, 1994) particularly in terms of targeting appropriate textual features. This study therefore attempts to fill this gap in teacher knowledge by developing a taxonomy of typical textual features that can be used as a supporting framework and resource for test design work. This paper reports on an analysis of 15 years of test papers to develop a taxonomy of textual features targets to support the selection of appropriate texts and the design of short answer reading comprehension questions that better approximate the linguistic complexity of the Cambridge papers.

## Introduction

The ability to read, particularly in English is a necessity in modern knowledge-driven economies. English is the preferred language of science, technology, diplomacy and international business

---

<sup>†</sup> Address for correspondence: Shanti Isabelle Benjamin, Ed.D., Principal Consultant, ELCOT Consultants, 11 North Bridge Road, #21-01 Peninsula Plaza, Singapore 179098. Email: [elcot\\_consultants@yahoo.com](mailto:elcot_consultants@yahoo.com).

(Graddol, 1997) and, as such, has become the predominant language of international discourse. With the knowledge explosion in both print and electronic media, access to critical knowledge bases is dependent on the ability to read and interpret the English language.

With the high premium placed on reading ability, English Language (EL) education across the world, especially in Asia, has placed great emphasis on reading comprehension skills. Entry to most universities and other institutions of higher learning in the United Kingdom, United States, Australia and New Zealand requires applicants to demonstrate EL competency, and for foreign nationals usually an above average grade in internationally recognised EL examinations. These requirements have turned assessment of EL skills into a high-stakes milestone which determines a learner's opportunities for further education and future career prospects. Consequently, there is a great demand for language training programs that prepare students for these entry tests. Teachers in local institutions, particularly in Asia, need in-depth understanding of the range of skills and the ways they are evaluated in these gate-keeping tests in order to train their students to perform well and enhance their chances of entry into recognised universities and colleges.

In addition to individual need to demonstrate EL competency for entry into institutions of higher learning, there are growing national and political imperatives driving the demand for EL competency. Governments in Asia, especially in Singapore, want their education systems to equip their learners with the linguistic skills, particularly EL skills, necessary for them to negotiate their way through the ever-changing landscape of global communication. Singapore's most recent English Language syllabus, specifies that students require proficiency in EL to "access, process and keep abreast of information and to engage with the wider and more diverse communities outside Singapore" (Ministry of Education (MOE), 2010, p. 7). Accordingly, the variety of English aspired to is described as 'internationally acceptable English (Standard English)' (MOE, 2010, p. 7).

Singapore's MOE reaffirmed this aspiration to 'international acceptability' of its secondary school level graduates by requiring to them to pass the highly demanding Cambridge University 'O' Level English Examinations. The high reliability and validity of this rigorous assessment framework ensures that the evaluation of candidate's command of the English language is recognised internationally by employers and institutions of higher learning. A Straits Times article (Rice-Oxley, 13 July, 2007, p.13) quoted Chris McGovern, a well-known educationist, who described the Cambridge University examinations taken by Singaporean students as the "gold standard" compared with the "watered-down 'O' levels" of the General Certificate of Secondary Education (GCSE) taken by 16 year olds in Britain. The article recounted concern among British academics that the "dumbing down" of qualifying examinations resulted in undergraduates requiring "refresher courses before they can properly embark on undergraduate studies". These arguments over the quality of education and examinations highlight the significance of the evaluation parameters of these qualifying examinations and their impact upon the kind of training candidates receive in preparing for them.

The next section discusses the Cambridge examinations and their implications for English language education in Singapore.

### **Cambridge University Examinations**

The Cambridge University examinations run by the University of Cambridge Local Examinations Syndicate (UCLES) have been the exit examinations for graduating students in Singapore secondary schools and junior colleges for more than thirty years. Performance in these examinations determines eligibility for entry into further education in junior colleges, polytechnics and tertiary institutions in Singapore and elsewhere. A passing grade in the EL Paper is compulsory to pass secondary school examinations as a whole. That requirement has caused a significant backwash effect on content, training methods and testing procedures of the EL

curriculum with many teachers teaching to the test rather than the stipulated syllabus.

A general description of the format of the examination outlining what candidates will be required to do (for example, answer short-answer comprehension questions, write a summary, or interpret a visual text) is published by the Cambridge Examiners and MOE in Singapore, but specific details about the paradigms of testing instruments (for example, linguistic targets such as range of textual features) are withheld to protect their validity and reliability. The lack of this information raises significant problems for teachers and students as they prepare for the examinations. The next section discusses teacher knowledge and its implications for teaching and testing EL competence in Singapore schools.

### **Teacher Knowledge**

Language teachers worldwide are required, as part of their work duties, to design and develop test instruments. Student performance in those tests provides teachers with information about levels of competency of their students and, in turn, about the effectiveness of the training they have received. Assessment instruments such as reading comprehension tests also are used to diagnose weaknesses in reading techniques and, subsequently, to signal the types of content (skills and knowledge) which might be included in remedial classes. Tests serve either diagnostic or achievement purposes, or both. Capacity to measure progress or diagnose weaknesses is critical in institutions that train students for international examinations.

Gate-keeping examinations like the Cambridge University English Language papers have critical implications for the future academic and career opportunities of students. Consequently, a whole industry comprised of stake-holders with vested interests, such as competitive training institutions and publishers who churn out assessment and guide books which sometimes are only vaguely related to what the examinations actually test, has developed to

### *The Target of the Question*

serve the needs of students, and to allay the anxieties of their parents.

The pressure to produce results usually lands on the hapless teachers. They have to be knowledgeable about the requirements of the examinations, or at least, able to understand them well enough to prepare candidates for examination. Apart from contending with decisions about content and methodology, teachers need to design exemplar practice papers and worksheets to provide students with ample practice and appropriate and effective exposure to the types of texts and questions they will encounter.

Ideally, teachers should need only to focus on providing a broad based, generalised language skills program to ensure sufficient technical preparation for examinations. In the academic pressure-cooker of Singapore meritocracy, however, good enough is never enough. To provide students with a competitive edge, teachers need to know and understand the demands of the assessment tool. Specific information is not readily accessible because the examining bodies, in protecting security of test instruments, are not open to detailing test objectives or their translation into test items.

While teachers do receive general training on setting language tests, it cannot match the expertise of professional test writers, usually highly qualified academics, or test-construction agencies such as Cambridge Assessment, a department of the University of Cambridge. Teachers usually rely on understandings gleaned from general surveys of previous Papers to design test papers that approximate the linguistic complexity of the Cambridge 'O' Level English examinations.

Because individual teachers have inadequate understanding of test design methodology, it is common practice for many schools in Singapore to have professional sharing sessions. EL teachers participating in test-designing workshops conducted by this researcher frequently indicated that setting 'mock' papers can be

daunting for both beginners and experienced teachers. Teachers admit that they lack knowledge about text selection and question design; they have difficulty selecting texts that match the linguistic complexity of the texts found in the UCLES papers; and sometimes cannot identify the specific linguistic skills that various question types evaluate. Consequently, their ability to design tests for the range and complexity of questions and linguistic skills that can be tested is constrained. Limited professional development for teachers (apart from a 60-hour grammar course) before Singapore's 2001 EL syllabus was implemented resulted in many secondary school teachers not seeing themselves as "agents in this process of syllabus change, nor having the necessary theoretical and practical expertise to deliver the goods of "higher literacy skills" to their students" (Kramer- Dahl, 2007, p. 49). In classroom observations of secondary school EL teachers, Kramer-Dahl noted that the syllabus assumed "a far more highly trained cohort of teachers in linguistics and language pedagogy" than was found in the teachers her research team studied (Kramer- Dahl, 2007, p. 64).

Designing good reading comprehension questions requires the test writer to deconstruct texts and scrutinise how the writer has chosen to say what was intended and to look for interesting patterns. Deconstructing texts requires a working knowledge of the field of discourse analysis pertaining to how writers say what they mean. Test writers need to identify significant textual details such as critical vocabulary or conjunctive expressions that must be noted and interpreted correctly in order to fully appreciate what the text writer is saying. These significant textual details are then targeted as objects of interpretation in design of accompanying reading comprehension questions.

The targeting preferences in reading comprehension tests often are based on the writer's experience and intuition about which textual features are significant to the understanding of the particular text (Pierce, 1994). Pierce (1994) described the process of identifying textual features as the "art of test development" where she used her "judgment and imagination to assess the interesting and

(uninteresting) characteristics of the passage” (Pierce 1994, p. 44). In teacher training workshops, this researcher found that few teachers were skilled in discourse analysis and tended to rely on intuitive awareness of processes involved in the interpretation of texts and a cursory understanding of different types of questions gleaned from superficial analysis of previous examination Papers. Research literature provides detailed descriptions of question and skills taxonomies, but does not always identify specific textual features that lend themselves to testing of particular skills or sub-skills. While the skills taxonomy proposed by Munby (1978) and the “careful Reading Operations” taxonomy proposed by Hughes (2003) identify textual features such as Referring Expressions and Conjunctions, the remainder of their taxonomies do not make specific links between reading skills and the particular textual features that allow for the evaluation of those skills.

Many teachers, at least in Singapore, are handicapped by lack of technical knowledge about discourse analysis which can offer understandings about how texts convey meaning through syntax, cohesion and lexical choice. The highly technical nature of discourse analysis tools and methods seems to deter teachers who want to employ its methods. Evidence of this weak background in text structure and question design is reflected in the significant number of poorly-designed ‘mock’ or preliminary papers prepared by various institutions each year. Textual features selected as objects of interpretation in reading comprehension questions often are uninspired, insignificant to overall meaning, or unfairly focused on low-frequency content words (Benjamin, 2003). How do these gaps in teacher knowledge impact upon the teacher’s capacity to provide appropriate training in linguistic skills and knowledge required to ace these high-stakes, gate-keeping examinations? Hughes (2003, p. 55) points out, “however good the potential backwash effect of a test may be, the effect will not be fully realised if students and those responsible for teaching do not know and understand what the test demands of them”. Teacher knowledge of test parameters therefore plays a critical role in determining a teacher’s capacity to provide students with the best possible preparation for the examinations.

Teachers with limited knowledge about the vast and complex science of linguistic analysis and testing methodology can make only cursory, superficial analysis of the test papers. Design of practice papers and testing instruments that approximate the complexity of the UCLES examinations requires information that can be provided only through a comprehensive linguistic analysis of a sizeable data set. This study (Benjamin, 2010) sets out to address this gap in teacher knowledge by firstly, identifying the range of typical textual features targeted in reading comprehension questions of the UCLES Paper; secondly, by analysing the type, structure and evaluation objectives of the short-answer reading comprehension questions; and finally, by proposing frameworks for design of reading comprehension tests that better approximate the complexity of the Cambridge examinations. Because of constraints of length, this paper presents only the results of the first part of the analysis: the range of typical textual features.

Fifteen of the UCLES Ordinary Level English Paper 2 examinations were analysed to determine the range of textual features targeted for interpretation in the short answer reading comprehension questions. The next section presents a description of the procedures used to carry out the analysis followed by a presentation of a sample analysis.

### **Procedures of Analysis and Collation**

Each reading comprehension question and the corresponding section of text relevant to each question was analysed to capture and describe the text processing required to arrive at the answer. The text processing was described in terms of the textual features that required interpretation based on the linguistic skills involved in the search for the answer, presented in the order in which they would be needed to be interpreted. A summary of the linguistic skills and critical textual features requiring interpretation were extracted from this description. Please see Figure 1 for a sample analysis.



The writer had been traveling and working in Brazil for three months. A pilot, who had recently dropped a party of climbers near Mount Roraima, offered to fly the writer near Mt Roirama to join a party of climbers.

*This was a chance not to be missed, not only to climb a legendary mountain, but also to have a quiet period of intense physical activity.* *This (I=?)* would give me an opportunity to unwind after my hectic labours of the last three months.

**1(a) Apart from the quietness, what did the writer expect would help him ‘to unwind’ on his expedition?**

Question Analysis: Content Question

Text-Processing:

- Trace ‘to unwind’ in question to text.
- Recover *This* (I=?) as ‘a quiet period of intense physical activity’
- Closer reading of this recovered phrase shows that the two qualities of the expedition would be the *quietness* and the *intense physical activity* presented in a clause complex. Since *quietness* is excluded by the question, the answer therefore is - *intense physical activity*.

Answer: The intense physical activity would help him unwind.

Textual Features Targeted:

- Referring expression : *This*
- Nominal Group : *a quiet period of intense physical activity*
- Prepositional Phrase: *of intense physical activity*
- Epithet: *intense*
- Conjunctive expression signalling additive relations: *not only...but also*
- Clause complex: underlined in text

*Figure 1. Sample Analysis from 1998 UCLES Paper*

This basic procedure was carried out for each question and its corresponding text across the fifteen Papers. Critical textual features were identified and extracted. This list of extracted textual features was then analysed using metalanguage drawn from the discourse analysis field i.e. Systemic Functional Grammar (Halliday, 1994; Halliday & Hasan, 1976; Halliday & Matthiessen, 2004; McCarthy & Carter, 1994; Butt, Fahey, Spinks & Yallop, 1995) to build a profile of each of the targeted textual features leading eventually to the proposed taxonomy of typical textual features. Frequency counts were done to see which textual features were typical. The next section presents the findings of the textual analysis: the top 20 most frequently targeted categories of textual features which may refer to either a single textual feature or a combined group of textual features sharing similar linguistic functions.

### **Proposed Taxonomy of Typical Textual Feature Targets**

The end product of this study: A proposed taxonomy of textual features typically targeted in short-answer reading comprehension questions is presented in a descending order of frequency of targeting in Table 1. The frequency (percentage) next to each category represents the percentage of 338 questions across 15 papers from 1993-2007 that targeted that specific textual feature.

The next section will define and describe with examples each of the textual feature identified in the proposed taxonomy.

Table 1. Proposed Taxonomy of Typical Textual Feature Targets

1.	Processes (72%)
2.	Clause Complexes (51%)
3.	Referring Expressions (50%)
4.	Adjectives (41%)
5.	Themes in Clauses (37%)
6.	Epithets: Experiential & Interpersonal (33%)
7.	Conjunctions (30%)
8.	Attitudinal Lexis (30%)
9.	Nominalisations (21%)
10.	Adverbs (18%)
11.	Nominal Groups (18%)
12.	Abstract Nouns & Nouns (17%)
13.	Lexical Cohesion & Expectancy Relations (13%)
14.	Relative Clauses (Defining and Non-Defining) (12%)
15.	Verbal Group Complexes (12%)
16.	Prepositional Phrases (12%)
17.	Non-Finite Clauses (8%)
18.	Embedded Nominal Clauses (7%)
19.	Polysemous Words (6%)
20.	Nominal Group Complexes (5%)

### **Description of Targeted Textual Features**

In this section, all textual features identified as objects of interpretation in the analysis are described using examples from the data set (identified by year of Paper and question number) accompanied by targeting frequency (percentage of questions across all Papers that required interpretation of a particular textual feature in order for readers to arrive at the answer) followed by a commentary and discussion. To facilitate the discussion, the textual features (TF) have been re-arranged in terms of unit and level of text from the largest to smallest, that is, clause complex level, clause level, group level and word level (see Tables 2 - 7). All textual features have been defined and underlined in the examples provided unless otherwise stated.

Table 2. Textual Features at Clause Complex Level

No	Textual Feature	Definition/ Examples	Freq %	
1	Clause Complexes (// separates clauses)	A Clause Complex is made up of one or more clauses that are linked and is conventionally referred to as a sentence.	45%	51%
		e.g. <i>It had been climbed a good many times, //but the parties of climbers had always needed the support of local people in guiding them to the mountain and in ferrying their supplies there.</i> (1998:2a)		
	Embedded Clause Complexes ([[ ]] )	Clause Complexes that further qualify information given in the main clause. e.g. <i>It had been climbed a good many times, but the parties of climbers had always needed the support of local people [[ in guiding them to the mountain//and in ferrying their supplies there]].</i> (1998:2a)	6%	

*The Target of the Question*

Table 3. Textual Features at Clause Level

No	Textual Feature	Definition/ Examples	Freq %	
2	Themes	Themes refer to the element in the clause that serves as the starting point that shows how one clause relates to another. The theme could be a nominal, prepositional, adverbial or verbal group, conjunctions (textual) or modal adjuncts (interpersonal). Themes that contain elements of the clause that is not the actor i.e. that contain the circumstances or the event are considered the marked (i.e. non-typical) form of the theme.		37%
	Textual (T) Marked (M),	e.g. <i>Through the ages</i> (M) <i>the predators have continued to evolve in both agility and cunning, while</i> (T) <i>their prey have become ever faster and their senses ever keener. Thus,</i> (T) <i>nature has fine-tuned the disparate abilities of both sets of participants in the fight.</i> (2005:4b)	25%	
			9%	
	Interpersonal	e.g. <i>Frequently, the efficiency of the work suffers.</i> (2004:3)	3%	

Table 3 (Continued). Textual Features at Clause Level

No	Textual Feature	Definition/ Examples	Freq %	
3	Defining Relative Clause	Defining Relative clauses are embedded clauses introduced by relative pronouns such as <i>who</i> , <i>which</i> or <i>that</i> which seeks to define or specify or characterise something. e.g. <i>Of the hastily assembled crew <u>who had volunteered for the rescue mission</u>, only Flight Engineer Gordon had not made the journey before, but he was engaged to one of the women geologists and had pleaded to be included.</i> (2007:5)	8%	12%
	Non-Defining Relative Clauses	Non-Defining Relative clauses are also embedded clauses introduced by relative pronouns except that they add a further description to something that is already fully specific. e.g. <i>They have great speed, <u>which they can sustain over long distances.</u></i> (2005:4a)	4%	
4	Non-Finite Clauses	A Non-Finite clause is a clause that contains Verb-ing forms or to + Verb and lacks a subject that needs to be traced from earlier clauses. e.g. <i>As soon as stocks become too low in one sector, <u>the fishing fleets move on to other more profitable areas, leaving behind shattered communities of people on shore.</u></i> (2006:4)	8%	
5	Embedded Nominal Clauses	Embedded Nominal clauses are complete clauses that are embedded in a matrix clause as the participant i.e. functions as the subject of the clause. e.g. <i><u>This marvellous vessel he commanded</u> was on her first voyage while he, ironically was on his last.</i> (1999:5b)	7%	

*The Target of the Question*

Table 4. Textual Features at Group/ Phrase Level

No	Textual Feature	Definition/ Examples	Freq %
6	Nominal Groups	A Nominal group is made up of a Thing post-modified by a qualifier. e.g. <i>A great deal of luck is needed to spot them.</i> (2002:3b)	18%
7	Nominal Group Complex	Nominal Group Complexes are expanded nominal groups made up of more than one nominal group. e.g. <i>In those countries where there was a rush to make money out of sea-side holidays, overcrowded beaches and concrete jungles of endless hotels have begun to lose their appeal.</i> (1995:5a)	5%
8	Verbal Group Complex	A Verbal Group Complex is an expanded form of the verb or Event, often bringing together two lexical verbs to provide a comprehensive picture of the event. e.g. <i>In some communities, horses <u>came to be seen</u> as a form of money, especially in the wild, open country where they represented the only method of travel.</i> (2003:3)	12%
9	Prepositional Phrases	These are phrase made up of a preposition and a Nominal group. e.g. <i>Their claim that Titanic was unsinkable was plausible but unfortunate in the light of subsequent events.</i> (1999:2d)	12%

Table 5. Textual Features at Word Level: Processes

No	Textual Feature	Definition/ Examples	Freq %
10	Processes	Processes are typically verbs or verbal groups that are classified according to their functions such as material processes (acting, doing and happening verbs), mental processes (thinking and sensing verbs) and relational clauses (describing and identifying verbs).	72% (inclusive of behavioural, verbal, existential processes (4%))
	Material	e.g. <i>They <u>devoured</u> soft tissue and <u>crushed</u> the bones in their jaws.</i> (2002:2)	46%
	Mental	e.g. <i>But as time went by this link was broken; the belief that animals possessed souls disappeared and Man therefore came to <u>think</u> that he was superior to animals.</i> (1997:2c)	8%
	Relational	e.g. <i>It <u>was</u> innocently cloaked in green with pastures, orchards and vineyards spreading up its sides.</i> (1996:2a)	14%



*The Target of the Question*

Table 6. Textual Features at Word Level: Cohesive Devices

No	Textual Feature	Definition/ Examples	Freq %	
11	Referring Expressions	Referring Expressions are pronouns or articles that are used to refer to participants in a text categorised in terms of where the referent can be found or complexity of referent.		
	Anaphoric Referring Expressions	The referent of the referring expression can be found by going backwards over the text to find the interpretation. e.g. <i>Standing among the thistles in the growing season one could almost hear <u>them</u> (= thistles) growing as the huge leaves freed themselves with a jerk from a cramped position, producing a crackling sound.</i> (1994: 1c)	36%	50%
	Cataphoric Referring Expressions	The referent can be found by going forwards in the text to find the interpretation.	4%	
		<i>Jungle once more shrouded the (=I was following) path I was following.</i> (1998:5)		
	Extended Text Referent	The referent is found by going backwards but involves the interpretation of entire clauses or large nominal groups.	8%	
		<i>No multi-tasking there; <u>their lives proceeded at a much gentler pace, and in a familiar pattern.</u> There is much that we might envy about a way of life like this (= lives proceeding at a much gentler pace, and in a familiar pattern)</i> (2004:5)		

Table 6 (Continued). Textual Features at Word Level: Cohesive Devices

No	Textual Feature	Definition/ Examples	Freq %
	Comparative Reference- 'such'	The referent is an item e.g. such being compared to something that has previously been mentioned. Zang took off after the leading runner with a fury that made me hold my breath. Surely he couldn't sustain <u>such</u> (= <i>fury</i> ) frenzied energy. (2004:10a)	2%
12	Conjunctions	Conjunctions are linking words that show the relationship between clauses that may either be additive, causative, adversative or temporal.	30% (inclusive of condition & implicit conjunctions (5%))
	Additive	e.g. <i>Similarly, the bowed head or drooping tail shows readiness to take second place in any gathering.</i> (2000:3)	7%
	Causative	e.g. <i>The competition for this honour, personally bestowed was all the greater <u>because</u> of the discomforts of standing anywhere else in the boat.</i> (1993:2a)	8%
	Adversative	e.g. <i>Biologist can readily indicate that particular area of our brain where speech mechanisms function <u>but</u> this doesn't tell us how that part of our bodies originated in our biological history.</i> (2000:4a)	7%
	Temporal	e.g. <i>I was just about to make my way back to Tickie <u>when</u> deep from the surroundings bush came the sound of rifle fire.</i> (2001:5a)	3%

*The Target of the Question*

Table 7. Textual Features at Word Level: Lexical Items

No	Textual Feature	Definition/ Examples	Freq %	
13	Adjectives	Adjectives are words that modify nouns showing the details, quality or property of the person, place or thing.	41%	
		e.g. <i>Meanwhile, as one of the lookouts reached the end of his watch, an <u>ominous</u> smudge the size of his hand loomed on the horizon dead ahead.</i> (1999:11.8)		
14	Epithets (Experiential)	Experiential Epithets describe the objective property of a Thing. e.g. <i>It had about 20,000 residents, and was situated on a <u>well-watered</u> coastal plain with particularly fertile soil bearing two or more crops a year.</i> (1996:1a)	13%	33%
	Epithets (Interpersonal)	Interpersonal Epithets are words used to present the subjective description of a person's attitude towards the Thing. e.g. <i>Being fashioned out of metal, they had a <u>special</u> value since it required a good deal of labour to extract metal from the earth.</i> (2003:4b)	20%	
15	Adverbs	Adverbs are words that modify or qualify verbs, adjectives or preposition in terms of manner, quality or intensity.	18%	
		e.g. <i>Animals also suffered at the hands of Man in that they were <u>gradually</u> but <u>systematically</u> destroyed by the Europeans to make way for agricultural land to provide food for a <u>fast</u> growing population.</i> (1997:8.6)		

Table 7 (Continued). Textual Features at Word Level: Lexical Items

No	Textual Feature	Definition/ Examples	Freq %	
16	Attitudinal Lexis	Attitudinal Lexis are emotive words that reflect the author's attitude towards someone or something. These are usually modal vocabulary which may be nouns, adjectives, verbs or adverbs.	30%	
		e.g. <i>Still bound by a massive weight of rope and chain, and one anchor, but <u>slave</u> to an overwhelming impulse to head south, the whale resumed its migratory path.</i> (2006:8b)		
17	Nouns	Nouns are words used to name people, places and things.	4%	17%
		e.g. <i>This communication undoubtedly gave them the edge over many of their four-footed <u>rivals</u> in prising out the secret scraps of energy-giving food that dotted the landscape .</i> (2002:9.7)		
	Abstract Nouns	Abstract Nouns are words that name a quality, idea or feeling that has no physical form, existing only as a mental concept.	13%	
18	Nominalisations	Nominalisations are where the content of an entire clause is packed into noun groups for labeling or describing.	21%	
		e.g. <i>Language would foster the <u>co-operation</u> needed.</i> (2000:4b)		

*The Target of the Question*

Table 7 (Continued). Textual Features at Word Level: Lexical Items

No	Textual Feature	Definition/ Examples	Freq %	
19	Lexical Cohesion	Lexical Cohesion refers to the synonymous and antonymous links between words in the text. e.g. <i>One might expect that the ever-growing demands of the tourist trade would bring <u>nothing but good</u> for the countries that receive the holiday-makers. Indeed, a <u>rosy</u> picture is painted for the long-term future of the holiday industry.</i> (1995:4a) (i.e. nothing but good – rosy)	7%	13%
	Lexical Expectancy Relations	Lexical Expectancy Relations refers to the collocation tendencies between words in a text. e.g. <i>Zang took off after the leading runner with a <u>fury</u> that made me hold my breath. Surely he couldn't sustain such <u>frenzied</u> energy. Had his <u>destructive demon</u> taken over?</i> (2004:10a) (i.e. <i>destructive demon- fury; frenzied</i> )	6%	
20	Polysemous Words	These are words that have the same spelling and pronunciation but with multiple related meanings. e.g. <i>The thirty-ton creature was beginning its migration to the <u>rich</u> feeding grounds of Antarctica, thousands of miles to the south and still many weeks away.</i>	6%	

### *Clause Complex Level*

The analysis has shown that Clause Complexes, both embedded or non-embedded, are targeted quite frequently (51%) by test writers; they require more complex text processing as the contents of each clause must be noted, and the relationship between the two or more clauses found in clause complexes must be interpreted. Embedded clause complexes present further challenges because they qualify information given in the main clause and require readers to read more intensively to capture the full meaning intended by the writer. This linguistic skill is tested because readers need to learn not only to hold the various bits of information in each clause, but also note the linking words to interpret the relationship between the ideas in each of the clauses.

*Clause Level: Themes.* Theme is defined by Halliday & Matthiessen (2004, p. 64) as the element in the clause that serves as the “starting point for the message: it tells us what the clause is going to be about”. The Theme contains the familiar or ‘given’ information which has been mentioned elsewhere in the text or is familiar from the context (Egins, 2004, p. 299). The choice of themes allows for certain kinds of information to be “foregrounded” or thematised and characterises particular genres. For example, conversational speech tends to place items such as I, you in first position (labelled as interactional thematisation) compared with written texts which tend to use topic-based thematisation i.e. using words and phrases that “refer to some aspect of the topic including pronouns” (McCarthy & Carter, 1994, p. 71).

Interpersonal Themes such as undoubtedly, obviously “reveal the attitude of the speaker or writer about the truth or validity of the propositions which will follow”, while Textual Themes are words and phrases which give thematic prominence to textual elements with a linking function and “provide explicit organisational signals of how the text is to be read” (McCarthy & Carter, 1994, p. 72). Marked Themes are those that carry elements of the clause that are

### *The Target of the Question*

not the subject of the clause, such as verbal groups (e.g. Processes) or circumstantial elements (e.g. Prepositional or Adverbial groups) which take greater textual prominence and draw attention to the action or specific circumstances that may be critical to the meaning intended by the writer.

The Theme of a clause, whether Textual, Marked or Interpersonal provides signposts to the development of the ideas in the text (Butt, Fahey, Spinks & Yallop, 1995, p.91), showing how one clause relates to the rest of the clauses. The Themes of clauses were targeted in 37% of questions. The high occurrence is to be expected because the impact that thematic structure has on the development of meaning in a text makes them critical indicators of meaning; readers must be able to interpret Themes in order to fully appreciate the meaning intended by the writer.

*Clause Level: Types of Clauses.* Test writers chose particular kinds of clauses, such as Defining (8%) and Non-Defining (4%), Relative clauses, Non-Finite clauses (8%) and Embedded Nominal clauses (7%) as the objects of interpretations in their questions. Defining and Non-Defining Relative clauses are introduced by relative pronouns such as who or which. While Defining Relative clauses define or specify a particular subset of a class of things, Non-Defining Relative clauses are simply descriptive, providing further information on something or someone in the text. Test writers probably target these Relative clauses, because they allow test writers to assess readers' capacities to notice these finer elaborations or specifications and their implications for the meaning presented in the text. Non-Finite clauses (clauses with unstated subjects), force readers to trace from earlier clauses who or what is being discussed making them equally important targets in reading tests. Embedded Nominal clauses are full clauses that act as the subject of a matrix clause. This construction in a clause requires readers to interpret not only the Embedded Nominal clause but also to see what the matrix clause is saying about it. The increased cognitive load and detailed reading required to interpret the full meaning of the matrix clause makes Embedded Nominal clauses a worthwhile target for test writers.

### ***Group Level***

Nominal Groups (18%) and Nominal Group complexes (5%) are expansions of the element that make up the Participant or subject of the clause. Nominal Groups consist of a Thing that is postmodified by a qualifier while Nominal Group complexes are made up of two or more nouns. Verbal Group complexes (12%) similarly are expanded descriptions of the Event. In all cases, test writers target these textual features to check whether readers can unpack the descriptions and pick up on the additional meanings carried by expanding elements in these structures.

### ***Phrase Level***

Both these textual features make up the circumstantial element in the clause. While Prepositional phrases (12%) augment the meaning of the matrix clause by providing details about the location or time, Adverbial phrases (3%) provide details about quality or intensity. These phrases are targeted because they indicate whether readers are able to identify these peripheral but significant details and evaluate their implications for the meaning intended by the writer.

### ***Word Level***

*Word Level: Processes.* According to Halliday & Matthiessen (1994, p. 176) the Process or Event is “the most central element” in the configuration of a clause representing the “experiential centre of the clause”. This suggests that the Process or Event, often represented by a verb or verbal group, represents the key information presented in a text which explains why Processes as a targeted textual feature, registered the highest frequency of 71% among all textual features. While this high frequency may be related to their high distribution in most texts, Processes must be acknowledged as important targets for test writers. It should be noted that while most clauses in a text have Participants either as the doer or receiver of the action and would consequently register



### *The Target of the Question*

an equally high distribution in texts, Participants represented by Nominal Groups, Nominal Group complexes, Nominalisations, Nouns and Abstract nouns registered only a combined total of 61% in terms of targeting frequency compared to 72% for Processes. This significant difference suggests an overt targeting of Processes by test writers. Material, Mental and Relational Processes registered the highest frequencies of 46%, 8% and 14% respectively. Material Processes capture outer experience of the material world and Mental Processes capture inner experience of the world of consciousness. Both these experiences “may be construed by Relational Processes but they model this experience as ‘being’ rather than as ‘doing’ or ‘sensing’” Halliday & Matthiessen (2004, p. 211). It is not surprising that test writers target Relational clauses because they provide description and identifying details about the characters or things in the text which represent information that is significant to the comprehension of a text.

Halliday & Matthiessen (2004) highlight that Mental, Material and Relational Processes are the three principal types of Processes in the English language and represent the majority of all Processes in a text. The analysis of this study appears to support this fact in that the top three frequencies among the different types of Processes in terms of targeting frequencies were garnered by Mental, Material and Relational Processes. Targeting frequency is highly dependent on the distribution of particular textual features which suggests that high targeting frequencies not only reflect test writers’ preferences but also the typical distribution of the textual feature in texts. The other three Processes: Behavioural, Verbal and Existential processes are described as subsidiary Process types because of their lower incidences in texts.

It is clear from the targeting frequencies captured by the analysis that the textual features most often targeted in the UCLES Paper are Processes or Events registering a combined frequency of 72%. This is not surprising because the ‘Event’ is the heart of the clause and its message. Reading comprehension questions seek to test the reader’s ability to interpret information in a text and this

information usually revolves around the events occurring in the text. Further study of the frequencies of the various types of Processes identifies Material Processes (which captures what is happening or being done) as the most frequently targeted with a frequency of 46%, or more than half of all Processes targeted. The next most frequently targeted are Relational Processes with a frequency of 14% (which describe or identify) and Mental Processes (which captures what is being ‘sensed’ or thought) with a frequency of 8%. Verbal, Behavioural and Existential Processes (all registering a combined frequency of 4%) are not targeted as often, probably because of their lower distribution within the selected texts rather than as a reflection of the test writer’s preference. Generally, it can be concluded that test writers have a preference for targeting happenings, actions, attributes and intentions of Participants.

*Word Level: Cohesive Devices: Conjunctions and Referring Expressions.* Conjunctions and Referring Expressions contribute to textual cohesion by linking elements within the text. Conjunctions link whole clauses signalling the relationships between them such as additive, causative or temporal relations while Referring Expressions link elements such as things, people or ideas across the text to help the reader follow the writer’s train of thought (Halliday & Hasan, 1976). Both conjunctions and reference are grammatical systems (Halliday & Matthiessen, 1994, p. 538) which express Textual meanings that determine how information is organised and connected within a text. Referring Expressions is the third most frequently targeted textual feature with a targeting frequency of 50% while conjunctions registered a combined targeting frequency of 30% with adversative (7%), additive (7%) and causative (8%) relations being the most frequently targeted among the various types of conjunctive relations identified. Numerous studies have shown that success in reading comprehension is associated with knowledge of cohesion e.g. Cirilo (1981), Freebody & Anderson (1983), Moe & Irwin (1986) and Cooper (1984). Benjamin (2002) showed that procedural linguistic knowledge (that is, linguistic skills related to the interpretation of cohesive devices) was required in 51% of text

### *The Target of the Question*

processing efforts involved in the search and arrival at answers to comprehension questions.

*Word Level: Lexis*, This category covers all lexical items targeted by test writers, either as part of the text processing efforts to arrive at an answer or as a direct test of vocabulary knowledge. The types of lexical items targeted included adjectives, adverbs, nouns and verbs. The analysis for this study further classified these lexical targets according to functional grammar categories that highlight other types of meaning carried by these lexical items which may have influenced test writers' choices, such as the interpersonal meanings i.e. attitudinal lexis (30%) or multiple meanings, that is, Polysemous words (6%). Analysis of targeted Epithets which refer to lexis that either capture the objective property of an object (Experiential), or the subjective assessment of an object (Interpersonal) showed that test writers tended to target Interpersonal Epithets (20%) more often than Experiential Epithets (13%).

The category of Lexical Cohesion of Synonymy and Antonymy (7%) highlighted instances where test writers assessed readers' ability to recognise the synonymous or antonymous relations between lexical items. In the same way, the category of Lexical Expectancy Relations (6%) captured instances of test writers targeting reader's knowledge of collocation or "co-occurrence tendencies" between lexical items in a text (Halliday & Matthiessen, 1994, p. 577). Nation similarly points out that appropriate interpretation of words depends on knowledge of collocations or lexical expectancy i.e. "knowing what words it typically occurs with" (Nation, 2001, p.56). Eggins points out that tests targeting lexical expectancy targets readers' awareness of lexical items that tend "to cluster to build lexical sets or strings" (Eggins, 2004, p.42).

Two observations may be drawn from the results of the analysis of lexis that were targeted for interpretation. Firstly, it appears that test writers target emotive lexis (e.g. Attitudinal lexis and Interpersonal Epithets) and Polysemous words where readers will

need to ascertain from the range of possible meanings those meanings specific to the context of a particular text or sentence. For example, the meaning of strong in strong wind refers to the power of the wind while in the phrase strong tea refers to the concentration or thickness of the tea. The ability to infer the specific meaning within a particular context reflects a good command and awareness of how the language is used and hence presents an important target for test writers. Secondly, it appears that test writers also verify the reader's knowledge, not only of the word in question but also all other words that associated with it; that is, the semantic fields in which it may appear together with other lexical items in a particular context (Stahl, 1998). This connection between lexical items such as synonymous, antonymous or Lexical Expectancy Relations contributes not only to cohesion within a text but also enables the writer and reader to use it as a resource to express and interpret meaning. These lexical items allow test writers to assess the extent of the reader's lexical knowledge, or how to use a word syntactically, semantically and pragmatically (Richards, 1985).

*Word Level: Nominalisations, Nouns and Abstract nouns.* Nominalisations refer to instances where full clauses are converted into noun groups, often by converting Processes or Adjectives into nouns, to allow writers to describe, label and categorise phenomena in expository texts. Nominalisations help writers to pack more meaning into their sentences and allow them to comment on an event by converting a full clause into a descriptive phrase. Commonly found in scientific texts, Nominalisations allow for the discussion of Processes in a more abstract manner and consequently allow for more effective means of categorising, labelling or describing phenomena, as can be seen in the example in Table 7. Nominalisations, which registered a targeting frequency of 21%, therefore present a critical textual feature to test the reader's ability to 'unpack' the nominal group in order to determine the meaning presented. Nouns and Abstract nouns, which registered a combined frequency of 17%, represent the Participants in clauses and present more challenging tests of lexical knowledge particularly in terms of producing suitable

synonyms to demonstrate understanding. The Times-Chambers Grammar and Usage Reference (2002) describes a noun as a word used as the name of a person, animal, place, thing, quality or action. Nouns can be classified into various types such as (i) Proper nouns which name an individual person or place e.g. Singapore; (ii) Concrete Nouns which are nouns with a physical form and existence e.g. table; (iii) Abstract nouns i.e. for “something that has no physical form or existences and exists only as a mental concept, state or quality or action. Abstract nouns “names a quality, idea or feeling rather than a person, animal, place or thing” (Macmillan dictionary); that is, Abstract nouns express “concepts, abstract general ideas” (Cruz-Ferreira & Abraham, 2006, p. 165). Test writers target Abstract nouns in particular to test understanding of concepts and ideas which carry a broader notion of meaning and are cognitively more challenging to a reader compared to interpreting nouns which have a fixed physical form.

The section above consolidated the descriptions and discussion of the textual features identified in the analysis as significant targets in short-answer reading comprehension questions. The previous section presented the findings of the analysis which painted an interesting picture of what test writers targeted. (Please see Appendix A showing examples of the link between textual features and the questions that targeted them.) This study (Benjamin, 2010) also produced a detailed analysis of the question type, profile and distribution in relation to targeted textual features details (not been discussed in this paper due to space constraints). The final section explores the pedagogical implications and applications of the taxonomy for the design of reading comprehension tests, teaching methods and teacher training.

### **Pedagogical Implications of the Study**

The proposed taxonomy of textual features targets for testing reading comprehension skills has immediate and obvious contributions to the field of language testing and teaching. The

sub-sections below will present these pedagogical implications and contributions.

### ***Clarification of Testing Constructs***

The first and immediate contribution of the proposed taxonomy of textual features is the clarification it provides about the targeting choices of the UCLES test writers. It provides teachers and test writers with a concrete picture of types of textual features typically targeted and consequently points to the kinds of texts to select in terms of linguistic complexity.

The targeting preferences of test writers are often based on the writer's experience and intuition about which textual features are significant to the understanding of the particular text they are working on (Pierce, 1994). Test writers often have to make an intuitive leap to link the particular linguistic skill to interpretation of a particular textual feature, the distribution of which is pre-determined by the writing style of the authors of the texts as well as the genre of the texts selected by the test writer. The first contribution that this study has made to the field of reading comprehension testing is to convert a general intuitive awareness of possible targets into a concrete list of textual features that can be systematically and deliberately employed for designing reading comprehension questions. It has made explicit the exact textual features that are typically targeted for testing reading comprehension skills and identified what test writers consider significant in terms of linguistic skills and knowledge that a competent reader should possess. The analyses conducted in this study show that test writers of the Paper consistently targeted particular textual features with significant frequency demonstrating that these textual features are recognised (consciously or sub-consciously) to be critical to assessment of reading ability. Furthermore, the fact that the data set for this analysis comprised more than 19 different texts (drawn from two genres – narrative and exposition - radically different in types and distribution of textual features) shows that these identified textual features are ubiquitous in types of texts selected for the UCLES

### *The Target of the Question*

papers, further validating the taxonomy of typical textual feature targets proposed in this study.

Logically, examiners would choose to test reading skills that they consider to be within the required repertoire of skills demonstrated by competent readers. A good grade in the English Paper would be used by potential employers or institutions of higher learning as evidence of a candidate's command of EL. In such a high-stakes test environment, it is expected that test writers will assess the most critical reading skills, a significant number of which will be interpretation of typical textual features as identified in this study. Interestingly, some of the textual features identified in the study have been previously identified by other researchers as significant to a reader's ability to interpret texts, for example cohesive devices (Cirilo, 1981; Freebody & Anderson, 1983; Moe & Irwin, 1986; Chapman, 1983, 1984; Irwin, 1980, 1986; Fulcher, 1989; MacLean & Chapman, 1989; Williams, 1983; Spiegel, 1992; Lubelska, 1991; Benjamin, 2005), complex sentences, that is, clause complexes (Hughes, 2003); themes, pronominal systems, that is, referring expressions (Grabe, 2004) and polysemous words (Stahl, 1998). These supporting studies demonstrate the validity of the findings of this study and consequently lend credibility to the other textual features identified in this study such as Non-Finite Clauses and Epithets, yet to be investigated for their impact on reading competence.

This taxonomy of textual features therefore not only will be of great interest to novice test writers but also may be of considerable significance to professional test writers who may find this list of textual features an illuminating and perhaps useful resource for future test designing work.

### *Text Selection*

The second contribution of this taxonomy is the knowledge base it provides teachers and test writers to evaluate the suitability of texts for the construction of test questions. The first step in the design of reading comprehension test is the selection of a suitable

text that will meet the evaluation objectives of the testing instruments in terms of content and linguistic complexity. Hughes (2003) concedes that the selection of appropriate texts, which is directly dependent on knowledge of the type and distribution of textual features to be targeted, is often based on the experience, judgement and common sense of the text writer. The range and complexity of comprehension questions that can be designed in a text is primarily driven by the availability of suitable 'targets' in a selected text. The already complex process of test design work can be frequently derailed by texts that do not have a good range of textual targets forcing the teacher or test writer to start the process all over again. This taxonomy of textual features will therefore make the selection of suitable texts much more 'on target' by identifying the specific patterns of textual details to look for when evaluating texts for suitability. Teachers and text writers should, based on the findings of this study, evaluate potential texts at the clause, group and word level. Good texts would have a good distribution of clause complexes linked in specific ways (i.e. with good range of conjunctions or conjunctive expressions) with sufficient embeddings in the form of nominal, verbal, prepositional and adverbial complexes or embedded clause complexes. Up to 51% of questions targeted clause complexes including embedded ones. These textual features will not only allow for the testing of specific reading skills but also increase the cognitive load on the reader who will need to hold details in the embeddings that must be linked to main ideas in the matrix clause to make full sense of the meaning presented. Textual features such as Relative clauses (both Defining and Non-Defining) and Non-finite clauses also contribute to the complexity of the coding of information in the text, which in turn present challenging textual targets for evaluation.

Another important feature of texts that teachers and test writer should evaluate is text cohesion i.e. the distribution of cohesive devices such as referring expressions which help readers track ideas in the text, conjunctions which show how ideas are linked to one another as well as lexical cohesion created by synonymous and antonymous relations between words in the text. At the word



### *The Target of the Question*

level, the range of content words like verbs, nouns, adjectives, adverbs and epithets should be scrutinised to ensure sufficient targets for testing interpretation of meanings within context. Apart from these, the distribution of attitudinal lexis which involve the interpretation of pragmatic meanings within texts such as attitudes and beliefs should also be taken into consideration in the evaluation of potential texts. In expository texts, test writers and teachers need to note that nominalisations (targeted in 21% of questions) are important targets for testing because they require readers to unpack them in order to establish meaning.

### ***Teaching Methodology and Material Design***

The third contribution that the proposed taxonomy of textual features can make is in the area teaching methodology and material design. The range of textual features identified in the study can be used to inform the content of training materials and classroom lessons. Teachers can train their students in specific strategies to interpret the particular textual features identified in the taxonomy such as tracing the referent for referring expression or the participant in Non-finite clauses and exploit them more aggressively in their text processing efforts when searching for answers to questions.

An important distinction should be made between worksheets designed to help students hone their linguistic skills and test papers that simply seek to evaluate their ability to apply them. Worksheets should be designed to highlight the structure and functions of textual features to help students learn how to exploit them more effectively in their text processing efforts. Nuttall recommends that teachers not only should design questions that clarify the contents of the text i.e. ‘what’ the writer says but more importantly include questions that clarify the linguistic structure of the texts i.e. “how the writers says what she means” (Nuttall, 1996, p.189). The textual features identified in this study could and should be used by teachers to provide more concrete and specialised practice and scaffolding lessons to their students to improve their performance in reading comprehension activities.

### ***Error Analysis***

The final area of contribution of the study is in the area of error analysis for diagnosis and remediation purposes. The text processing procedures as captured and presented in section 1.4 and Appendix A can be used to outline the steps required in terms of the array of textual features that need to be interpreted to arrive at the answers to questions designed by teachers. When teachers have better understanding of the types of textual features they are testing with the questions they design, they will also be able to easily identify the specific textual features that their students are having problems interpreting, and consequently hampering their ability to arrive at the correct answer. Teachers can therefore diagnose the specific weakness of their students based on their performance and use this to determine the content of their remedial activities. Teachers with good understanding of textual features as identified in this study will be better able to diagnose and remediate more accurately their students' specific areas of weakness in text interpretation skills.

### **Conclusion**

This study began with the objective of identifying the range of textual features that could be targeted in reading comprehension tests. The main purpose was to provide novice and experienced test writers with better support in terms of frameworks of question design and textual targets specific to the Cambridge examinations. This study identified the range of textual features targeted in the comprehension section of the English Paper 2 of the University of Cambridge 'O' Level examinations across 15 years from 1993 to 2007. The top twenty categories of textual features, which registered the highest frequencies were collated and presented as a proposed taxonomy of textual features targets. Analysis of the UCLES Paper revealed it to be a demanding test of reading comprehension ability in both the range and depth of reading skills, textual features and lexical knowledge targeted. Candidates who successfully pass this examination would have a competitive edge in the economies and institutions of higher learning in

### *The Target of the Question*

English speaking countries. The skills involved in interpretation of these identified textual features have also been shown to reflect fairly comprehensively the reading skills that the syllabus identifies as critical to empower learners with lifelong learning skills necessary to keep up with social, technological and economic advancement.

Language is the primary means of an individual's acquiring social, cultural and technical knowledge of the world (House, 2008, p. 11). If knowledge is power, then literacy is the conduit of that power in the increasingly information-based economies of the world. The ability to read is therefore one of the most critical academic skills on which all learners will depend for most of their academic and professional careers because it is the key that unlocks the door to all knowledge bases of the world and consequently their capacity to remain relevant on the global and international stage.

### **References**

- Benjamin, I.S. (2003). *Reading Comprehension Questions: The Good, the Tricky and the Vague*. Paper presented at 38th RELC International Seminar, 2003: Singapore.
- Benjamin, I.S. (2002). *An Analysis of the Linguistic Skills and Knowledge Bases Targeted By Comprehension Component of the GCE 'O' Level English Paper 2 from 1998 to 2000*. Unpublished master's thesis, National University of Singapore.
- Benjamin, I.S. (2005). What to Teach? Procedural and Declarative Knowledge Significant to Reading Comprehension Ability. In Poedjosodarma, G. (Ed), *Innovative Approaches to Reading and Writing Instruction*. Anthology Series 46 (pp. 91-98). Singapore: SEAMEO Regional Language Centre.
- Benjamin, I.S. (2010). *'The Target of the Question': An Investigation of Textual Features Typically Targeted in Reading Comprehension Question*. Unpublished Doctoral Thesis, The University of Western Australia.

- Butt, D., Fahey, R., Spinks, S. & Yallop, C. (1995). *Using Functional Grammar – An Explorer’s Guide*. Sydney: Macquarie University.
- Chapman, L.J. (1983). *Reading Development and Cohesion*. Portsmouth, N.H.: Heinemann.
- Chapman, L.J. (1984). Comprehending and the Teacher of Reading. In J. Flood (Ed.), *Promoting Reading Comprehension* (pp. 261-272). Newark, Del.: International Reading Association.
- Cirilo, R. K. (1981). Referential Coherence and Text Structure in Story Comprehension. *Journal of Verbal Learning and Verbal Behaviour*, 20, 358 –367.
- Cooper, M. (1984). Linguistic Competence of Practised and Unpractised Non-Native Readers of English. In A.H. Urquhart & C. Anderson (Eds.), *Reading in a Foreign Language*. (pp. 122-138). London: Longman.
- Cruz-Ferreira, M. & Abraham, S.A. (2006). *The Language of Language* (2nd ed.). Singapore: Pearson Prentice Hall.
- Eggs, S. (2004). *An Introduction to Systemic Functional Linguistics*. London: Continuum.
- Freebody, P. & Anderson, R.C. (1983). Effects of Vocabulary Difficulty, Text Cohesion and Schema Availability on Reading Comprehension. *Reading Research Quarterly*, 18, 277 – 294.
- Fulcher, G. (1989). Cohesion and Coherence in Theory and Reading Research. *Journal of Research in Reading*, 12: 2, 146-162.
- Graddol, D. (1997). *The Future of English?* London: British Council.
- Grabe, W. (2004). Research on Teaching Reading. *Annual Review of Applied Linguistics*, 24, 44-69.
- Halliday, M.A.K. (1994). *An Introduction to Functional Grammar* (2nd ed.). London: Edward Arnold.
- Halliday, M.A.K. & Hasan, R. (1976). *Cohesion in English*. London: Longman.
- Halliday, M.A.K. & Matthiessen, C.M.I.M. (2004). *An Introduction to Functional Grammar*. (3rd ed.). London: Hodder Education.

- House, J. (2008). What is an 'Intercultural Speaker'? In E. Alcon Saler & M.P. Safont Jorda (Eds.), *Intercultural Language Use and Language Learning*, pp7-21. Springer Science + Business Media B.V.
- Hughes, A. (2003). *Testing for Language Teachers* (2nd ed.). Cambridge: Cambridge University Press.
- Irwin, J. W. (1980). *The Effects of Linguistic Cohesion on Prose Comprehension*. *Journal of Reading Behaviour*, 12: 4, 325-332.
- Irwin, J. W. (1986). Cohesion and Comprehension: A Research Review. In J. W. Irwin (Ed.), *Understanding and Teaching Cohesion Comprehension* (pp. 31-44). Newark, Del.: International Reading Association.
- Kramer-Dahl, A. (2007). Teaching English Language in Singapore after 2001: A Case study of change in progress. In V. Vaish, S. Gopinathan & Y. Liu (Eds.), *Language, Capital and Culture: Critical Studies of Language and Education in Singapore* (pp. 47-71). Sense Publishers: Rotterdam, The Netherlands.
- Lubelska, D. (1991). An Approach to Teaching Cohesion to Improve Reading. *Reading in a Foreign Language*, 7(2), 569-579.
- Maclean, M. & Chapman, L.J. (1989). The Processing of Cohesion in Fiction and Non-Fiction by Good and Poor Readers. *Journal of Research in Reading*, 12:1, 13-28.
- McCarthy, M. & Carter, R. (1994). *Language as Discourse – Perspectives for Language Teaching*. Cambridge: Cambridge University Press.
- Ministry of Education. (2010). *English Language Syllabus (Primary and Secondary)*. Curriculum Planning and Development Division. Singapore.
- Moe, A.J. & Irwin, J.W. (1986). Cohesion, Coherence and Comprehension. In J.W. Irwin (Ed.), *Understanding and Teaching Cohesion Comprehension* (pp. 3-8). Newark, Del.: International Reading Association.
- Munby, J.L. (1978). *Communicative Syllabus Design*. Cambridge: Cambridge University Press.

- Pierce, B.N. (1994). The Test of English as a Foreign Language: Developing Items for Reading Comprehension. In C. Hill & K. Parry (Eds.), *From Testing To Assessment: English as International Language* (pp. 39-60). New York: Longman.
- Rice- Oxley, M. (2007, July). British Move To ‘Teach Less’ In Schools Draws Protest. *The Straits Times*, p. 13.
- Richards, J. C. (1985). *The Context of Language Teaching*. Cambridge: Cambridge University Press.
- Spiegel, D.L. (1992). Linguistic Cohesion. In J. W. Irwin & M. A. Doyle (Eds.), *Reading and Writing Connection: Learning from Research* (pp. 55-80). Newark, Del.: International Reading Association.
- Stahl, S. A. (1998). Four Questions about Vocabulary Knowledge and Reading and Some Answers. In C.R. Hynd (Ed.), *Learning from Text across Conceptual Domains* (pp. 73-94). NJ: Lawrence Erlbaum Assoc, Inc., Publishers.
- Times-Chambers English Grammar & Usage. 2002. Times Media Private Limited. Singapore.
- Williams, R. (1983). Teaching the Recognition of Cohesive Ties. *Reading in a Foreign Language*, 1(1), 35-52.

## Appendices

### Example 1: Marked Themes (2005, q 11):

TEXT: *A gentle breeze fanned our faces, and, here and there, were clumps of grass sprouting from cracks in the arid soil. With renewed spirits, we pressed on until we reached the crown of a long slope. We looked down into a wide-spreading valley as if in a dream. Far below appeared the lush green of grass speckled with white flecks.*

*'Sheep, Kolemenos?' I asked*

*'Yes, Rawicz, they're sheep all right,' he replied. At*

***last** we were certain that we had escaped from that infernal land.*

QN (Content Question): *What finally convinced the travellers that they had left the Gobi desert behind?*

ANS: They saw sheep.

Comment: The question requirement for the final event that convinced the travellers that they had left the Gobi desert is signalled in the text by the bolded Marked Theme *At last* which identifies the contents of the previous clause as the answer. It is interesting to note that the examiners' report for this question highlighted the fact that a number of candidates had included the grass as part of the answer and were penalized because they failed to pay attention to the question requirement for the final factor that convinced travellers, which was the presence of sheep. This demonstrates that test writers were deliberately targeting the interpretation of the Textual Theme *At last*.

*This question also targeted the interpretation of the following textual features:*

- a) *Mental Process: "...we were certain..."*
- b) *Referring expression: "that (= Gobi desert) infernal land"*
- c) *Relative Defining Clause: ..that they had left the Gobi Desert behind*

d) **Interpersonal Epithet:** “*..that infernal land*”

e) **Nouns:** “*... they’re sheep all right.*”

**Example 2: Non-finite Clauses (1994, q 1c):**

TEXT: *The wonder was to see the plants which throw out such vast leaves producing stems so close together as to be virtually touching. Standing among the thistles in the growing season one could almost hear them growing, as the huge leaves freed themselves with a jerk from a cramped position, **producing a crackling sound.***

QN (Vocabulary Qn): ‘*..one could almost hear them growing*’.  
*Explain fully why the author uses the word ‘almost’ here.*

Comment: The answer targeted by the question can be found by noting the contents of the bolded Non-Finite clause which describes the crackling sounds produced by the leaves trying to free themselves and noting the connection to the earlier clause created by the conjunction *as* to find the explanation why the author could *almost* hear the plants growing.

This question also targeted the interpretation of the following textual features:

a) **Referring expressions:** “*..as the (=thistles) huge leaves freed themselves..*”

b) **Adverb:** “*...could almost hear them...*”

c) **Prepositional phrase:** “*..with a jerk from a cramped position..*”

d) **Conjunction:** “*...as the huge leaves...*”



**Example 3: Polysemous Words (1994, q 3b):**

TEXT: *At such times the sight of smoke in the distance would cause every man who saw it to mount his horse and **fly** to the danger spot.*

QN (Vocabulary Qn): *Why does the author use the word 'fly' instead of ride?*

ANS: The word 'fly' is used to show that the rider was moving very fast, almost flying there.

Comment: The targeted word *fly* (bolded) in the question and text is a polysemous word. Polysemous words are words which have the same spelling and pronunciation but have multiple related meanings (Cruz-Ferriera & Abraham, 2006:178). Polysemous words are a natural choice for test writers because of the multiple meanings held by the targeted word which forces the reader to analyse the context to see which particular meaning is being presented.

This question also targeted the interpretation of the following textual features:

- a) *Referring expressions*: “... **man who saw it (=smoke) to the (= smoke in the distance) danger spot..**”
- b) *Defining Relative Clause*: “..**every man who saw it..**”
- c) *Epithet (Interpersonal)*: “..**the danger spot..**”
- d) *Material Processes*: “..**fly to the danger spot..**”
  
- e) *Nominal group*: “**At such times the sight of smoke in the distance would cause...**”

**Example 4: Lexical Expectancy Relations (1997, q 3a):**

TEXT: *There were several effects of this new attitude towards animals. One was that they came to be used for entertainment, often of a **degrading** nature. Traveling showmen included monkeys and dancing bears in their displays, making these animals **look foolish**.*

QN (Content Qn): *The writer refers to the use of animals for a 'degrading' form of entertainment. In what way was it 'degrading' to them?*

Comment: The question targets the Lexical Expectancy Relations between the adjective *degrading* and the phrase *look foolish*. The term Lexical Expectancy Relations describes a “predictable relation between a Process and either the doer of that Process or the one affected by it” where nominal elements are linked to verbal elements (Eggs, 2004:43), for example, *pipe-smoke* or *doctor-diagnose*.

This question also targeted the interpretation of the following textual features:

- a) **Referring expressions:** “... *making these (= monkeys and dancing bears) animals look foolish*.”
- b) **Epithet (Interpersonal):** “..*degrading nature..*” and “..*look foolish*.”
- c) **Prepositional phrase:** “ *they came to be used for entertainment, often of a degrading nature.*”

**Example 5: Nominalizations (2005, q 5(b)):**

TEXT: *This ability is demonstrated most clearly when people risk their lives to help others, they feel such pity for those in danger that **self-preservation** is totally forgotten.*

QN (Content-Vocabulary Qn): *Explain in your own words what makes their help particularly praiseworthy?*

Comment: The question requires readers to evaluate the *help* rendered, interpret the bolded Nominalization *self –preservation* and unpack it to see that the need to preserve the self is *totally forgotten*, making this behaviour praiseworthy. Nominalization is described as “packing the content of clauses into noun groups” (Lock, 1996:60). Nominalizations help writers to pack more meaning into their sentences and allow them to comment on an event by converting a full clause into a descriptive phrase. Since Nominalizations require unpacking in order to ascertain their complete meaning, they are good targets for testing reading comprehension ability.

This question also targeted the interpretation of the following textual features:

- a) *Cataphoric and Anaphoric Referring expressions*: “... when people risk their lives to help others (=those in danger (cataphoric)), they (=people who risk their lives to help others) feel such pity for those in danger that...”
- b) *Defining relative clause (embedded)*: “...they feel such pity for those in danger that self-preservation is totally forgotten.”
- c) *Mental Process*: “..they feel such pity for those in danger that...”
- d) *Attitudinal lexis*: : “..they feel such pity for those in danger that...”
- e) *Adverb*: “..totally forgotten.”