

How Reading Comprehension and Summary Skills in English Have Been Examined by the Zimbabwe Schools Examination Council (ZIMSEC) at 'O' Level - An Appraisal

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Abstract

The study investigated the Zimbabwe Schools Examination Council's (ZIMSEC) examination of reading comprehension and summary in 'O' level English, focusing on, *inter alia*, the skills, texts used, questioning techniques, candidates' performance in reading comprehension and summary vis-a-vis their composition writing performance, and on whether how the skills have been examined has influenced teaching. The research was qualitative. Document Analysis was employed. Thirty 'O' level English teachers who were assistant examiners were also purposively selected from schools in Masvingo Province and interviewed using a semi-structured guide. The ZIMSEC Subject Manager for English was interviewed to provide further insights. Emerging themes were then categorized and interpreted. The inquiry established that ZIMSEC has tended to emphasize contextual and literal skills at the expense of other comprehension skills, and identification of relevant ideas at the expense of other summary skills. Narrative-descriptive passages have been used, without due regard to the socio-cultural backgrounds of Zimbabwean candidates. Reading comprehension skills have been examined solely through short answer items. Candidates' performance was worse in comprehension and summary than in composition. It also emerged that ZIMSEC's examination of the skills largely influenced teaching. The study proffers recommendations to both ZIMSEC and 'O' level English Language teachers.

Introduction

This introductory section focuses on the background to the problem, the research questions, the research problem, and the justification and relevance of the study. Following its historic weaning from the University of Cambridge Local Examinations Syndicate (U.C.L.E.S.), the Zimbabwe School Examinations Council (ZIMSEC) unveiled its ambitious statement of vision, mission and core values that would guide the organisation's *modus operandi* in its conduct and administration of the localized examinations. ZIMSEC's 2001 Annual Report presents the organisation's vision, mission and core values, respectively, as:

- (i) To be the centre of excellence within the sub-region and beyond in quality assessment in education.
- (ii) The quality assessment of candidates' learning/performance and awarding of nationally recognised certificates at different levels of the school education system, while optimally utilizing the human and material resources available to it.
- (iii) Integrity, commitment, valid assessment, security and confidentiality, customer

satisfaction, optimal resources utilization and continual improvement.

This research was interested in the aspects of quality assessment, valid assessment, customer satisfaction and continual improvement regarding ZIMSEC's examination of reading comprehension and summary skills in English, at 'O' level.

Purpose of the Study

The overall objective of the inquiry was to investigate how ZIMSEC has been examining reading comprehension and summary skills in its 1122/2 papers. The study has been guided by the following research questions:

- Does ZIMSEC examine all the various reading comprehension skills reflected in the 'O' level English Language (1122) syllabus and accord these skills equitable representation in the 1122/2 papers?
- Does ZIMSEC's choice of reading comprehension passages demonstrate sensitivity to most Zimbabwean candidates' socio-cultural experiences?
- What type of passages have been used in examining the comprehension skills?
- What questioning techniques have been employed to examine the skills?
- Which summary skills have been examined?
- What are the views of 'O' level English Language teachers/assistant examiners (markers) on how ZIMSEC has been examining the reading comprehension and summary skills?
- How have candidates performed in comprehension and summary relative to their performance in composition writing?
- Has the way the skills have been examined influenced how the skills have been taught?

Statement of the Problem

We were spurred on to undertake this study by the apparent general dissatisfaction amongst ZIMSEC's stakeholders with ZIMSEC's examination system as captured by Mudavanhu, 2005 who, in concluding his study on stakeholders' views on ZIMSEC'S examination system recommends further research, at subject area level, to find out why ZIMSEC's examination system is considered to be of poor quality in terms of. This has made us curious to find out if the dissatisfaction extends to the way 'O' level English Language has been examined, with our focus being on reading comprehension and summary.

Justification and Relevance of the Study

The importance of final examinations in any education system cannot be over-emphasised. In Zimbabwe, 'O' Level is considered to be a pre-requisite in formal employment and further education and is, therefore, largely used for allocating

individuals life chances. A full 'O' Level certificate should have a pass in English Language. The paramount importance attached to 'O' level English Language has aroused our interest in investigating how ZIMSEC has been examining reading comprehension and summary skills from 1997 to 2005, skills which contribute significantly (40%) to the overall assessment of 'O' Level English Language public acceptance, and we felt obliged to respond to Mudavanhu's (2005) clarion call with respect to 'O' Level English Paper 2 (1122/2).

Literature Review

In this section we thematically review related literature under the following subheadings: **Reading Comprehension Skills, Summary Skills, Factors Influencing the Choice of Reading Comprehension Passages/Texts, Types of Reading Comprehension Tests/Questions, and Validity.**

Reading Comprehension Skills

Defining reading comprehension may not be an easy task, since a lot of cognitive processes are involved in the process of reading. Johnston (1983) sees reading comprehension as the process of using the cues provided by the author and one's previous knowledge to infer the author's meaning. However, a lot more is involved in reading comprehension than inferencing, as various other authors conceptualise reading comprehension not in terms of just inferencing, but other skills.

There is an apparent lack of agreement among authors, on exactly how many reading comprehension skills there are. Cramer (1978) observes that while testing and teaching materials suggest that there could be twenty, forty, eighty or more reading comprehension skills, research indicates that there are no more than nine discrete, measurable comprehension skills. Cramer (1978) goes on to group these skills into four components: comprehension of explicit meaning, comprehension of implicit meaning, comprehension of word meaning, and comprehension of aesthetic –appreciative meaning.

Seen as the most basic or easiest skill, comprehension of explicit meaning entails the ability to understand, at a literal level, information which is clearly stated in the text, such as locating information, identifying supporting details, finding explicit proof and answering factual questions. Bromley (1992) refers to this skill as literal comprehension and explains that it involves the recognition, recall and location of specifically stated information, something which does not require original thinking. Lapp and Flood (1978) also call this skill literal, or on the line comprehension, and elaborate that it involves recognition and recall of details, main ideas, sequence, comparison, cause-and-effect relationships, character traits, translation of ideas and information explicitly stated by classifying, generalizing, outlining, summarizing and synthesizing. Ruddell (1997) describes this skill as text-explicit, requiring the reader to understand ideas stated directly in the text. This is a selection skill (Ellis and Tomlinson, 1980).

Viewed as the most sophisticated reading comprehension skill, comprehension of implicit meaning is defined by Cramer (1978) as the ability to gain meaning through reasoning, which demands a thinking, productive and intellectual response to what is read. Lapp and Flood (1978) refer to this skill as inferential or between the lines

comprehension. Bromley (1992) also refers to this skill as reading between the lines, an interpretive and critical skill, since no logical or grammatical cue ties the question to the answer; the answer is plausible in light of the question. Ellis and Tomlinson (1980) see this as a reasoning skill, in which the reader must relate ideas and deduce additional meaning from what is stated in the text.

Viewed as the most universally recognized skill, comprehending word meaning is a contextual skill which involves inferring meanings of unknown words, phrases, expressions and pictures used in a text (Nyarawanda, 2001). It involves the ability to understand both the connotative and denotative meanings of words and phrases, extracting “the last morsel of hidden meaning” (Cramer, 1978:202). This is a lexical skill in which the reader should be able to deduce the meanings of new words from context (Ellis and Tomlinson, 1980).

The fourth reading comprehension component (skill) according to Cramer’s (1978) taxonomy, comprehension of aesthetic-appreciative meaning, is “the ability to derive personal enjoyment and meaning from materials and to understand and appreciate the ... devices associated with the interpretation of mood, tone, beauty and humour ...” (Cramer, 1978:205). Bromley (1992:125) calls this “reading beyond the lines”. This is an evaluation skill according to Ellis and Tomlinson (1980), in which the reader must be able to critically consider the writer’s material and relate it to his/her own experience, to agree or disagree with the writer’s views, to show what he or she thinks about the writer’s language, whether it is appropriate to the writer’s purpose. This skill further demands that the reader be able to make a differentiation of what is factual from the writer’s own opinion, and determining the writer’s opinion from other opinions quoted in the text (Nyawaranda, 2001).

Ellis and Tomlinson (1980) identify a fifth skill, grammatical skill, in which the reader must be able to comprehend structural devices such as those signalling reason,

result and contrast, interpreting cohesive and coherent devices such as anaphora, cataphora and exophora (Nyawaranda, 2001). Anaphora is the use of a linguistic unit such as a pronoun to refer back to another unit, for example the use of *his* to refer to Tom in the sentence, ‘Tom asked Jane to pass him the pen’. Cataphora on the other hand is the use of a linguistics unit to refer ahead to another unit, for example the use of *her* in Close to her, Mary saw a dead snake. Exophora is the use of special words or grammatical markings to make reference to something outside the text but in the context of the utterance of the speaker. Pronouns are also commonly be used to make exophoric reference. Examples are respectively the use of *there* and *those* in the sentences, ‘That book over there is Peter’s and ‘Did Anna water those plants?’ Possibly *there* and *those* refer back to preceding texts or to mention of the book or the plants earlier in the discussion.

All the above reading comprehension skills are subsumed in what the ZIMSEC ‘O’ level English Language (1122) syllabus (1998) refers to as levels of understanding, which are knowledge, comprehension, analysis, synthesis and evaluation.

Summary Skills

Although there are some non-comprehension skills involved in summary writing, such as conciseness, clarity, organization and expression of material in note form,

it may be observed that there are also a number of comprehension skills involved. Ellis and Tomlinson (1980) give these as the identification of what is significant, selection of points relevant to a given task, understanding of grammatical and lexical meaning, awareness of cause and effect, and awareness of time sequence. However, "The immediate aim is to train pupils to extract what is relevant or significant from a given passage ..." (Ellis and Tomlinson (1980 : 219). Bromley (1992) is of the view that summary writing should involve locating the main ideas in a passage. The main idea states the central thought, usually expressed in the topic sentence of a paragraph.

Ellis and Tomlinson (1980) identify another form of summary writing known as *précis*, in which the main skills are reducing the length of a given passage and paragraphing its contents. Although *précis* is seen by some authorities as being related to non-academic reality, we see its strength as lying in its insistence on paraphrasing, which, we feel, tests one's overall understanding of a text, as well as word, phrase and expression of meaning.

The ZIMSEC 'O' level English Language (1122) syllabus (1998) describes the summary skills as involving the identification of topic sentences of paragraphs and texts, expression of ideas in one's own words, and the selection of information and details which are relevant to answering specific questions.

Factors Influencing the Choice of Reading Comprehension Passages/Texts

Ruddell (1997) makes reference to equity in assessment, which should have a bearing on the choice of reading comprehension passages/texts used in the assessment of reading comprehension and summary skills:

Equity has to do with fairness, impartiality, and justice. Assessment means that evaluation procedures are not simply impartial, but fair and just as well – appropriate for all students, regardless of the range of diversity that these students represent. Whatever students' race, gender, abilities, culture, ethnicity, socio-economic status, or language background, no assessment practices or procedures should systematically bias evaluative judgement on any individual or group (Ruddell, 1997:206).

Johnston (1983) also stresses the importance of the nature of the reading comprehension passage when he observes that the performance of an individual in a (comprehension) test will depend on, among other factors, the characteristics of the text and prior knowledge, the reader's socio-economic background and the linguistic level of the text. Ellis and Tomlinson (1980) assert that readers will enjoy reading about their own society, which will enable them to evaluate the attitudes of the writer. Ruddell (1997:254) stresses the importance of text understandability, an aspect of which is the "degree to which the text accounts for reader prior knowledge". Still on reading passage choice, Ellis and Tomlinson (1980) advocate the use of passages of different styles and varieties, for example journalism, advertisements, modern fiction, instructions, narrative, descriptive, expository, arguments and dialogues.

Types of Reading Comprehension Tests/Questions

Spratt in Matthews, Spratt and Dangerfield (1985) identifies subjective and objective types of examining techniques. The former require students to produce longer stretches of responses while the latter usually require the recognition or production of a limited range of items in linguistic and situational contexts which are restricted. Spratt goes on to identify open-ended questions as one of the subjective techniques, which she says have the advantage of providing information about the students' wider commands of communication, but warns that that information may be supplied in a somewhat haphazard way and is thus not always easy to assess in a reliable way.

Objective techniques may come in the form of short-answer items, true/false questions, multiple choice questions, and cloze techniques. Wiersma and Jurs (1990) say short-answer items are an example of constructed-response items which require students to supply their own responses rather than select them. Short-answer items are considered objective in that ideally, there is a single correct answer. Stanley (1964) calls short-answer items free-response items in which the response is provided by the student rather than merely identified from a list of probable answers. Stanley (1964) also observes that free-response items may almost completely eliminate guessing, because the student chooses among the options which they themselves have, but one weakness of this type of questioning is its tendency to measure only highly factual knowledge in the form of isolated bits of information, because questions demanding short answers which are not related are used.

Curzon (1985:276) defines true/false questions simply as those in which "Statements forming the item must be evaluated as either true or false by the candidate". Stanley (1964) calls them alternative response questions and says their advantages are ease of construction, applicability to a wide range of subject matter, objectivity of scoring, and wide sampling of knowledge tested per unit of working time. Johnston (1983) finds fault with true/false questions because in them a chance score is fifty percent and thus one can never know why the reader gave the correct or incorrect response.

Curzon (1985) defines multiple choice questions as those which are made up of a stem and several choices of answers in which one of the options is correct and the others, called the distracters, are incorrect. Stanley (1964) asserts that the multiple choice item is usually regarded as the most valuable and most generally applicable of all test forms, whose superiority lies in its ability to measure reasoning, judgement and discrimination. Johnston (1983:59) describes multiple-choice questions as "the most researched, most maligned, most difficult to construct, most abused, yet most functional of all test items (when properly harnessed)". Although multiple choice questions reduce the chance scores of the true/false questions, Farr and Carey (1986) see their insistence on a single correct answer as a shortcoming too.

Cloze testing is a form of objective testing which requires the examinee to supply words which have been deleted from a text. Farr and Carey (1986) doubt what it is that cloze testing measures and say researchers voice the problem that it seems to measure syntactic competence rather than comprehension.

Spratt in Matthews, Spratt and Dangerfield (1985:148) advocates “a mixture of text types in an attempt to cover the syllabus ...”

Validity

This refers to the degree to which any test or examination measures what it says it measures (Ruddell, 1997; Madsen, 1983). An important aspect of validity is content validity, that is, the extent to which the test is an adequate sample of the syllabus's content (Williams, 1990). Therefore, a reading comprehension examination may be said to have content validity if various reading comprehension skills reflected in the syllabus are examined.

Methodology

This section highlights the techniques employed towards the realization of the purpose of this largely qualitative inquiry. The section covers the sample, how data was collected and interpreted and how the data are presented and discussed.

The study employed two data collection tools, which are document analysis and the semi-structured interview technique.

Document Analysis

In order to gain insights into how reading comprehension and summary skills have been examined by ZIMSEC, we analysed all the ‘O’ Level English Language (1122/2) examination papers sat in both the May/June and October/November sessions from 1997 to 2005. Focus was primarily on the reading comprehension and summary skills examined, the content of the passages used, and the questioning techniques employed.

Interviews

Since by its nature the interview provides access to what is inside a person's head (Tuckman in Cohen and Manion, 1980), we hoped to gain insights into participants' views of, and attitudes towards, how ZIMSEC has been examining reading comprehension and summary skills at ‘O’ level. We also hoped that using the interview tool in conjunction with document analysis would yield more authentic results.

Thirty (30) ‘O’ level English Language teachers who were also markers/assistant examiners for the 1122/2 paper were purposively sampled from schools in Masvingo Province and interviewed once each. These teachers were selected on the strength of their being trained ESL teachers who taught the reading comprehension and summary skills. They were, therefore, interested stakeholders who, by virtue of their being markers/examiners of the paper examining the skills, were well-placed to comment on how these skills have been examined by ZIMSEC.

The Subject Manager of English (‘O’ Level) at ZIMSEC was also interviewed for the purpose of further insights into how ZIMSEC has been examining the skills in question. The interview guide questions for the manager principally solicited for information on the reading comprehension and summary skills examined, passage

choice and candidates' performance in comprehension and summary relative to their performance in composition writing. All this information would be required for the purpose of comparing it with the results from document analysis and from interviews with 'O' level English Language teachers/examiners, in order that, from such triangulation, we might discern emerging themes and patterns.

Data Interpretation Techniques

Because of the bulky nature of the data gathered, it was grouped according to the data collection tools used – document analysis, interviews guide for teachers/assistant examiners, and interview guide for the subject (English) manager at ZIMSEC. The data were then coded, categorised and patterns and themes were identified, with the aid of the research questions. Triangulation of results from document analysis, interview with teachers/markers and interview with the subject manager was done.

Our findings, presented and discussed in the next sections, are in the form of thick narrative descriptions and tables. The thick narrative descriptions enabled us to give as much important detail as possible while the tables were for the purposes of summary and clarity.

Results and Discussion

Results From Document Analysis

All the 'O' level English Language (1122/2) examination papers for the period May/June 1997 – October/November 2005 were analysed and the findings are presented under the following sub-headings: **The Reading Comprehension Skills Examined, The Questioning Techniques Employed, The Summary Skills Examined, and The Texts/Passages Used.**

The Reading Comprehension Skills Examined

Table 1 below shows the reading comprehension skills examined, how many times each skill was examined, the total marks per skill, and the percentage contribution of each skill to the total marks allocated to reading comprehension skills during the period 1997 – 2005.

Table 1: The Reading Comprehension Skills Examined, Frequency, Total Marks Per Skill, and the Percentage Contribution of Each Skill to the Total Reading Comprehension Marks (1997 – 2005).

Reading Comprehension Skill	Frequency	Total Marks Per Skill	Percentage contribution to Total Reading Comprehension Marks

Listening/ Selection	111	146	40,6
Inferential/ Reasoning	47	53	14,7
Lexical/ Contextual	135	156	43,3
Grammatical	4	4	1,1
Evaluation	1	1	0,3
Total	298	360	100

The table shows that contextual/lexical/word and phrase meaning skills were examined the highest number of times (135) and contributed the highest number of marks (156), which constitutes 43,3 of the total marks allocated to reading comprehension skills from May/June 1997 to October/November 2005. Literal comprehension skills were examined the second highest number of times (111) and contributed the second highest number of marks (146), contributing 40,6% of the marks. Inferential skills come third, having been examined 47 times, contributing 53 marks, 14,7% of the total comprehension marks. Next come grammatical skills, which were examined only 4 times and contributing only 4 marks (1,1%) of the total comprehension marks. Evaluation skills were examined the least number of times (only once), contributing only one mark (0,3% of the total comprehension marks).

The Questioning Techniques Employed

Our analysis of the relevant question papers revealed that all the comprehension question items were short-answer items (Wiersma and Jurs, 1990) or free-response items (Stanely, 1964). About 111 of these were 'WH' questions and those requiring candidates to 'identify', 'state', 'quote', 'give' and 'find'. Virtually all these examined literal skills. About 135 of the question items were of the 'Give the meaning of' and 'Paraphrase' type. These examined lexical/contextual skills. About 47 question items required candidates to 'explain', (state) 'how' and 'suggest'. These examined inferential/reasoning skills. Table 2 below summarises the frequency of the different types of comprehension questions in the ZIMSEC (1122/2) question papers in the period under review:

Table 2: The Frequency of Different Types of Comprehension Questions in the ZIMSEC 1122/2 Question Papers (1997 – 2005)

'WH', 'identify', 'state', 'give' and 'find' type	'Give meaning of' 'Paraphrase Type'	'Explain', 'How' and 'Suggest' Type
111	135	47

The Summary Skills Examined

Our analysis of the summary questions revealed that summary skills contributed 50% of the total marks allocated to reading comprehension and summary. This indicates lack of equity in the 1122/2 paper, considering that summary skills are, in essence, literal comprehension skills, which actually contributed a staggering 40,6% of the total marks allocated to reading comprehension from 1997 to 2005 (See Table 1).

Table 3 below shows the summary skills examined from June 1997 to November 2005.

Table 3: The Summary Skills Examined

Examination Session	Summary Skill Examined
May/June 1997	Identifying the relevant: author's feelings, decisions and reasons.
October/November 1997	Identifying the relevant: author's plans, problems and solutions
May/June 1998	Identifying the relevant: author's plans, problems and solutions
October/November 1998	Identifying the relevant: author's plans, actions and reactions.
May/June 1999	Identifying the relevant, author's difficulties, fears and actions.
October/November 1999	Identifying the relevant: a character's feelings, actions and thoughts.
May/June 2000	Identifying the relevant: advantages and disadvantages.
October/November 2000	Identifying the relevant: difficulties and solutions.

May/June 2001	Identifying the relevant: actions.
October/November 2001	Identifying the relevant: thoughts and actions.
May/June 2002	Identifying the relevant: sources and uses (of salt).
October/November 2002	Identifying the relevant: actions and feelings.
May/June 2003	Identifying the relevant: what the writer saw and his reactions.
October/November 2003	Identifying the relevant: a character's actions.
May/June 2004	Identifying the relevant: the usefulness of desert plants.
October/November 2004	Identifying the relevant: how a character has changed.
May/June 2005	Identifying the relevant: a character's actions.
October/November 2005	Identifying the relevant: a character's actions (on pups) and the pup's reactions

The table shows that all the summary questions set predictably required candidates to identify relevant information from the texts/passages, such as problems faced by characters and how they overcame them, and characters' actions, feelings and thoughts. Other skills reflected in the 1122 syllabus were not examined. These include the identification of main ideas of paragraphs and texts, and paraphrasing. On a positive note, we found the October 2000 summary question commendably different from the others in that, for once, candidates were asked to 'Imagine you are the writer'.

The Texts/Passages Used

Results from our analysis of the 18 texts/passages from which the reading comprehension and summary questions were set indicate that all the passages were in prose. Neither poetry nor drama genres were used. Also, no charts, graphs and diagrams were used, despite the fact that the syllabus clearly stipulates that teachers should use them in developing reading comprehension and summary skills.

Of the 18 passages, the majority, 12, were of the narrative-descriptive type, 3 were purely narrative and 3 were descriptive-expository. None were discursive.

As for the content and contexts of the passages, these are summarized in Table 4 below:

Table 4: The Content and Contexts of the Passages Used by ZIMSEC to Examine Reading Comprehension and Summary Skills

Examination Session	Brief Description of Passage Content and Context
May/June 1997	Author's experiences with an elephant in Burma.
October/November 1997	Author's preparations for sailing in the Amazon River.
May/June 1998	Author's expedition in East Africa.
October/November 1998	Ospreys (birds) in Scotland.
May/June 1999	Rescuing a child from the Torrens River (Australia)
October/November 1999	Trapped in Quicksand in Morecambe Bay (England).
May/June 2000	Electric cars in Nepal, the U.S.A. and Kathmandu.
May/June 2001	Author's experiences with snakes of Africa.
October/November 2001	The experience of a character who has fallen into a gorge.
May/June 2002	Salt (in general)
October/November 2002	Climbers scaling the Nun Kun Mountain.
May/June 2003	Author's experiences during and after a hurricane in the West Indies.
October/November 2003	Author watching matadors perform.
May/June 2004	Desert vegetation.

October/November 2004	Author mourning for an AIDS – afflicted friend (South Africa).
May/June 2005	A character's experiences with robbers in a scrap yard.
October/November 2005	Wolves.

Our analysis of the texts/passages revealed that a few of them had generally familiar content and contexts to most Zimbabwean candidates. These were those set for June 1998 (Author's expedition in East Africa), June 1999 (Rescuing a child from a river), October 2000 (Blind boy teaches himself to ride a bicycle), June 2001 (Author's experiences with snakes of Africa), June 2002 (Salt), June 2003 (Author's experiences during and after a hurricane/tropical storm), and November 2004 (Author mourns an AIDS-afflicted friend). It is our submission that candidates could easily identify with these passages because they contained very few, if any, alien concepts. The passages were, therefore, easily accessible and hence interesting to read.

However, we found out that the rest of the passages, the majority, were generally of alien content and settings and were therefore abstract. In the June 1997 passage, though the idea of an elephant and its potentially destructive tendency offered fairly familiar reading, it is our contention that the majority of Zimbabwean candidates may not have had experiences with elephants, let alone seen them, since these animals are mostly confined to game reserves and national parks. The Burma setting compounded the situation, as it resulted in unfamiliar concepts such as 'mahout' (elephant trainer/keeper), 'bamboo huts', 'paddy fields' and 'working elephant'.

The October/November 1997 passage (Author's preparations for sailing in the Amazon River) generally had alien content in that very few rivers, if any, are navigable in Zimbabwe. Most candidates, therefore, may have found the following terms, among others, to be unfamiliar: 'canoe trip' 'cargo boats', 'ocean conditions', 'titanic forces', 'whirlpools', 'raging sea', and 'turtles'.

Reading about rare birds called ospreys (October/November 1998), may have undoubtedly impeded understanding in that these birds, confined to the isolated highlands of Scotland, were a strange phenomenon to candidates, who may not have heard about them, let alone seen them. The 'bay' or 'beach' setting in the October/November 1999 passage, with its abstract quicksand phenomenon or 'pudding of cold and oozing jelly' or 'porridge-like sediment' was obviously not accessible to most candidates who obviously have not been to the beach.

The concept of electric cars (May/June 2000) could have been difficult to fathom for the candidates since this is not only a recent but also a rare phenomenon.

The gorge setting (October/November 2001) may also have presented abstract reading to many candidates, especially those born and bred in towns and cities. The same applies to the October/November 2002 passage in which mountain

climbing is the central theme.

The November 2003 passage, whose central theme is a sport called bull-fighting, obviously made abstract reading. Bull-fighting, in which a 'matador' takes centre stage, is an alien sport to Zimbabwe.

While some desert vegetation (June 2004) exists in Zimbabwe, it is not widespread so this passage could safely be described as being of foreign content, given the prevalence of abstract terms such as 'cactus', 'cereus', 'saguaro', 'mesquite' 'creosote' and 'century plant'.

While the scrapyard setting (May/June 2005) may have been familiar to urban-dwelling candidates, most rural candidates may have found it unfamiliar.

Finally, the wolf (November 2005) is not a common animal species in Zimbabwe, so this passage could have been of abstract content to candidates.

Results From Interviews

All the thirty 'O' level English Language teachers/examiners interviewed viewed all the reading comprehension skills as being important but twenty four (80%) thought the skills are not of equal importance at 'O' Level, citing inferential skills as the most important, followed by evaluation, then contextual skills. One participant said,

"While I see all the skills as important, they obviously can't be of equal importance at 'O' Level. Making inferences and evaluating are higher order skills which, at secondary school level, should be given precedence over simple, recall skills which should feature prominently at Grade Seven level".

ZIMSEC, on the other hand, seems to regard contextual skills as the most important, followed by literal skills (Table 2). All the thirty 'O' Level English Language teachers/examiners confirmed that ZIMSEC tended to put more emphasis on the examination of contextual and literal skills at the expense of other skills, notably evaluation and grammatical skills.

Only four (13,3%) of the teachers/examiners interviewed thought the passages used to examine the skills were generally sensitive to most Zimbabwean candidates' socio-cultural experiences, while twenty six (86,7%) thought the passages were largely not sensitive, which rendered them abstract and therefore difficult. This agrees with our analysis (Table 4). One teacher made the following observation:

"Reading about mountain climbing, quicksand, electric cars, matadors, wolves and birds with strange names is unfair to candidates! Remember in the nineties Cambridge (U.C.L.E.S) set a paper based on a passage

about strange birds called pterodactyls – now we have a passage on ospreys (October 1998). Don't we have passages on local birds?"

Three (10%) of the teachers/examiners interviewed observed that the passages used were generally narrative, while twenty (66,7%) saw them as descriptive-narrative. We, too, found most of the passages to be descriptive – narrative.

All the thirty 'O' level English Language teachers/examiners aptly observed that the summary questions always examined the identification of relevant information (Table 3), a task described as "too easy". The teachers/examiners also overwhelmingly thought candidates should answer the summary question in their own words, so as to further show how much they would have understood the passage.

Twenty five of the teachers/examiners (83,3%) were of the view that ZIMSEC's predecessor, the University of Cambridge Local Examinations Syndicate (U.C.L.E.S.) focused more on inferential/reasoning skills, and therefore made the reading comprehension papers more challenging. The remaining five teachers/examiners (16,7%) professed ignorance about how U.C.L.E.S. examined the reading comprehension skills.

Three of the teachers/examiners interviewed (10%) said they were never influenced in their teaching of reading comprehension skills by the way the skills have been examined. Six (20%) said they were only influenced towards the final examination period, while twenty one (70%) said they were influenced throughout their teaching, especially in focusing primarily on contextual and literal skills, use of descriptive – narrative passages with alien content, and focusing on identification of relevant points in the teaching of summary writing. One teacher/examiner had this to say:

"The way the skills have been examined has had a profound effect on my teaching of the skills. I virtually never bother about evaluation and grammatical skills because they are rarely examined. I also use prose passages – especially narrative ones – as these dominate the question papers. Why waste my time with poetry and drama which are never used when the skills are examined? Another thing is my teaching of summary skills. I focus on selection of relevant facts to a given task. I never ask my pupils to use their own words. They can pass even if they extract the exact words from the passage".

The teachers/examiners recommended that ZIMSEC should examine all the

reading comprehension and summary skills, use a variety of passages, preferably those with Zimbabwean or at least African settings, and stop using line guidelines in questions as they prevented holistic understanding of passages. The teachers/examiners also recommended that candidates be asked to write summary answers in their own words.

Like the 'O' level English Language teachers/examiners interviewed, the Subject (English) Manager at ZIMSEC conceded that all the reading comprehension skills listed in the syllabus are important and worthy of being examined. He went on to assert that these skills are always considered during item writing, and that it is a must to have the syllabus when setting papers. His pronouncements, however, differ with our own observation and the observations of teachers/examiners interviewed – that there is emphasis on contextual and literal skills, while evaluation and grammatical skills are given scanty, if any, attention.

Although the teachers/examiners interviewed agreed with our own observation that most of the passages used to examine the skills had unfamiliar/alien content and contexts (Table 4), curiously, the Subject Manager argued that it is ZIMSEC's requirement that the passages have familiar content; material which candidates should be able to relate to/understand.

The Subject Manager also revealed that passages should contain at least fifteen points for the summary question, a requirement which, perhaps, can be easily met by making use of prose passages? Perhaps this explains why only prose passages were preferred to poetry and drama.

On candidates' performance in comprehension and summary relative to their performance in composition writing, the Subject Manager said this varied from year to year. It is our contention that given the proliferation of questions examining literal skills, and the predictability of the summary questions (always testing ability to identify relevant points), candidates should have done invariably better in comprehension and summary than in composition writing. Perhaps it was the alien/unfamiliar (hence abstract) nature of the passages used that made candidates sometimes do better in composition writing, where candidates have to pay more attention to punctuation, spelling, grammar and word choice, among other considerations.

The Subject Manager further revealed that there has not been much change from the way the reading comprehension skills were examined by the University of Cambridge Local Examinations Syndicate (U.C.L.E.S). Perhaps this is true as far as the format and the use of passages with alien content is concerned. In terms of the level of difficulty of the questions, however, it is our submission and the observation of the teachers/examiners interviewed, that the questions set by U.C.L.E.S. were more challenging.

Conclusion and Recommendations

This study has established that by giving prominence to contextual and literal skills (to the virtual exclusion of evaluation and grammatical skills), and the summary skills of identifying relevant information (to the exclusion of other summary skills such as paraphrasing and identifying main ideas), the comprehension and summary section of the ZIMSEC 1122/2 papers lacked content validity (Williams, 1990).

The inquiry has also found out that the reading comprehension skills have been examined exclusively through free-response items (Stanley, 1964) or short-answer items (Wiersma and Jursm 1990). It has also emerged that all the passages from which the comprehension questions were based were in prose. Though some of the passages had familiar content, the majority of them had alien content to most candidates. The study has further established that candidates' performance in comprehension and summary vis-à-vis their performance in composition writing varies from year to year. The study has also discovered that 'O' Level English Language teachers/examiners in Zimbabwe feel that ZIMSEC should improve on the way it has examined reading comprehension and summary. The research has also established the way ZIMSEC has examined these aspects has had a backwash effect on 'O' Level English Language teaching in Zimbabwe. In light of our research findings, we make the following recommendations to ZIMSEC and to 'O' level English Language teachers in Zimbabwe.

Recommendations to ZIMSEC

While ZIMSEC should be commended for reflecting all the five major reading comprehension skills in its 'O' level English Language (1122) syllabus, the board could ensure that all these skills are adequately represented in the 1122/2 examination papers, thereby improving the papers' content validity. Also, it is our view that, rather than give undue prominence to contextual and literal skills, there should be an increase in the number of questions examining inferential/interpretive/reasoning skills, as these encourage independent thinking. Cramer (1978) rightly advises that explicit/literal comprehension should not be emphasised out of proportion to its total contribution to the whole reading comprehension process.

ZIMSEC could also make the summary question less predictable and more challenging by examining the skills of identifying main ideas of paragraphs, and paraphrasing. Furthermore, it is our considered opinion that the marks allocated to summary, twenty, are too many, since summary skills are primarily selection and hence literal skills, which are largely catered for in the short-answer comprehension questions.

Furthermore, ZIMSEC has to be commended for at least using some passages with familiar content, passages which candidates can easily relate to. While it has to be admitted that reading about foreign experiences may broaden candidates' minds, we feel that passages with alien content should be used sparingly. ZIMSEC could, therefore, use more passages on which candidates have "prior knowledge" (Johnston, 1983:20). Ellis and Tomlinson (1980) rightly assert that reading should be ideally about one's own society. ZIMSEC could also use passages of varied styles and types, rather than rely on narrative and narrative-descriptive prose passages only, at the expense of poetry, drama, arguments, letters and others.

We also feel that the reading comprehension skills could be examined through a mixture of short-answer items and what Spratt in Matthews, Spratt and Dangerfield (1985) calls open-ended comprehension questions, which provide information about candidates' wider command of communication. Even the short-answer items should, as we see it, be varied, not just free-response (Stanley, 1964). True/False items (Curzon, 1985), multiple choice (Stanley, 1964) and cloze testing (Farr and

Carey, 1986) could also be introduced. Although they have limitations, they are not without their strengths.

Recommendations to 'O' Level English Language Teachers in Zimbabwe

In our view, teachers should not be unduly influenced, in their teaching of reading comprehension and summary, by the way ZIMSEC has examined the skills. Learning has to be undertaken partly for its intrinsic value, not solely for examination purposes. Although ZIMSEC has been focusing more on examining contextual and literal skills (and to some extent inferential skills), teachers should develop in pupils all the skills reflected in the syllabus, including grammatical and evaluation skills.

Furthermore, despite the fact that ZIMSEC has been basing the examination of reading and summary on prose, mainly in form of descriptive-narrative passages, teachers could make the teaching of these skills more interesting by making use of poetry, drama, discussions, instructions, advertisements and diagrams. In addition, pupils' interest in and understanding of reading comprehension passages could be enhanced if teachers selected those passages that reflect pupils' own societies (Ellis and Tomlinson, 1980; Johnston, 1983; Ruddell, 1997). Finally, we suggest that teachers should develop all the summary skills in pupils, despite the fact that ZIMSEC has been concentrating on the summary skill of identifying relevant information. The skills of identifying main ideas, paraphrasing, and even reducing a passage in length (precis according to Ellis and Tomlinson, 1980) are also important.

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APPENDIX A: INTERVIEW GUIDE QUESTIONS

- I) INTERVIEW GUIDE QUESTIONS FOR 'O' LEVEL ENGLISH LANGUAGE TEACHERS/EXAMINERS.
 - (a) May you please tell me about the reading comprehension skills which you know of.
 - (b) Do you think all these reading comprehension skills should be examined at 'O' level? Please explain.
 - (c) Has ZIMSEC been examining all these skills since its inception? If not, which ones do you see as having been given prominence? Are you happy with this? Why?
 - (d) Do you feel that the passages/texts that were used to examine the skills were sensitive to Zimbabwean candidates' socio-cultural backgrounds? Please explain.
 - (e) The current 'O' level English Language (1122) syllabus recommends a variety of passages for use in the teaching of reading comprehension skills. Were the passages/texts used to examine the skills from 1997 to 2005 varied as well? In what ways?
 - (f) Which summary skills do you see as having been examined from 1997 to 2005? Are you satisfied with this?
 - (g) Do you see any change in the way the reading comprehension and summary skills were being examined by the University of Cambridge Local Examinations

Syndicate? Please explain.

- (h) Has the way ZIMSEC has been examining reading comprehension and summary influenced your teaching of these aspects? Please explain.
- (i) How may ZIMSEC improve in its examination of reading comprehension and summary?
- (j) Any other comments you might want to make on the way ZIMSEC has examined reading comprehension and summary?

II) INTERVIEW GUIDE QUESTIONS FOR THE SUBJECT (ENGLISH) MANAGER AT ZIMSEC

- (a) Do you consider all the reading comprehension and summary skills listed in the current 'O' level English Language (1122) syllabus to be important and worthy of being examined at 'O' level? If so, is it your policy that all the skills be equitably represented in 1122/2 examination papers every year/session?
- (b) Do those who set the papers consult the syllabus?
- (c) What factors are considered in choosing the passages/texts used in examining reading comprehension and summary?
- (d) How would you rate the candidates performance in reading comprehension and summary vis-à-vis their performance in composition writing?
- (e) Has ZIMSEC changed from the way reading comprehension and summary were examined by the University of Cambridge Local Examinations Syndicate (U.C.L.E.S)? Please explain.
- (f) Any other comments you would like to make on the way ZIMSEC has been examining reading comprehension and summary at 'O' level?

APPENDIX B: A SAMPLE OF THE ZIMSEC 'O' LEVEL ENGLISH LANGUAGE (1122/2) EXAMINATION PAPERS (COMPREHENSION AND SUMMARY SECTIONS)

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

ENGLISH LANGUAGE 1122/2

PAPER 2

Monday **3 NOVEMBER 2003** Afternoon 2 hours

Additional materials:

Answer paper

Section A (40 marks)

Read the following passage very carefully before you attempt any questions.

Answer **all** the questions. You are advised to answer them in the order set.

Mistakes in spelling, punctuation and grammar may be penalised in any part of the paper.

The Bull Ring

In this passage, the author is one of the spectators watching various matadors perform. A matador is a man whose task is to fight and kill the bull in the sport of bull-fighting.

- 1 Before us lay the classic scene: the ring of sand, the crescent of sunlight, the circle of spectators, and the two motionless antagonists below us – the bull-fighter with a bowed head, standing in silence – and coughing in the dust, a young dying bull.
- 2 It was the second bull to die that afternoon. It seemed to have been killed with some skill, for as the boy stood there with his blood-stained sword, he received no groans or 5 hisses. A quarter of horses dragged away the body, the sand was raked smooth, and we awaited the entry of the next. This is one of the great dramatic moments of every encounter; the fighters take up their positions, the hushed crowd waits, then the huge doors to the bull-pit are thrown open and the unknown beast charges forth, fresh in anger, into the ring.
- 3 The trumpet for our third bull was duly sounded. The doors were thrown open, the attendant scampered for safety, and we all waited; but nothing happened at all. The attendant crept back and peered cautiously round the corner of the open doorway.

He whistled and waved his cap. Then, gaining courage, he began to leap up and down at the centre of the bull-pit, hooting and capering like a clown. Minutes passed, and 15 still nothing happened. Slowly, at last, and sadly, lost as a young calf, the bull walked into the ring. He looked with bewilderment around him, turned back, found the doors shut and began to graze in the sand. He had no conception of what was expected of him, nor any inborn anger. All he wished was to be back in the brown pastures and to have no part in this. And when it came to the point, he put up no fight at all and was 20 killed without grace or honour, to the loud derision of the crowd.

- 4 A superb, straight-limbed young man now stepped forward into the ring and a cheer went up, for he had already earned some reputation. He was not dressed like the professional matador, but in riding clothes – a broad hat, short waistcoat, tight-fitting trousers and high-heeled boots. With the hat held to his breast, he faced 25 the President's box, bowed, raised his head and in ringing eloquent tones, dedicated the next bull to one of the maidens, whose name was Gloria. Her companions congratulated her noisily, while she, huge-eyed and delicate as a doll, waved a small hand, and then turned as pale as death.

- 5 The President leaned forward and gave the signal. The trumpet sounded and the door 30 opened for the fourth bull. He came in like thunder, snorting and kicking up the dust.

His black coat shone like a seal's, and his horned head was lowered for immediate attack. Two assistant, trailing long, red capes, ran out and played him first. It was a formal prologue designed to discover the unknown temper of the bull, his way of charging, and which horn he liked using. Slowly, their job done, they were driven 35 back towards the barriers, and the bull stood alone. Then Gloria's, champion walked out across the sand.

- 6 He took up his stand and the bull focused his attention on him. The matador gave a loud clear shout to the bull, and from that moment we witnessed an almost faultless combat. A wave of adulation swept over the crowd. In response the boy reacted 40 with cold courage and movements of continual beauty. In the meantime, the pitch of the bull's fury increased, but the boy entirely dominated him. He turned the fury of the beast into a creative force which he alone controlled.

- 7 The bull charged and charged again, loud-nostrilled and sweating for death. The boy turned and teased him at will. No other matador had shown the crowd such skills 45 before. The crowd reacted with thunderous applause. Eventually, the boy reduced him to a kind of enchanted helplessness. The sheer beauty of the combat was breathtaking. The bull now stood, hypnotised and unable to move, while the young man kissed his horns.

- 8 Alone in the ring, unarmed with the armed beast, he had proved himself the stronger. 50 He never ran, he scarcely moved his feet, but he turned his cap like liquid fire, and the bull, snorting with mysterious amazement, seemed to charge at him against his will. Each moment he did so, the boy neatly planted a short barbed lance into the bull's shoulders. After the lances had been thrust into the bull's shoulders, the moment for the kill arrived, and it was accomplished with almost tragic simplicity 55 and grace. The boy stood, sword in hand, facing the panting bull. They stood at close range, eyeing each other in silence. The bull lowered its head, and the crowd roared, "Now!" The boy raised the sword slowly to his eyes, then he leaned forward and plunged the weapon to the hilt in the bull's black heaving shoulders.

- 9 Such a moment, the climax of the game, carried with it mortal danger for the 60 matador. His undefended body, poised thus above the horns, is so vulnerable that a flick of the bull's head could disembowel him. But the boy's sword had found its mark, and the bull folded his legs, lay down for a moment as though resting at pasture, then slowly rolled over and died.

- 10 The rest of the afternoon was a sorry sight, an anti-climax. The fifth bull would 65 not fight, and just wandered miserably round the ring looking for a way out. He retreated when challenged and leaned sickly against the barriers when wounded, the sixth and last was a fine animal, but he had a wretched opponent whom he treated with contempt. After a few passes during which the matador lost his head, the bull turned irritably upon him, tossed him several metres

across the ring, split his thigh, and trampled upon him. A volunteer took his place for the kill, bungled it, and was booed from the ring. Finally, the bull was dispatched by the attendant's dagger.

- 11 Meanwhile, the hero of the afternoon was called to the President's box to meet the guests of honour. We saw him standing on one leg drinking sherry with Gloria, whose great eyes promised more dangers than any bull.

Adapted from "A Rose for Winter", by Laurie Lee.

Answer **all** questions.

You are recommended to answer them in the order set.

From Paragraph 1

- 1 (a) Write **one** word from paragraph 1 which has the same meaning as 'opponents'.
[1]

From Paragraph 2

- (b) (i) What evidence is there which tells you that the second bull was killed by a skilful matador?
[1]
- (ii) What does the word 'quartet' (line 6) tell you about the number of horses which dragged away the bull's body?
[1]

From Paragraph 3

- (c) (i) "... nothing happened at all". (line 12)
Explain what they all expected to take place.
[1]
- (ii) According to the paragraph, what **two** qualities should a good fighting bull have?
[2]
- (iii) "... to the loud derision of the crowd". (line 21) What does this phrase tell you about the crowd's attitude to the bull?
[1]

From Paragraph 4

- (d) (i) Explain in your **own words** why the young man was wildly cheered.
[1]

- (ii) Suggest **one** reason why Gloria “went pale as death”.
[1]

From Paragraphs 3 and 5

- (e) Compare the way the third and fourth bulls entered the ring.
[1]

Total [10]

From Paragraph 6

- 2 (a) The boy “entirely dominated him”. (line 42) Explain this statement
in your **own words**.
[1]

From Paragraph 8

- (b) Why did the bull lower his head?
[1]

From Paragraph 9

- (c) The boy was ‘vulnerable’ (line 61) when his undefended body was poisoned above the bull’s horns. Explain in your **own words** what could possibly have resulted from that position. [2]

From Paragraph 10

- (d) The fifth bull was a disappointment because he would not fight. What other reason made the afternoon an anti-climax? [1]
- (e) Choose five of the following words or phrases and for each of them give one word or a short phrase (of not more than seven words) which has the same meaning as the word used in the passage.

- | | | |
|------------------------|---------------------------------|-----|
| 1 hushed (line 8) | 5 enchanted (line 47) | |
| 2 conception (line 18) | 6 lost his head (lines 69 – 70) | |
| 3 eloquent (line 26) | 7 bungled (line 72) | |
| 4 designed (line 34) | 8 dispatched (line 72) | [5] |

Total [10]

- 3 The highlight of the day, for the writer, was watching an encounter between a skilled matador and an angry bull. Write a summary of the matador’s actions from the moment he enters the ring, up to the time he kills the bull.

Use only the material from paragraphs 4 to 8.

Your summary, which should be in continuous writing, must not exceed 160 words, including the 10 words provided below.

Begin your answer as follows:

The boy faced the President's box, bowed, raised his head ... Total [20]

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL
General Certificate of Education Ordinary Level

ENGLISH LANGUAGE

1122/2

PAPER 2

Friday 4 JUNE 2004 Afternoon 2 hours

Additional materials:

Answer paper

Section A (40 marks)

Read the following passage very carefully before you attempt any questions.

Answer **all** the questions. You are advised to answer them in the order set.

Mistakes in spelling, punctuation and grammar may be penalised in any part of the paper.

1 Every living thing under the sun is indebted to the sun for the gift of life, but to every living thing in the desert, this course of life poses an ever-present threat of death. To survive the ordeal of pitiless heat and aridity, all plant life must escape in time of drought into some form of partial or complete dormancy. The trees and shrubs are mostly leafless and gaunt and what foliage they keep is dull and parchment-dry.

The flowering annuals have vanished in dust. Even the water-storing succulents like the cacti seem shrivelled.

2 But the miracle of rainfall transfigures the melancholy scene almost overnight. Leaves pop out of naked twigs. Flower buds swell among the spines and thorns. The bare ground is quickly carpeted with shoots and green blades, pushing through the soaked ground from the long-hidden bulbs and seeds. For a few glorious weeks the desert is the loveliest of Edens. Then in the golden sunlight that brought them forth, the fruits and seeds fall, the leaves begin to wither, and little by little, all the exuberant bloom fades away again to its former dormancy.

3 Every plant, save those in the favoured environments of oases and streamways, must adjust this boom-and-bust regime in which drought is the usual rule

and rain the exception. The plant must find some reliable system for getting through the dry season, and it must be able to take immediate advantage of water, when the rains do come, to ensure its growth and reproduction. It is surprising, not that there are so few plant species adapted to this harsh desert existence, but that there are any.

- 4 Another notable thing about desert vegetation is its diversity in form and type. In climates more favourable for plant growth there is keen competition for space;

dominance by some plants and the elimination by shading out of others. In the desert, the primary struggle of the plants is for water, rather than for space and light as in the forest. There is very little of the "layering" of plant types that typifies the tropical rain forest; and there is little plant debris on the ground to help pave the way for successional changes in the plant community. When a forest is destroyed by cutting or burning, new light-loving species, animals, bushes and low trees spring up, and it may take decades for the forest to regain its original appearance. If a desert-plant community is wiped out, the first plants that spring up are almost invariably the very same species that have been destroyed.

- 5 Desert plants fall into two categories according to the way they deal with the problems of surviving drought. There are drought evaders – those which persist only as seeds, ready to spring up when it rains, to flower quickly and produce another crop of seeds, and to die again. There are also the drought resisters, which are perennials and manage to live from one rainy season to another, slowly growing bigger and bigger. Of these year-rounders, the succulents are a small but interesting fraction. They may store water in their leaves, like the century plant; in their stems, like the cactus; or in underground containers like the night-blooming cereus.
- 6 In the American deserts, the best known succulents are the cacti. They come in a range of sizes and types and can be unusual and useful beyond belief. They take cylindrical or even spherical forms, thereby exposing a minimum of evaporating surface to air and light. Local people have mashed up the trunks of some cacti for liquids in times of drought. To those knowledgeable, the juice from the cacti fruit has been a foundation for an alcoholic drink when fermented. The cacti tend to have spiny surfaces, discouraging thirsty animals, but these spines are so tough and sharp that they have been used as fish hooks. They are leafless except in youth and fluted like an accordion, so the fleshy stem may expand quickly when the plant drinks and contract slowly as it uses up the water. The root system is widespread and shallow, for good reason; only about three percent of the rain that falls in the desert penetrates to any significant depth into the soil.
- 7 In the case of saguaro cactus, skyscraper of the desert flora, the radius of the root system often equals the height of the plant. After a downpour, the roots, mostly only a few centimeters deep, soak up moisture with admirable efficiency, transporting hundreds of litres to the saguaro's stem. Notoriously slow-growing, the price it must pay for that economy of surface, a saguaro may

be twenty to fifty years old when only a metre high.

- 8 In past years, the saguaro constituted a symbol of plenty for desert Indians like the Papagos and Pimas. These have had to adapt, like the plants, to the environments, in order to survive. They ate its fruit, which has a red pulp resembling that of a watermelon when fresh and which can also be preserved in a syrupy form for many months. When ground, the seeds made a kind of butter. The sheer size of the saguaro proved an advantage as the giant stems made lodge poles for Indian dwellings and its usefulness outlived its life span, as even in death, its dried remains were a source of fuel. Among the thousand-odd other smaller members of the cacti family are many with bizarre shapes and reputations. The stout unbranched barrel cactus is a legendary water source for parched travellers. The squat-branched hedgehog cactus, on the other hand, produces a delicious easily-picked strawberry-red fruit.
- 9 Among desert trees is the mesquite. The mesquite dwells in the sandy washes of American deserts and has roots that bore as deep as thirty metres to reach water percolating down from the mountains. This tree is a great stabilizer of sand dunes. Instead of being smothered by the drifts that pile up around it, it sends out multiple shoots that emerge above the dune. The branches that show, support the foliage, but great limbs are buried in the sand. In northern Mexico and from southern Texas to Arizona, woodcutters yank out these buried limbs, and a single dune may yield half a truckload of mesquite, one of the world's densest and finest firewoods.
- 10 Another desert plant is the creosote bush which is a wispy shrubby with scraggly branches. Its usefulness, beyond relieving the monotony of the desert surface and providing perches, shade and food for a few desert animals, is in tying down desert soil from eroding water and wind. The sand hammocks thus formed, are used as home-building sites by numerous desert animals such as ground-squirrels, kangaroo-rats, lizards, snakes and toads. Despite its name, it is not the source of creosote, a chemical which is extracted from the wood tar of forest trees.
- 11 The pollination of desert plants and flowers calls for an abundance of insects of many kinds. The abundance is guaranteed by the fact that the same rain which induces the flowers to grow causes the insects to emerge from their cocoons, pupae and other dormant stages. This timing is vital not only to the fertilization of the flowers but also to the nutrition of insectivorous animals which rear their young during or after the rainy season, be it spring or summer.

Adapted from: "The Desert" by A Starker Leopold and the Editors of Time-Life Books. Second Edition, 1961.

Answer **all** the questions.

You are recommended to answer them in the order set.

From Paragraph 1

- 1 (a) (i) In what **two** different ways does the sun affect every living thing?

Number your answers (i) and (ii) [1]

(ii) Give the **two** ways plants use to survive the desert heat.

Number your answers (i) and (ii). [1]

From Paragraph 2

(b) Give **one** word from this paragraph which supports the fact that rainfall brings about change. [1]

From Paragraph 3

(c) (i) Where can plants be found throughout the year in the desert? [1]

(ii) What makes this possible? [1]

From Paragraph 4

2 (a) In **your own words** explain **two** disadvantages faced by plants which grow in climates favourable for plant growth. [4]

From Paragraph 5

(b) What in your opinion is the main difference between the drought evaders and the drought resisters?

Number your answers separately (i) and (ii). [2]

From Paragraph 6

(c) Using **your own words**, explain why the surface of the cactus are “fluted like an accordion” (line 48 – 49). [2]

From Paragraph 7

(d) (i) Why is the saguaro called “skyscraper of the desert flora” (line 53)? [1]

(ii) For what reason is the root system of the saguaro spread out? [1]

From The Whole Passage

(e) Choose five of the following words or phrases. For each of them give one word or a short phrase (of not more than seven words) which has the same meaning that the word or phrase has in the passage.

- | | | | | |
|---|---------------------|---|---------------------|-----|
| 1 | shrivelled (line 7) | 5 | wiped out (line 30) | |
| 2 | exuberant (line 13) | 6 | admirable (line 55) | |
| 3 | reliable (line 17) | 7 | bizarre (line 67) | |
| 4 | diversity (line 21) | 8 | induces (line 88) | [5] |
- 3 The passage shows how man and a large variety of animals learnt to adapt to the arid desert environment through use of whatever plant life that exists. Write a summary on how desert plants have been found useful by both man and animals.

USE ONLY THE MATERIAL FROM PARAGRAPH 6 TO 11.

Your summary, which should be in continuous writing, must not be more than **160** words, including the **10** words given below.

Begin your summary as follows:

Over the years, desert inhabitants have found use for different ... [20]

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