Readability: Assessing the Complexity and Comprehensibility of Written Materials

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ABSTRACT

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This study addresses the question: do two empirical measures of francophone high school students' comprehension of eight English prose passages provide the same information about the relative comprehensibility of these passages as do sixteen popular readability formulas? To answer this question, the author designed an experiment in which random combinations of three versions of two tests over eight short prose passages were administered to students in a French high school. The passages were drawn from a graded reading series and their readability indices calculated using sixteen well-known formulas. The two testing methods chosen for the experiment were the cloze procedure, an established readability measure, and the intrusive word procedure, a little known technique whose experimental validity the author wished to investigate. Subjects' average scores on

both tests and formula ratings of the passages were correlated. The resulting data is presented in a series of tables.

The formulas agreed closely with one another in their ratings of the passages (rho: .625; r: .731, with most coefficients in the eighties and nineties). In general, the reliability of the empirical measures was supported by the inter-form correlations (the values of r and rho varied between .446 and .816). Strong agreement was noted between formula predictions and empirical assessments of passage readability. The author cites three formulas as particularly good predictors of text comprehensibility as gauged by the empirical measures and proposed that these instruments be adjusted to yield ratings which correspond to scores on standardized ESL proficiency tests.

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INTRODUCTION

1.1. Preamble

The importance of adapting one's speech to suit one's interlocutor has always been recognized. Every experienced orator, or author, knows how fatal it can be to communicate in language which is above or below his audience's level of understanding. Thus, over the centuries, man has instinctively modified the listenability, or readability, of discourse. Only recently, however, has any systematic attempt been made to measure and control the readability of texts. Most of the modern research into readability measurement has followed one of two directions, leading to the development of readability formulas (regression equations) on the one hand, and empirical methods, such as the cloze and intrusive word procedures, on the other. The goal of the present investigation is to determine to what extent formulas and empirical methods will agree in their assessment of the difficulty which English prose holds for Quebec francophone ESL students

1.2 Statement of the Problem

The measurement of readability is far from being an isolated field of study of interest to but a few specialists in education. This is amply demonstrated by the sheer quantity of research devoted to the topic. At the practical level, the search for better means to gauge the comprehensibility of printed matter has been associated with important developments in several areas of research, including the creation of techniques for improving communication in business and industry, the rewriting of reading instruction programs, and the designing of computer programs to simulate natural language. Discussion about just what makes texts easy or difficult to understand has also been linked to the emergence of general theories of reading.

A wide variety of methods for assessing text difficulty have been devised over the years. In all this diversity, it is possible to discern three fundamental approaches underlying existing techniques. It is by no means coincidental that three directions have evolved. Given the two basic factors that account for variance in readability, i.e. the reader and the text, three courses of action present themselves: one can either focus one's attention on the reader, on the text, or on the interaction between the two. Consequently, some studies have sought to determine the level of sophistication of written material by analysing

certain variables associated with its readership; e.g., intellectual level, social class membership and educational history. Studies of this nature can be seen as attempts to develop "reader sensitive" measures of text difficulty. Other techniques, principally readability formulas, rely on an analysis of various selected prosodic features, such as sentence length and frequency of occurrence of personal pronouns, to estimate the linguistic complexity of texts. It seems appropriate, therefore, that they be referred to as "text sensitive" measures.

A third category of readability measures assesses reader and text simultaneously. Procedures such as cloze and intrusive word tests take as their yardstick the performance level of readers on comprehension tasks constructed over reading material. Consequently, they provide a global measure of the reading process, which is seen as an interaction between the reader and the text. These instruments may be labeled "interactive" or "global" readability measures.

In spite of the fact that three approaches to measuring readability are possible, only two of these approaches, one in which readability is assessed as a function of textual complexity or another in which it is assessed as a function of reader comprehension, have enjoyed much popularity. As these two approaches are the focus of this study, a dis-

cussion of their strengths and weaknesses is in order.

From a practical standpoint, "text sensitive" measures, of which readability formulas are by far the most popular example, appear to offer a simpler means of assessing readability than "interactive" measures. While text evaluation by formula involves nothing more than a fairly simple paper-and-pencil operation which can be completed by a single individual, methods requiring some form of reader input necessitate a considerable outlay of time and energy on the part of the investigator. They may involve assembling a group of subjects (which, depending on the investigator's motives, may or may not have to be a carefully controlled population sample), constructing, administering and correcting test booklets, as well as performing a set of analyses to convert the raw scores on tests into data which are more easily interpretable. On the other hand, it should be remembered that some "global" measures are relatively easy to construct and that ways exist to simplify other aspects of their use. For example, little time or skill is required to make a cloze test and scoring time can be minimized through the exact-word technique.[1] Also, when the

[1] Exact-word, or verbatim, scoring requires that subjects' responses be identical to the words deleted from the original text for them to be accepted as correct. Thus, although minor spelling mistakes are regarded as acceptable, alternate responses are rejected, even if they happen to fit the context.

same test passages are to be used repeatedly, the examiner has the option of producing multiple-choice versions, with errors made by subjects on an open-ended version providing distractors.

Another seemingly attractive feature of readability formulas is their near perfect reliability.[2] Since formulas determine the linguistic complexity of texts by processing data obtained through frequency counts of specific syntactic components, their data base is necessarily fixed for any given text. Consequently, a particular formula will always yield an identical index of reading ease for the same text, barring user error. "Interactive" measures, on the other hand, are sensitive to numerous psycholinguistic variables associated with the reader and, consequently, cannot provide entirely consistent results. However, some of them, the cloze procedure in particular, have been shown to generate highly stable data. Also, the fact that text sensitive instruments yield perfectly consistent data should by no means be construed as an argument for preferring them to their empirical counterparts. In this regard, two important points deserve to be made

[2]While formula assessment of short passages is completely consistent (barring user error), the grading of books and other longer texts is not absolutely reliable since, in such cases, only segments of the texts are assessed and thus the final grading will vary somewhat depending on the segments chosen.

First, it would be erroneous to interpret reliability as a guarantee of instrument validity. It may be that some readability formulas base their analyses upon features which are not appropriate indicators of overall linguistic complexity. The vast majority of readability formulas were developed in the era before theories of suprasentential grammar achieved popularity; consequently, formula authors did not endeavour to incorporate text-level features into their models of textual analysis. Therefore, one might well argue that the instruments they created offer, at best, an incomplete picture of textual complexity. On the other hand, it is possible that formulas are in fact sensitive to some factors operating above the sentence level since all levels of language are interconnected. Thus, some formulas take into account type-token ratio[3] or proportion of pronouns, both of which reflect some aspect of text cohesion.

A second point to be raised with respect to the absolute reliability of "text sensitive" measures is that this total consistency should more appropriately be regarded as an inflexibility which constitutes the major drawback of readability formulas. Unlike empirical methods, which are sensitive to a whole range of individual and group differences among readers, formulas can do no more than provide an

[3] Type-token ratio refers to the proportion of different words in a text.

idea of the difficulty a text would present to that most abstract of entities, the "average" reader. In this regard, it must be pointed out that, while global techniques of readability assessment like the cloze procedure comprise a valuable set of tools for determining the appropriateness of different reading materials for specific groups of readers, they may also serve as standardized predictors when used in conjunction with statistical methods for sampling large populations.

Another notion which should be considered in any discussion of the relative merits of "text sensitive" and "global" readability measures is the distinction between complexity and comprehensibility. Complexity refers to the level of linguistic sophistication in written material while comprehensibility refers to a more fluid and less easily definable construct which may be defined for the purpose of the present discussion as the result of a process of interaction between variables, some of which originate from the reader and others of which are associated with texts. Naturally, the validity of this distinction depends upon the assumption that the reader does indeed make a significant contribution to the comprehension process. This supposition seems warranted. Indeed, one would have little difficulty convincing anyone involved in the teaching of reading that a text is seldom perceived in the same manner, or read with the same depth of understanding, by different readers, or,

for that matter, by the same individual at different moments. Thus, comprehensibility will vary considerably due to psychological factors, whereas complexity is a stable, unchanging attribute. It is important to point out the distinction between complexity and comprehensibility since, in doing so, one draws attention to the fact that the term readability should rightly be equated with the latter concept and should therefore be associated with the success or failure of the reading process in the context of specific texts and specific readerships. It follows, then, that techniques, such as the cloze procedure, which allow one to quantify the ability of readers to perform legitimate comprehension tasks, constitute more appropriate measures of readability than do methods which depend solely on analyses of formal complexity. To assume that linguistic complexity is equivalent to readability is to relegate the role of the reader to that of a passive absorber of information when, in reality, the reader seems to markedly affect the reading process.

Furthermore, even if one assumes that the reader's contribution to the comprehension process is insignificant in comparison with the role played by textual elements, and that, in consequence, text measures provide adequate estimates of readability regardless of the destined readership, one is nevertheless obliged to admit that the integrity of instruments designed to assess formal complexity is not

easily defensible. Certainly, linguistic science does not at present possess and, for that matter, may never possess, the sophistication necessary to permit an exhaustive analysis of written materials in which individual features of texts would be assigned weightings in order to calculate an index of overall complexity. For this reason, the choice of elements to be included in readability formulas has been based more on common sense and experience than on any theoretical construct. Also, for the same reason, formula authors have relied on outside criteria, such as expert opinion and polls of readers, to calibrate their instruments rather than having their calculations based upon some more detailed methods of linguistic analysis. In contrast to the somewhat questionable validity of the formulas, the validity of empirical instruments like the cloze procedure is easily defensible since their construction is based upon a statistically random sampling of meaningful linguistic units. Ultimately, then, global measures of this genre would seem to be the most appropriate criteria for use in the development of formulas. In this context, one would suppose that formulas should most appropriately be seen as convenient means for estimating the comprehensibility of texts in relation to the category of reader for which they have been calibrated.

It was argued above that the terms "complexity" and "comprehensibility" refer to distinct, though related, con-

structs. If this argument is correct, one would anticipate that such a distinction at the conceptual level would manifest itself at a more concrete level in the form of discrepancies between formula predictions of text difficulty and estimates of reader understanding obtained through empirical means. Furthermore, one might suggest that the disagreement between formula and empirical assessments would be more pronounced when the texts being measured are written in adapted, or "simplified" prose. These texts have most often been written in such a manner, i.e., with high frequency words and short sentences, that they will be rated as highly readable by formulas. Yet, the severely constrained language of many such texts is perhaps sufficiently artificial to create certain obstacles for readers, who may find it difficult to discover the links between ideas and events in texts which lack several of the helpful connecting devices normally present in prose. Thus, in the case of adapted texts, it is possible that empirical procedures which were designed to gauge the success of the reader-text dialogue will yield more accurate and significantly different gradings than will their non-empirical counterparts.

The lack of cohesion in adapted texts may affect the performance of some readers more than others. Thus, individuals who already possess a substantial mastery of their native language, such as adults learning to read for the first time and students learning a second language may find

it particularly difficult to adjust to this denaturalized use of language. On the other hand, it may be that beginner readers in general, regardless of their age or linguistic background, do not possess the reading skills necessary to be able to process suprasentential grammar, in which case the lack of cohesive devices in adapted texts would not adversely affect their degree of understanding

Another point which should be made with respect to second language learners is that their understanding of adapted materials may well be hindered by the lack of low frequency, multi-syllable words in such materials. While texts written largely in short words of Anglo-Saxon origin may be more readable for young native readers, one questions the wisdom of using these same texts with francophone students, who could surely benefit from the abundance of French cognates present in normal English prose.

1.3. Purpose of the Study

The present investigation has as its goal to determine whether two empirical measures of francophone high school students' comprehension of eight English prose passages provide the same information about the relative comprehensibility of these passages as do sixteen popular readability formulas In the context of this goal, the following questions will be addressed:

1 Will different popular readability formulas agree in their assessment of reading materials drawn from an L1 graded reading series for English elementary school students, and, if so, to what degree?

2 Will cloze and intrusive word tests constructed over these same materials provide reliable information about differences in text difficulty when they are administered to francophone high school students enrolled in an L2 program, and, if so, how reliable will this information be?

3 Will cloze and intrusive word procedures agree in their assessments of the difficulty of these materials, and if so, to what degree?

4 Will the cloze and intrusive word procedures provide the same information about the difficulty of these materials as will the formulas?

In order to provide some answers to these questions, the investigation reported in this thesis was undertaken.

REVIEW OF THE LITERATURE

2.1. Readability Formulas

2.1.1. Definition

Klare (1963, p. 33) points out that the term 'readability formula' has been employed inconsistently over the years. In its strictest sense, the term should only be used for regression equations, but such a definition would, in Klare's opinion, mean disregarding many worthwhile studies. On the other hand, overextending the use of the term to include any technique for assessing text difficulty would be equally inadvisable. Therefore, he proposes that a readability formula should be defined as a "predictive device" whose purpose is "to provide quantitative, objective estimates of difficulty for pieces of writing without requiring readers to take tests of any kind over them" (Klare, 1963, pp. 33-34). Harrison (1980, p. 44) comments on the importance of viewing formulas as instruments that predict rather than measure difficulty since it would be erroneous to assume that the text factors incorporated into formulas, such as word frequency and sentence length, actually account for text difficulty. Klare (1963, p. 34) also stipulates

that a procedure for estimating readability cannot be correctly considered a formula unless it is designed for application over a broad range of materials.

2.1.2. History

Although interest in readability is probably very ancient, the systematic measurement of text difficulty is a fairly recent development (Klare, 1963, pp. 29-32). In the early part of this century, research focussed on but one of the factors now generally connected with text difficulty, vocabulary. Undoubtedly, the publication of The Teacher's Word Book (Thorndike, 1921) was by far the most outstanding achievement of this period Besides having an important influence on reading programs in schools, it played a key role in the development of the first method for estimating readability which can truly be regarded as a formula (Lively and Pressey, 1923). Surprisingly, the authors of this early formula did not consider the possibility of including any factors other than vocabulary level in their formula although previous studies existed which suggested that other factors, especially sentence length and syllable length, could be used as predictors of readability (Sherman, 1893; Kitson, 1921).

Another important contribution was made to the study of readability in the twenties with the publication of the

McCall-Crabb's Standard Test Lessons, a set of over 300 reading passages, each accompanied by multiple choice comprehension items. These passages, which were graded in order of increasing difficulty, later served as the criterion for the calibration of several important readability formulas (Klare, 1963, p 32)

Five years after Lively and Pressey's formula appeared, Mabel Vogel and Carleton Washburne published a study in which they reported a 80 correlation between scores assigned to 700 books by the Lively-Pressey formula and the grade levels determined for these books on the basis of the Stanford Achievement Test scores of children who had read and liked them In the same study, they analyzed stylistic elements in selected passages drawn from 152 of these books and derived a four-factor regression equation Their work deserves recognition for two reasons First, it was a pioneer study in the use of an external criterion to validate a component in an existing formula Second, the manner in which they derived their formula, as well as the formula's actual appearance, was to serve as a model for future formula constructors (Klare, 1963, pp 38,39) The procedure which they followed in developing their formula can be summarized as follows: "survey and analysis of potential elements and stylistic features thought to be related to text difficulty; counting and correlation of element [illegible] [illegible] with [illegible] of [illegible]

sages; and combination into a regression equation formula" (Klare, 1963, p. 35). When the authors correlated scores obtained by their formulas with the grade levels determined for the criterion books, they obtained a coefficient of .845.

By the latter half of the thirties, research tended towards more detailed analyses of stylistic factors relating to readability. Gray and Leary (1934, 1935) evaluated 289 variables and constructed several regression equations containing various combinations of the most predictive of these elements. Their five-factor formula has become the most widely used of these equations (Klare, 1963, pp. 48-50).

The year 1938 marked the beginning of a new direction in formula construction characterized by an emphasis on creating simpler and more efficient techniques. Among the important studies of this period are the following: the Washburne-Morphett (1938) revised version of the Vogel-Washburne formula; the Lorge (1948) formula; and the Gunning (1952) Fog Index. Several formulas published at this time (1938 - 1953) were accompanied by tables which made it easier and more rapid for users to determine formula scores (Klare, 1961, pp. 51-66).

From 1953 onwards, the majority of research has been devoted to the formulas for specific purposes such as

predicting the difficulty of texts to be used with a particular level of readers, e.g., elementary school students, or measuring special features of texts, e.g., level of abstraction (Klare, 1963, pp. 66-74).

2.1.3. Validity

Validity studies of readability formulas fall into three categories (Klare, 1963, pp 111-156). In the first of these categories are to be found the original studies by the authors of the formulas in which some criterion of text difficulty was used to calibrate their instruments. In general, the criterion selected was a set of graded test passages, of which the McCall-Crabbs Test Lessons (McCall and Crabbs, 1925) have been the most popular. Correlations between modern formulas and the criteria which served in their creation have not generally risen above .70, which would indicate that these formulas account for approximately one half of the variance present in the criteria and that, according to Klare, their predictions of grade level will fall within one grade of a "true" rating (Klare, 1963, pp. 112-115).

Klare's second category of validity studies referred to those whose aim was to establish the degree of agreement existing between different formulas. He found it difficult

to compare the results of the various studies due to differences in the formulas, sets of materials and correlation techniques which were used. However, he thought that some conclusions were warranted. First, of all the formulas analysed, the Dale-Chall performed best in correlation with other formulas. Also, when the Dale-Chall and Flesch formulas were used as criteria, the Washbourne-Morphett generally yielded higher ratings and the Lewerenz, lower ratings (Klare, 1963, pp. 115-121).

The third category of validity studies investigated by Klare was comprised of experiments which attempted to validate formulas against external criteria. A survey of 65 important studies revealed that, in the majority of cases, the relationship between formula scores and outside criteria was significant. The criteria used in these studies related to: reading comprehension (graded passages other than those used in the development of the formulas; results on reading comprehension tests); reading speed, or efficiency; judgement of experts and readers; readership (sales studies and polls of reader preferences); and authorship (the intellectual or educational level of writers) (Klare, 1963, pp. 121-156).

Another method for calibrating the difficulty of passages to be used in validity studies of formulas has been discussed by Miller and Coleman (1967). They argued that

the cloze procedure developed by Taylor (1953) was to be preferred to other techniques. In discussing other methods, they pointed out that measures which interpret readability as a function of the number of correct responses to comprehension questions are subject to the criticism that the values thus obtained are significantly affected by variances in the difficulty of questions. The technique proposed by Newman and Gertman (1952) to estimate the redundancy of reading materials in bits has the disadvantage of becoming asymptotic above the fifth-grade level since it fails to take into account interaction at the word and sentence level. Cloze tests, they conclude, are "more useful in calibrating a scale of complexity because their scores are related to the total constraint in the passages" and because the scores they yield "give a measure of readability over the whole range of difficulty" (Miller and Coleman, 1967, p. 854). It is for this reason that Coleman and Liau (1975) used cloze scores as the criterion for the development of their computerized readability formula.

2.2. Empirical Measures

2.2.1. Introduction

Colin Harrison (1980, p. 6) lists subjective ratings, multiple-choice question-and-answer comprehension tests, and cloze procedure as the most popular techniques for measuring

test difficulty empirically. Subjective ratings have served as the criterion in several validation studies of formulas (Klare, 1963, pp. 139-144) and have been found to agree significantly with formula scores in most cases. Harrison (1980) found that, while individual ratings were inconsistent, pooled ratings provided stable estimates of text difficulty. Carver (1975-76) proposed that subjective rating might be made more efficient if it were done by small groups of raters who have demonstrated their ability to assess text difficulty reliably on a pre-test.

Multiple-choice comprehension testing has been the most popular method for calibrating the difficulty of passages to be used in formula construction (Klare, 1963, pp. 75-80). The McCall-Crabbs Test Lessons (1925), the most widely known example of this form of testing, has served as the criterion in the construction of more formulas than any other single criterion from the forties onwards (Klare, 1963, p. 53). Harrison (1980, pp. 37-41), however, pointed out that certain questions must be raised about the validity of such tests. Tuinman (1973-74), he reports, has demonstrated that proficient readers could correctly answer many of the items on five standard reading tests without having access to the passages upon which the items were based. Harrison interprets Tuinman's findings as evidence that the ability to answer questions on a text may be more closely related to a respondant's general proficiency in a language than to

his understanding of a particular passage. Furthermore, as Harrison points out, the standardization of items on a multiple-choice reading test is not a straightforward matter. While several procedures for deriving questions from a passage have been proposed, no truly satisfactory solution to the problem has been found

The third experimental technique to be widely used in readability research is the cloze procedure It has been defined (Gilliland, 1972, p. 84) as "the deletion of a number of words from a prose passage randomly determined or at fixed intervals, commonly every fifth word." When Taylor (1953) introduced the technique, he explained that its name had been derived from the gestalt term 'closure', which refers to the "human tendency to complete a familiar but not-quite-finished-pattern — to see a broken circle as a whole one, for example, by mentally closing up the gaps" (Taylor, 1953, p 415). This principle, argued Taylor, could be seen operating in language as well as in visual perception and that, therefore, when subjects filled in the blanks in a cloze passage they were attempting "to make the [language] patterns whole again" (Taylor, 1953, p 416). Cloze procedure, then, "takes a measure of the likeness between the patterns a writer has used and the patterns the reader is anticipating while he is reading" (Taylor, 1953, p. 417).

Another testing technique, to which little attention has been paid, is the intrusive word procedure.[4] Davies and Widdowson (1974, p 168) have proposed it as a measure of reading speed but add that any such meaningful test of reading speed must also assess comprehension. They argue that rapid reading "involves increasing the speed and efficiency of a process already acquired as general comprehension, and not the development of a new process altogether." Davies (1977, p 85) classifies the intrusive word technique as a measure which could operate at both the context level (a term which he uses to refer to any section of text from a sentence up) and the extra-linguistic level (wherein the subjects' general knowledge is challenged to some degree). From an examination of the classification system which he proposes (Davies 1977, p 85), it seems clear that he views intrusive word testing as a technique which evaluates global comprehension and discourse level processing. Furthermore, given that the ease with which a reader interprets a text is a function not just of his proficiency as a reader but also of the linguistic complexity of the material he is reading, then the following statement by Davies and Widdowson (1974,

[4] In contrast to the cloze procedure, the intrusive word procedure requires the test constructor to add words to a text, rather than delete words from it. The testee's task is to cross out these extraneous words. For the purposes of the present investigation, a multiple-choice version of the intrusive word test was developed. In this version, several groups of words have been underlined in each test passage. Each group contains an 'intrusive' word which subjects must identify and cross out.

p 168) could be taken to indicate that the intrusive word technique might well have applications as a readability measure: " . speed is related to the familiarity of the material which is being read and consequently to ease of interpretation " No studies were found which attempted to establish the empirical validity of this procedure.

2 2.2 Validity

From a theoretical standpoint, the credibility of cloze procedure as a readability measure has been a subject of much discussion Taylor's (1953) view that the reader anticipates language patterns and that cloze procedure assesses his ability to fill in the gaps in language patterns is echoed in the conceptualization of the reading process found in models of reading proposed much more recently Certainly Frank Smith's (1978, p 164) assertion that "the basis of reading must be prediction" and "the meaning of a sequence of words will permit the identification of individual words with relatively less visual information and even make the precise identification of particular words unnecessary" (Smith, 1978, p. 157) would seem to indicate that the reading process is similar to the task performed by subjects filling in blanks on a cloze test Indeed, when another contemporary theorist, Goodman (1970), calls reading a "psycholinguistic guessing game", one is tempted to recall Taylor's (1953, p 417) words: "cloze

procedure repeatedly samples the likeness between the "language patterns used by the writer to express what he meant and those possibly different patterns which represent readers' guesses at what they think he meant " According to Oller (1979, p 347), filling in the blanks on a cloze test is analogous to the natural use of language in that the testee must "process temporal sequences of elements in the language that conform to normal contextual constraints" and must understand the test passage by a process which he describes as "mapping it onto extralinguistic context."

Miller (1965) compared cloze procedure with objective question-and-answer comprehension tests and found the former superior in three ways First, cloze procedure assesses text comprehensibility directly while multiple-choice tests actually measure item difficulty in order to predict readability. Secondly, cloze tests measure testees' familiarity with the subject matter of the test passages This is not the case with multiple-choice reading tests because the questions follow the text, with the result that it is uncertain whether testees answer from previous knowledge or from their understanding of the test passage Thirdly, cloze provides a precise and detailed assessment of passage difficulty, especially if several, or all, versions of a cloze test over the same passage are used By contrast, multiple-choice testing is a somewhat haphazard and imprecise affair since the items written for each passage

are but a very small sample of all the items that could be created. Bormuth (1967, pp. 292-93) has, however, pointed out that test experts would seem to hold the view that multiple-choice reading tests are valid measuring devices since the items actually written for a given test passage can be seen as an unbiased sample of the total set of items which could be written for that passage. A large body of experimental evidence exists to establish cloze procedure as a consistent readability measure. Taylor (1953) reported that scores of six subjects on cloze tests over eight passages correctly predicted the ranking of the same eight passages by the cloze scores of a larger group of subjects. Furthermore, he found that scores of different sub-groups of the larger group of subjects ranked the passages in almost exactly the same way. Moreover, his experiment demonstrated that cloze ranking of passages is not affected by changes in the word selection system, as long as the system was random, or equivalent to random (every -nth word). Finally, he investigated two scoring techniques. First, he scored for exact-word correspondence between subject responses and words from the original texts, allowing one point per item. Next, he rescored the same tests, this time allocating half points for acceptable synonyms. The second technique, though more time consuming, failed to improve discrimination between passages. More recently, however, evidence has been presented to suggest that cloze tests scored with the appropriate-word method correlate a little better with other

tests of reading comprehension (Oller, 1972; Stubbs and Tucker, 1974).

Bormuth, who has done extensive investigations into the validity and usefulness of cloze tests, found that they could be used to accurately assess the comprehension of persons of widely varying reading ability (Bormuth, 1963) In another experiment (Bormuth, 1968), the same author constructed cloze tests over the seventy-two paragraphs from the four forms of a standardized reading comprehension test (Gray Oral Reading Test, 1963). He reported correlations at 90 or better between the cloze scores for these paragraphs and their level of difficulty as determined by tests of comprehension and word recognition.

It is surprising, given the wide use of cloze procedure for measuring the readability of materials for mother tongue students, that little use has been made of it to assess second language texts. Indeed, in L2 practice the technique "has moved from a narrow to a much more general use: from a readability measure through comprehension testing to general language proficiency testing" (Davies, 1979, p 131). In its place, authors of L2 readers have preferred less exact methods, principally the use of word lists derived from vocabulary counts as guides for controlling the number of uncommon words in materials, along with the simplification of the syntactic content elements (Davies, 1979, p 129)

2.3. Comparison of Empirical and Non-Empirical Methods

Discussion of the comparative merit of experimental and non-experimental approaches to readability measurement has focussed on comparisons between the cloze procedure and formulas. Taylor, (1953, p. 433) admits that formulas do have some advantages, being "easier and quicker to apply", "reasonably accurate" when applied to "what may be called 'standard' materials", and reliable to the extent that "with little training, different users of the same formula get virtually identical results for the same materials". However, he contends that the use of formulas carries with it some very serious drawbacks, one being that no accurate method exists for determining which materials are sufficiently "standard" for the analysis by one formula or another to be appropriate. To support this claim, he cites the results of an experiment in which he compared cloze and formula rankings of a series of passages. The formulas had no difficulty rating three passages written in normal prose: for three passages drawn from Flesch's <u>How to Test Readability</u> (1951), cloze scores and readability indices from two popular formulas (Flesch, 1943; Dale-Chall, 1948) were in near perfect agreement. However, while cloze rankings for three other passages containing exceptional prose (selections by three modern writers - Erskine Caldwell, Gertrude Stein and James Joyce) matched the experimenter's personal assessment of their difficulty, Flesch ratings for the same

passages greatly under-estimated the difficulty of all three selections. The Dale-Chall formula performed fairly well on two of the passages, but under-rated the Stein text. Taylor remarks that the conclusion to be drawn from these results is not that formulas are poor predictors of readability, but that their range of application is significantly smaller than that of the cloze procedure.

Klare (1963, pp 24,25) lists four major limitations of formulas: (i) They are insensitive to features of writing other than style. Content is, at best, assessed indirectly and no attention is given to other textual elements, such as "organisation, word order, format, ... imagery", or any characteristics associated with the reader. (ii) While they gauge the difficulty of a text, they ignore all other stylistic elements. (iii) They are rarely accurate to within one grade level. (iv) They fail to take into account the quality of the writing, a factor which contributes significantly to readability. By contrast, cloze procedure "appears to reflect the sum total of all influences which interact to affect readability" and allows "both reader and book (to be) assessed simultaneously" (Gilliland, 1972, p 105).

While many studies which compared cloze procedure with formulas were found, none were found which compared intrusive word testing with non-empirical readability measures

RESEARCH METHOD

As stated above, the purpose of the present investigation is to compare the performance of empirical and non-empirical techniques for assessing text difficulty. To do so, an experimental design incorporating correlational techniques was adopted.

3.1. Instrumentation

3.1.1. Selection and Adaptation of the Passages

A set of passages written in narrative prose was chosen to serve as the point of reference by which the performance of several readability measures could be compared. It was determined that the most appropriate length for these passages would be 150 to 180 words. Passages of this length provide language samples of sufficient size for readability assessment to be reasonably accurate. It was also determined that eight such passages should be included in the investigation because this number of levels of text difficulty would provide an adequate scale for comparing the performance of the various readability measures. No more

than eight passages were used for the following reasons While approximately five hundred subjects would participate in the experiment, each subject would only be able to perform four comprehension tasks (i e , two cloze tests and two intrusive word tests) due to time limitations beyond the control of the experimenter.[5] Since it was considered desirable to investigate the reliability of the empirical measures, it was decided to construct three forms of each test over each test passage Thus, assessing eight passages would mean a total of twenty-four cloze tests and twenty-four intrusive word tests Consequently, considering the number of available subjects and the number of tests which each subject could do, it was concluded that increasing the number of passages above eight would make inter-form correlation studies meaningless by reducing the number of subjects completing each test form to the point where it would be impossible to obtain sufficiently reliable statistics.

The reading passages used in the study were drawn from the S R A International Reading Ila Power Builders, a series of texts adapted for students in English elementary schools. This particular set of materials was chosen because it contained a selection of passages of varying

[5] In the school where the subjects were enrolled as students, the English class lasts fifty minutes The subjects were made available to the experimenter for one class only

difficulty which were the appropriate length for use in the experiment and which were judged by the experimenter to be suitable for the subjects in terms of both their reading ability and mental age. As this reading series contains twelve colour-code levels of reading difficulty and only eight passages were required for the present experiment, it was arbitrarily decided that every third level of the reading lab would be excluded as a possible source of material for use in this study.

For the sake of uniformity, certain constraints were respected in the selection of the passages for the experiment. To be chosen, a passage had to relate what could be considered a more or less complete narrative sequence. It had to be no shorter than 150 words and no longer than 180 words. Only the first such passage found in each of the eight previously selected S.R.A. levels of reading difficulty was set aside for use in the experiment. As much as possible, passages were drawn from the beginning of the original texts so as to avoid choosing material containing references to information introduced in some preceding segment of text. In two cases, it was necessary to take a passage from the middle of a text since there had been no narration up to that point. A few minor changes involving the omission or addition of one or two words were made to five of the passages when it was discovered that some highly subject-specific items would be generated if the passages

were subjected to cloze procedure in their original form. In making these alterations, care was taken not to introduce any lexical or syntactic elements which would violate the readability level of the texts involved (see Appendix III).

3.1.2. Construction of the Empirical Measures

Three versions of the cloze test and three versions of the intrusive word test were constructed over each of the eight test passages. Multiple versions were used so that the reliability of each measure might be tested empirically. Also, it was thought that the combined scores of a group of subjects on three different versions would constitute more reliable data than the scores of the same number of subjects on a single version.

Twenty-item test forms were considered appropriate for the following reasons. First, given that approximately forty subjects would write each test form (500 subjects were available and each one could write four test forms in the time provided, there being a total of forty-eight forms prepared for the experiment), twenty items were thought to be a sufficient number of reference points upon which to estimate passage difficulty reliably. Secondly, creating more than twenty items per form through a reduction in the number of words between blanks to fewer than seven would have perhaps adversely affected the validity of subjects'

responses by encouraging guessing. For the sake of standardization, only twenty items were created even though some passages were long enough to allow for the creation of as many as twenty-three items.

3.1.3. Construction of the Cloze Tests

Beginning with the second sentence of each passage, every seventh word was deleted and replaced with an underlined blank 1 1/4 inches long until twenty such items had been generated. As mentioned above, three versions of the cloze test over each passage were constructed. This was done by initiating the cloze procedure alternately at the seventh, the eighth, and the ninth word of the second sentence in the passage. The first sentence was left untouched in all cases. The object of this procedure was to create unbiased forms of each test over each passage (see Appendix IV).

3.1.4. Construction of the Intrusive Word Tests

The object of the rather elaborate procedure described below was to randomly generate three unbiased versions of the intrusive word test over each passage. Each test passage was to contain twenty items. An item was created by adding an 'intrusive' word to a set of four words in the test passage and then underlining the five words to

insure that an intrusive word would not violate the level of lexical sophistication of the test passage, the words to be used for this purpose were drawn from the same text in which the test passage had been found but from a section of that text other than that of the test passage. The items thus created had a multiple-choice format, the task of the subjects being to identify and cross out the intrusive word in each set of words (see Appendix V).

The first step in the construction of the intrusive word tests involved fixing the position of the items within the passages. To accomplish this, three copies were made of each of the eight passages and each copy was assigned a twenty-member set of numbers comprised of the integers one, two and three in random sequence. Then, in a given copy, the experimenter began with the first word of the second sentence and counted off a number of words corresponding to the value of the first integer in the set of numbers assigned to that copy. Next, the four words following the last word in the count were underlined. This procedure was then repeated using the second number of the set and counting from the word immediately following the underlined words. Again, the four words following the last word in the count were underlined. By continuing in the same manner until the set of numbers was exhausted, a total of twenty groups of words were underlined. Each group was separated from the one before and after it by one, two or three words.

In the second step of test construction, each copy of each passage was again assigned a set of randomly ordered integers. This time, the integers ranged from zero through four. For a given copy, each number in the assigned set was used to determine the point at which an 'intrusive' word would be inserted into one of the groups of underlined words in order to create a test item. In this procedure, the integer 'zero' was taken to indicate that a word was to be added just before the first word of the group, 'one' meant it would be inserted between the first and second words, and so on. The sets of numbers described here each contained twenty numbers so that there was a number to determine the position for the intrusive word in each word group in every copy. Another set of random numbers (zero through nine) was consulted whenever punctuation occurred at the point picked for word insertion. When the number from this list was even, the 'intrusive' word was placed before the punctuation; when it was odd, after the punctuation.

In the following stage of test construction, the SRA booklet from which each test passage had been drawn was employed as the source for the 'intrusive' words to be inserted into word groups. From the 140-word stretch of text immediately following the test passage (140 words of text being the amount of text available in the shortest of eight booklets), words were selected by referring to a list of random numbers. In this manner, three lists of thirty

words were compiled for each test passage, i.e., one list for each copy of the passage. In one case, it was necessary to draw the words from the stretch of text directly before the test passage since that particular passage occurred quite near the end of the booklet.

Once these lists of words had been drawn up, all that remained was to add words to the underlined word groups. Accordingly, for any given copy of a passage, the first word of the list assigned to that copy was inserted into the first underlined word group at the position determined in the second stage of test construction. The procedure was repeated for each word group in the passage. When the word to be inserted happened to be identical to the word before or after the point at which it was to be added, that word was crossed off the list and replaced by the next word from the list. The same method was followed when a word from the list happened to fit the context in which it was to be inserted. In this regard, both sentential and supra-sentential context were considered so that a word which did not violate the structural or semantic constraints of the sentence to which it was to be added could nevertheless be considered as 'intrusive' if it did not fit the broader suprasentential context.

In the final typed version of each test form, there were twenty underlined word groups, each of which consisted

of four words from the original passage and an 'intrusive' word Each word group was separated from the subsequent group by one, two, or three words of the original passage. The first sentence of each test form was always left itemless (see Appendix V).

3.1.4 Preparation of the Instructions to the Testees

Two sets of concise instructions, one for the cloze tests and another for the intrusive word tests, were drafted in French, the first language of the subjects. For the sake of uniformity, the same simple format was employed for both sets of instructions. The appropriate set of typed instructions was then placed at the top of each of the previously prepared test forms (See Appendix IV and V).

3.1.5. Assembling of the Test Booklets

As pointed out above, each subject was to write four tests out of a possible forty-eight. In order to insure that the data collected through the cloze and intrusive words tests was obtained in an empirically justifiable manner, the test forms had to be randomly assigned, with the following restrictions, to individual subjects First, it was thought best that each subject write equal numbers of both test types, i.e , that he or she write two cloze tests and two intrusive word tests Second, no subject must

receive more than one test over a given passage since one test over a passage would furnish answers for another over the same passage Third, when a cloze or intrusive word test over a given passage was to be assigned to a subject, no preference was to be shown in the selection of the particular form of the test to be assigned With these objectives in mind, the following procedure was undertaken

The test forms were each identified with a code number referring to the passage (one through eight) and test version (one, two or three). Next, thirty copies of each form were printed up Then, the three forms of each test type for each passage were randomized. Tests were assembled so that all combinations of four different passages were represented by an equal number of items and so that two of the passages were tested with cloze procedure and two with intrusive word procedure The order of the four tests within each booklet was randomized Finally, the whole set of test booklets was put into random sequence before being administered In order to combine these piles systematically into test booklets which would contain only four test sheets each, a table was drawn up to show the seventy possible combinations of eight passages taken in sets of four as well as the six possible orderings for two test types with each type occurring twice As each set of four test sheets was drawn from the piles in combinations prescribed by this table, it was shuffled twice and then stapled

Finally, after all the test booklets had been assembled, they were shuffled thoroughly before being put into envelopes, each of which contained the required number of test booklets for a given group of subjects

3.2. Population

The subjects chosen for the experiment were students attending a francophone high school located just off the island of Montreal. The subjects, who were from eleven to sixteen years of age, were in grades six through eleven. Only students in regular and advanced classes, i e., those with an average or above-average academic standing, were used. It was felt that students in slow classes would have become frustrated if confronted with the tests designed for the experiment and would not have done them conscientiously.

3.3 Administration of the Test Booklets

The test booklets were administered to intact groups of thirty to forty subjects They were distributed in whatever order they were found in the envelope Just before the subjects began their work, they were told that the test booklets were an important measure of their ability to read English texts and they were urged to answer the items conscientiously Each subject received one test booklet and was allowed forty-five minutes to work on it The subjects

worked under the supervision of their English teacher, who collected the test booklets at the end of the allotted time period.

3.4. Scoring of the Tests

Before any test sheets were scored, each test booklet was checked over and any booklet containing one or more test sheets on which fewer than half of the items had been answered was rejected. The remaining booklets were then unstapled and the test sheets re-sorted into the original forty-eight piles in order to facilitate the correction process. All tests were scored on twenty, with one point given for each correct response. The cloze tests were scored for exact-word correspondence with the original passages although words with spelling errors of no morphological or lexical significance were counted as correct. In the case of the intrusive word tests, items where subjects had given more than one response were counted wrong.

3.5. Calculating the Empirically Derived Readability Indices

For each passage, the average score of the subjects on each of the three cloze test forms and on each of the intrusive word test forms was calculated along with the average score of the three cloze forms combined, the three

intrusive word forms combined, and all forms of the two test types combined. These scores, which were rounded off to two decimal places, comprised the empirically obtained indices of readability for the eight passages.

3.6. Readability Formulas

The readability index of each of the eight passages was calculated using the following formulas: Johnson (1930); Gray and Leary (1934, 1935); Flesch (1943); Flesch revised (Powers, Summer and Kearl, 1958); Dale and Chall (1948); Dale and Chall revised (Powers et al 1958); Farr, Jenkins, and Paterson (1951); Gunning (1952); Gunning revised (Powers et al 1958); McElroy (1953); McLaughlin (1969); Coleman and Liau (1975).[6] Whenever applicable, the raw scores for the passages, rather than the grade placements, were recorded in order to assure a higher degree of precision in the data. All indices were rounded off to the second place after the decimal.

[6] These formulas are presented in summary fashion in Appendix II.

ANALYSES

After the readability indices had been determined for the eight passages using the two empirical methods and the sixteen formulas, the mean and standard deviation of each set of indices was computed (see Tables 1 and 2). The empirical and formula ratings presented in these tables were then used to rank the passages from easy to difficult (see Table 3). From the data in these tables correlation matrices were generated to demonstrate the level of agreement among the various formulas (see Tables 4 and 5), among the different versions of the empirical measures (see Tables 6 and 7), as well as between the formulas and the empirical measures (see Tables 8 and 9).

RESULTS AND DISCUSSION

The means for the cloze indices were much lower than those for the intrusive word indices, indicating that the subjects performed significantly better on the latter test However, the standard deviations of passage means for both measures were very similar, with the intrusive word standard deviations slightly smaller. Great variation was found among the means and the standard deviations of the indices generated by the various formulas. This variation, of course, reflected the broad range of numerical scales used by formula authors to quantify differences in readability.

The data presented in Tables 1 and 2 indicates that some of the instruments in the investigation were designed to index readability on a scale of reading ease (viz., the empirical measures, F_2, F_3, F_7, and F_{16}). These instruments generate indices which increase in value as the passages become more readable. The opposite is true of the other instruments reported on in this table. In their case, a higher index is meant to indicate greater reading difficulty. Therefore, in Table 3, the passages were ranked from

TABLE 1

EMPIRICAL READABILITY INDICES FOR THE EIGHT TEST PASSAGES

MEASURES	PASSAGE 1	PASSAGE 2	PASSAGE 3	PASSAGE 4	PASSAGE 5	PASSAGE 6	PASSAGE 7	PASSAGE 8	MEAN	STANDARD DEVIATION
C_1	8.74	10.72	10.09	9.70	4.96	6.38	6.75	6.48	7.98	1.97
C_2	8.60	8.79	10.91	5.55	8.38	8.24	5.21	5.93	7.45	1.86
C_3	9.00	8.94	9.65	9.38	6.84	8.04	6.07	5.50	7.93	1.49
C_T	8.78	9.51	10.19	8.24	6.05	7.58	6.01	5.50	7.73	1.63
I_1	16.81	16.15	16.26	15.31	13.90	13.89	17.08	14.33	15.46	1.22
I_2	16.69	16.29	17.50	15.07	15.80	14.16	14.81	13.79	15.51	1.20
I_3	16.38	16.93	15.83	16.39	13.52	13.80	15.73	12.91	15.19	1.44
I_T	16.63	16.46	16.53	15.59	14.42	13.93	15.84	13.64	15.38	1.14
$C_T I_T$	12.29	12.89	13.54	11.81	10.33	10.93	10.90	9.81	11.56	1.21

NOTE: The numbering of the passages reflects the order in which they appear in the S.R.A. Reading Laboratory from which they were drawn. According to this ordering, the difficulty of the passages should increase from Passage 1 to 8. The indices presented in this table are the average scores of the subjects on the various tests. An explanation of the symbols used in this table is to be found in Appendix I (Key to the Symbols in the Tables), p. 68.

TABLE 2

FORMULA READABILITY INDICES FOR THE EIGHT TEST PASSAGES

FORMULAS	PASSAGE 1	PASSAGE 2	PASSAGE 3	PASSAGE 4	PASSAGE 5	PASSAGE 6	PASSAGE 7	PASSAGE 8	MEAN	STANDARD DEVIATION
F_1	10.83	17.53	11.18	23.46	25.66	25.31	25.63	28.25	20.98	6.44
F_2	1.72	1.63	1.84	1.43	1.01	1.16	1.13	1.02	1.37	0.31
F_3	104.22	95.74	103.69	91.17	83.78	72.82	85.44	68.42	88.16	12.33
F_4	3.66	3.95	3.66	4.23	4.71	5.35	4.64	5.65	4.47	0.72
F_5	4.17	4.12	4.50	4.47	5.10	5.44	5.58	6.57	4.99	0.79
F_6	3.86	3.80	4.12	4.09	5.10	4.93	5.00	5.82	4.53	0.65
F_7	102.22	92.53	100.89	81.74	74.50	72.97	73.88	65.25	83.01	13.00
F_8	3.49	3.34	4.04	4.09	6.91	7.13	6.08	10.47	5.69	2.30
F_9	4.90	5.47	5.00	6.17	6.69	6.85	6.76	7.40	6.16	0.87
F_{10}	3.36	2.90	3.79	3.61	5.92	6.82	5.92	10.35	5.33	2.32
F_{11}	2.04	1.92	2.38	2.32	3.67	3.84	3.92	5.75	3.24	1.23
F_{12}	9.44	13.50	10.59	21.11	32.50	37.27	34.17	50.00	26.07	13.71
F_{13}	4.36	3.86	3.68	4.49	5.69	5.48	6.07	7.06	5.09	1.10
F_{14}	1	2	2	3	5	7	5	8	4.13	2.37
F_{15}	3	5	3	6	8	8	6	10	6.13	2.32
F_{16}	76.04	72.40	75.94	65.88	58.89	60.82	60.75	53.38	65.51	7.93

NOTE: An explanation of the symbols used in this table is may be found in Appendix I (Key to the Symbols in the Tables), p. 68.

TABLE 3

RANKING OF EIGHT PASSAGES BY THE READABILITY MEASURES

MEASURE	PASSAGE 1	2	3	4	5	6	7	8
C_1	4	1	2	3	8	7	5	6
C_2	3	2	1	7	5	4	8	6
C_3	3	4	1	2	6	5	7	8
C_T	3	2	1	4	6	5	7	8
I_1	2	4	3	5	7.5	7.5	1	6
I_2	2	3	1	5	4	7	6	8
I_3	2.5	1	3	2.5	6	5	4	7
I_T	1	2.5	2.5	4	5	6	3	7
$C_T I_T$	3	2	1	4	6	5.5	5.5	7
F_1	1	3	2	4	7	5	6	8
F_2	2	3	1	4	7.5	5	6	7.5
F_3	1	3	2	4	6	7	5	8
F_4	2	3	1	4	6	7	5	8
F_5	2	1	3.5	3.5	4	5	6	7
F_6	2	1	3.5	3.5	4	5	6	7
F_7	1	3	2	4	5	7	5	8
F_8	2	1	3	4	6	7	5	8
F_9	1	3	2	4	5	7	6	8
F_{10}	2	1	4	3	5.5	6	5.5	7
F_{11}	2	1	4	3	5	6	7	8
F_{12}	1	3	2	4	5	7	6	8
F_{13}	3	2	1	4	6	5	7	8
F_{14}	1	2.5	2.5	3	4.5	5	4.5	6
F_{15}	1.5	2	1.5	3.5	4.5	4.5	3.5	5
F_{16}	1	3	2	4	6	5.5	5.5	7

NOTE: An explanation of the symbols used in this table may be found in Appendix I (Key to the Symbols used in the Tables), p. 68.

easy to difficult in all cases, the values being reflected for those indices which indicate difficulty rather than ease (viz., F_1, F_4, F_5, F_6, F_8, F_9, F_{10}, F_{11}, F_{12}, F_{14} and F_{15}). All the indices were rounded off to the first decimal place preceeding the ranking.

The indices and rankings presented in Tables 1, 2 and 3 served as the data for the generation of several correlation matrices showing Spearman Rank Order coefficients between the various readability measures (see Tables 4, 5, 6, 7, 8 and 9). In the case of the product moment correlation coefficients, all negative values in which the two variables were oppositely scaled were reported as positive. No such adjustment was necessary for the rank order correlation coefficients as the rankings of the passages had already been standardized in Table 3.

From the data collected in this study, a number of comments can be made about the readability measures. First, a consistently high level of agreement (rho[6] = .684 to 1.00 /r[7] = .731 to 1.00) was obtained among the different text measures (see Tables 4 and 5). The perfect correlation (both rho and r) between F_5 (Dale and Chall, 1948) and F_6 (Powers, Summer and Kearl, 1955) was not totally unexpected

[6] rho: Spearman Rank Order coefficient of correlation

[7] r: Pearson Product Moment coefficient of correlation

TABLE 4

SPEARMAN RANK ORDER CORRELATION COEFFICIENTS BETWEEN THE FORMULAS

	F_2	F_3	F_4	F_5	F_6	F_7	F_8	F_9	F_{10}	F_{11}	F_{12}	F_{13}	F_{14}	F_{15}	F_{16}
F_1	.952	.929	.905	.792	.792	.905	.857	.905	.827	.810	.905	.905	.833	.720	.970
F_2		.857	.881	.684	.684	.810	.786	.810	.744	.690	.810	.905	.762	.708	.923
F_3			.976	.792	.792	.976	.929	.976	.851	.845	.976	.833	.857	.744	.958
F_4				.756	.756	.952	.905	.952	.804	.762	.952	.881	.821	.744	.935
F_5					1.00	.839	.875	.839	.952	.946	.839	.839	.905	.810	.857
F_6						.839	.875	.839	.952	.946	.839	.839	.905	.810	.857
F_7							.905	1.00	.851	.857	1.00	.857	.857	.720	.946
F_8								.905	.946	.905	.905	.833	.845	.720	.887
F_9									.851	.857	1.00	.857	.857	.720	.946
F_{10}										.958	.851	.804	.887	.774	.875
F_{11}											.857	.833	.807	.625	.827
F_{12}												.857	.857	.720	.946
F_{13}													.762	.684	.887
F_{14}														.952	.929
F_{15}															.845

NOTE. An explanation of the symbols used in this table may be found in Appendix I, p. 68

TABLE 5

PEARSON PRODUCT MOMENT COEFFICIENTS BETWEEN THE FORMULAS

	F_2	F_3	F_4	F_5	F_6	F_7	F_8	F_9	F_{10}	F_{11}	F_{12}	F_{13}	F_{14}	F_{15}	F_{16}
F_1	.949	.907	.888	.774	.774	.986	.770	.731	.731	.774	.908	.832	.867	.925	.963
F_2		.897	.897	.818	.822	.965	.836	.963	.793	.838	.931	.842	.885	.916	.975
F_3			.997	.886	.891	.952	.911	.960	.895	.888	.970	.871	.982	.966	.943
F_4				.904	.909	.942	.928	.953	.918	.907	.978	.895	.985	.957	.941
F_5					1.00	.864	.968	.886	.979	.994	.958	.948	.939	.836	.892
F_6						.865	.970	.888	.981	.995	.960	.946	.944	.839	.894
F_7							.860	.999	.830	.864	.964	.898	.933	.950	.990
F_8								.881	.993	.984	.957	.931	.948	.901	.905
F_9									.855	.886	.976	.913	.948	.952	.992
F_{10}										.988	.945	.938	.938	.864	.873
F_{11}											.961	.958	.937	.858	.904
F_{12}												.956	.981	.945	.976
F_{13}													.894	.857	.935
F_{14}														.932	.936
F_{15}															.960

NOTE: An explanation of the symbols used in this table may be found in Appendix I, p. 88.

as the second was a revised version of the first However, the perfect rho coefficients and the near perfect r coefficients between F_7 (Farr, Jenkins and Paterson, 1951), F_9 (Powers, Summer and Kearl, 1958: Gunning's 1952 formula revised) and F_{12} (Wheeler and Smith, 1954) was not predictable While each of these formulas indexed readability on the basis of two variables (number of words per sentence and some measure of word length) and a constant, this is a pattern seen in most formulas (see Table 10)

The general high level of agreement between the formulas can only lead to the conclusion that they must measure some common set of variables, which can probably best be labeled text complexity. The impressive concordance between these instruments was to be expected since the same, or related, factors are to be found in all of the formulas (see Table 10)

With regards to the empirical measures in the experiment, the inter-form correlations were high enough (cloze procedure - rho = .452 to .667 / r = .531 to .799, intrusive word procedure - rho = .446 to .673 / r = .529 to .816) for them to be considered reasonably reliable measuring devices (see Tables 6 and 7). One might expect to obtain more consistent results with these measures had longer stretches of text been used in test construction to so to increase the number of items The estimated reliabilities of the data

TABLE 6

SPEARMAN RANK ORDER CORRELATION COEFFICIENTS BETWEEN THE EMPIRICAL MEASURES

	C_2	C_3	C_T	I_1	I_2	I_3	I_T	$C_T I_T$
C_1	452	.667	.762	589	464	839	.673	863
C_2		571	810	042	714	470	458	768
C_3			.905	.256	762	720	625	863
C_T				304	857	.792	696	.958
I_1					446	595	786	.554
I_2						673	804	875
I_3							881	.881
I_T								833

NOTE: An explanation of the symbols used in this table may be found in Appendix I, p 68

TABLE 7

PEARSON PRODUCT MOMENT CORRELATION COEFFICIENTS BETWEEN THE EMPIRICAL MEASURES

	C_2	C_3	C_T	I_1	I_2	I_3	I_T	$C_T I_T$
C_1	531	799	876	591	594	846	780	892
C_2		670	823	222	723	307	469	774
C_3			940	314	679	705	661	877
C_T				449	764	750	746	970
I_1					539	816	889	619
I_2						605	808	832
I_3							932	814
I_T								864

NOTE. An explanation of the symbols used in this table may be found in Appendix I, p 68

scores for the cloze and intrusive word procedures were .795 and .792, respectively[8] A considerable degree of agreement was also found between these two measures The combined scores of the subjects on the three forms of each test accounted for approximately one-half the common variance (rho = .696 /r = .746) In addition, the correlation between scores on the individual forms of one test and the combined scores on the other test were generally high, although agreement between scores on the first form of the intrusive word test and the total cloze scores was very low (rho = .304/ r = .449) For some reason, this form of the intrusive word test correlated poorly not only with cloze test forms, but also with many of the text measures

Finally, the empirical and text measures were observed to agree substantially with one another (see Tables 8 and 9). The coefficients of correlation between the combined cloze scores and the formulas were rarely lower than .80 and, in three cases, actually exceeded .90 (rho and r) Here it is of great interest to note the perfect rho correlation and near perfect r correlation between the combined cloze scores and F_{13} (Lorge, 1959) This formula proved itself to be one of the best overall predictors of empirical measures, as will be seen below The combined

[8]Mean intercorrelation among forms and Spearman-Brown prophesy formula

TABLE 8

SPEARMAN RANK ORDER CORRELATION COEFFICIENTS BETWEEN EMPIRICAL MEASURES AND FORMULAS

	F_1	F_2	F_3	F_4	F_5	F_6	F_7	F_8	F_9	F_{10}	F_{11}	F_{12}	F_{13}	F_{14}	F_{15}	F_{16}
C_1	714	821	738	736	661	.661	.667	.833	667	.804	.690	667	762	667	849	744
C_2	667	.690	548	583	.673	673	619	.548	619	542	.571	619	810	.571	.565	696
C_3	857	857	790	833	708	.708	810	690	810	708	.738	810	905	738	613	839
C_T	905	905	833	881	.804	804	857	833	857	804	833	857	1 00	762	684	887
I_1	530	542	684	661	333	333	577	613	530	506	256	530	.304	.583	595	625
I_2	810	738	905	929	792	.792	952	.833	952	744	.762	952	.857	786	696	.875
I_3	815	780	.815	804	887	887	768	899	768	.960	839	768	792	899	857	.857
I_T	815	732	911	875	815	815	863	.875	863	845	720	863	.698	935	899	952
$C_T I_T$	899	923	887	857	845	.845	875	887	875	851	804	875	958	.857	.833	929

NOTE. An explanation of the symbols used in this table may be found in Appendix I, p 88

TABLE 9

PEARSON PRODUCT MOMENT CORRELATION COEFFICIENTS BETWEEN EMPIRICAL MEASURES AND FORMULAS

	F_1	F_2	F_3	F_4	F_5	F_6	F_7	F_8	F_9	F_{10}	F_{11}	F_{12}	F_{13}	F_{14}	F_{15}	F_{61}
C_1	703	885	.730	757	.730	.740	762	.774	773	.732	.766	795	837	.772	730	.810
C_2	811	769	573	.570	535	528	762	486	744	.461	536	.649	714	.515	632	.754
C_3	761	865	761	782	.887	884	821	.854	.833	.847	.908	.876	952	.795	762	884
C_T	859	.955	797	815	839	839	.892	.831	895	.806	.862	894	962	.805	.823	929
I_1	625	637	.734	718	486	498	644	655	645	.589	527	634	472	700	.798	.662
I_2	898	828	923	921	797	799	.914	788	915	.773	776	.893	824	.873	866	.878
I_3	665	787	833	850	828	837	757	925	.777	.891	.864	857	799	.880	.845	.816
I_T	828	.858	947	948	.816	825	.879	905	.889	870	838	.910	807	.938	.952	.897
$C_T I_T$	883	965	878	.895	841	845	.920	875	924	.845	.868	927	954	.866	901	.953

NOTE: An explanation of the symbols used in this table may be found in Appendix I, p 68.

intrusive word scores performed even more impressively than the cloze scores with respect to agreement with the formulas indices Most correlations were in the high eighties and six r coefficients exceeded 90 Interestingly enough, F_{16} (Coleman and Liau, 1975), which was originally calibrated to cloze test scores of university students, was one of the best predictors of the combined intrusive word scores (rho = 952/, r = . .897). Furthermore, the combined scores of the two empirical measures correlated higher than 80 with all formulas, the majority of these correlations being above 85 (rho and r)

Those formulas which proved to be the best predictors of the empirical measures (rho and r = 90 or more) were F_2 (Gray and Leary, 1935), F_{13} (Lorge, 1959), and F_{16} (Coleman and Liau, 1975) F_7 (Farr, Jenkins and Paterson, 1951), F_9 (Gunning revised, 1958) and F_{12} (Wheeler and Smith, 1954) also correlated very well with the combined empirical measures (rho = .875/ r = higher than 90) Among these six formulas certain similarities can be observed (see Table 10) First of all, each of them incorporated some indicator of lexical sophistication in the form of a count of "hard" words, i e , words not on a list of elementary vocabulary, or, alternately, a measure of word length (either the number of polysyllabic words per hundred words or the number of letters per hundred words Second, they all contained some measure of sentence length, usually the average number of

TABLE 10

VARIABLES INCORPORATED INTO READABILITY FORMULAS

CATEGORY OF VARIABLE	FORMULAS															
	F_2	F_{13}	F_{16}	F_{12}	F_9	F_7	F_{15}	F_4	F_1	F_3	F_8	F_{11}	F_{14}	F_{10}	F_6	F_5
LEXICON																
Word Length			X_5	X_3	X_4	X_2	X_6	X_1, X_2	X_3	X_1	X_4		X_1	X_7, X_8		
Vocabulary Level	X_9	X_9									X_{11}				X_{10}	X_{10}
SYNTAX																
Sentence Length	X_{12}	X_{12}	X_{13}	X_{12}	X_{12}	X_{12}				X_{12}	X_{12}	X_{12}	X_{13}		X_{12}	X_{12}
Prepositional Phrases	X_{14}	X_{14}														
COHESION																
Personal Pronouns	X_{15}															
Type-token Ratio	X_{16}															

NOTE. The readability formulas are presented from left to right in order of the diminishing value of their product moment correlations with the total scores for both empirical measures (see Table 9, p. 54). An explanation of the symbols used in this table may be found in Appendix I, p. 68.

words per sentence, but, in one case, the number of sentences per hundred words. It is also interesting to note that, of the six formulas being discussed, the two which required that one refer to a word list, the Lorge formula and the Gray and Leary formula, both employed the Dale List of 769 easy words. Also, common to both of these formulas was a count of prepositional phrases.

CONCLUSIONS

The first research question to be addressed by the present investigation concerned the level of agreement between the different readability formulas in the study. In general, this agreement was surprizingly high with correlations usually exceeding .80 and dropping below .70 in only two instances.

The study also proposed to study the reliability of two empirical measures of readability, the cloze and intrusive word procedures. Correlations between the different forms of each measure were found to vary between .446 and .816 while the estimated reliability of the total scores for the cloze procedure was .795 and for the intrusive word procedure, .792. It was felt that inter-form agreement would have been higher and less variable had the tests contained more items and the number of subjects been greater.

Another question investigated in the present study concerned the amount of agreement to be found between the cloze and intrusive word assessments of the readability of the eight passages. It is apparent from the data presented

in Tables 6 and 7 that this agreement is considerable (rho = .696 / r = .746). However, it must be admitted that, on the whole, the agreement between the different formulas was even higher. The explanation for this may lie in the fact that most formulas predict text difficulty from a very limited range of textual features many of which are variations of one another (see Table 10).

The principle aim of this investigation was to determine whether sixteen popular readability formulas would provide the same information about the readability of eight prose passages as would two empirical measures. It was thought that the formulas, being calibrated to first language criteria such as the scores of native speakers on reading tests, might not be appropriate instruments for predicting the scores of second language learners on cloze and intrusive word tests. The results of the experiment reported in this paper would seem to contradict this assumption. The formulas consistently predicted the performance levels of the francophone subjects, with rank order and product moment correlations between formulas and total scores for the two empirical measures generally exceeding .80 (see Tables 8 and 9). Three formulas that did particularly well in this respect were the Gray-Leary (1935), the Lorge (1959) and the Coleman-Liau (1975) equations, all of which correlated with the combined scores of both empirical measures at levels above .90.

The design of the experiment described in this thesis provided an excellent opportunity to assess the performance of the intrusive word procedure No validity studies appear to have been done on this relatively little-known testing technique and yet it offers many of the advantages associated with the more familiar cloze procedure. It allows comprehension to be measured during the reading process rather than after the fact, as in the case of a test comprised of questions on a text Also, like the cloze procedure, it offers to test constructors an objective method for randomly mutilating a text in order to generate test items As indicated above, the data from the present experiment indicates impressive levels of agreement between intrusive word scores and other instruments for measuring and predicting readability (see Tables 6 and 7, for correlations with cloze procedure, as well as Tables 8 and 9, for correlations with formulas) . Further, the reliability of the intrusive word procedure as reflected in inter-form correlations was found to compare favorably with that of the cloze procedure (the mean intercorrelation between forms for the intrusive word and cloze tests were .555 and .563).

SUGGESTIONS FOR FURTHER RESEARCH

A number of topics for further research are suggested by the present study. One possible follow-up investigation would involve replicating the experiment with populations other than Quebec francophone high school students (e.g., non-francophone ESL students or mixed L1 groups) with a view to determining whether the empirical measures would yield the same information about the relative comprehensibility of the test passages when applied to other populations. Another experiment could be conducted with a split population of ESL learners to determine whether advanced students would rate the passages differently from weaker students. Further, texts judged to be easier or more difficult than those selected for the present study could be substituted to see if the agreement found to exist between the formulas and empirical measures in this experiment would be consistent at other levels of readability. Still another suggestion for further research would be the development of a table to show correspondences between gradings by the three formulas which correlated most highly with the empirical measures in this study (Gray-Leary, 1935; Lorge, 1959; Coleman-Liau, 1975) and scores on a standardized test of reading proficiency.

Such a table would, of course, be quite valuable to the ESL instructor who wishes to assess the readability of new materials without resorting to the cloze procedure, or other empirical measures. To develop this table, it would be necessary to conduct an experiment in which subjects would be grouped into several levels of reading ability by their scores on a standardized proficiency test. Then, the three formulas mentioned above could serve as the criteria for the selection of a series of texts representing a broad range of readability levels. The subjects would be required to take cloze tests over the texts so that the range of cloze scores obtained by each proficiency group over each text could be established. Based on this information, a table could be generated to show correspondances between formula indices and the range of cloze scores particular to each level of reading ability. This table would permit the ESL instructor who has assessed his students with the standardized reading test chosen for the proposed experiment to determine the approximate cloze score which his students would obtain for a given text from the formula grading of that text. Further, Harrison's (1980, pp. 89,90, 103-106) definition of cloze criteria for reading comprehension levels could provide the instructor with a valuable guide to interpreting these predicted cloze scores. He/she would then be in a position to decide with some confidence whether the text was suited for his students and, if so, the best way to incorporate it into their study program.

Another promising subject for further research is the intrusive word procedure As was mentioned above, the data collected for this investigation would seem to support the validity of this technique as a measure of readability It is believed, however, that the technique also has potential as a measure of the reading proficiency of individual learners Certainly, it is a technique which deserves more attention than it has received thusfar from researchers and teachers

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APPENDIX I

KEY TO THE SYMBOLS IN THE TABLES

KEY TO THE SYMBOLS IN THE TABLES

A THE EMPIRICAL MEASURES

The following symbols in the tables refer to the two empirical measures, i.e., the cloze and intrusive word procedures

C_1 : average score of subjects on the first form of the cloze test

C_2 : average score of subjects on the second form of the cloze test

C_3 : average score of subjects on the third form of the cloze test

C_T : average score of subjects on all forms of the cloze test

I_1 : average score of subjects on the first form of the intrusive word test

I_2 : average score of subjects on the second form of the intrusive word test

I_3 : average score of subjects on the third form of the intrusive word test

I_T : average score of subjects on all forms of the intrusive word test

$C_T I_T$: average score of subjects on all forms of both empirical measures

B THE FORMULAS

The following symbols refer to the readability indices calculated with formulas proposed by:

F_1 : Johnson (1930)

F_2 : Gray and Leary (1935)

F_3 : Flesch (1943)

F_4 : Flesch revised (Powers, Sumner and Kearl, 1958)

F_5 : Dale-Chall (1948)

F_6 : Dale-Chall revised (Powers, Sumner and Kearl (1958)

F_7 : Farr, Jenkins and Paterson (1951)

F_8 : Gunning (1952)

F_9 : Gunning revised (Powers, Sumner and Kearl (1958)

F_{10} : McElroy (1953)

F_{11} : Spache (1953)

F_{12} : Wheeler and Smith (1954)

F_{13} : Lorge (1959)

F_{14} : Fry (1958)

F_{15} : McLaughlin (1969)

F_{16} : Coleman and Liau (1975)

KEY TO VARIABLES IN FORMULAS

A. VARIABLES RELATED TO LEXICAL SOPHISTICATION

Word length variables

X_1 = number of syllables per 100 words

X_2 = number of monosyllables words per 100 words

X_3 = number of words with two or more syllables per 100 words

X_4 = number of words with three or more syllables per 100 words

X_5 = number of letters per 100 words

X_6 = number of words with three or more syllables per 30 sentences

X_7 = number of words with one or two syllables per sentence

X_8 = number of words with three or more syllables per sentence

Vocabulary level

X_9 = number of different words not on the Dale list of 769 easy words per 100 words (see Appendix VI)

X_{10} = number of different words not on the Dale list of 3,000 easy words per 100 words (see Appendix VI)

X_{11} = number of different words not on the Stone revised word list per 100 words (see Appendix VI)

B VARIABLES RELATED TO SYNTACTIC SOPHISTICATION

Sentence length variables

X_{12} = number of words per sentence

X_{13} = number of sentences per 100 words

Other syntactic variables

X_{14} = number of prepositional phrases per 100 words

C. VARIABLES RELATED TO TEXT COHESION

X_{15} = number of personal pronouns per 100 words

X_{16} = number of different words per 100 words

APPENDIX II

THE FORMULAS

CALCULATION GUIDE FOR SHORT PASSAGES

Since formulas have been constructed to assess books, some adjustments must be made when evaluating short passages.

A. For all counts designed to be performed over 100 words samples: (viz., x_1, x_2, x_3, x_4, x_5, x_9, x_{10}, x_{11}, x_{13}, x_{14}, x_{15} and x_{16}) determine the number of occurrences of the element to be measured in the whole passage, divide, that number by the number of words in the passage and multiply the result of this calculation by 100. For example:

$$x_1 = \frac{\text{no. of syllables in the passage}}{\text{no of words in the passage}} \times 100$$

B To calculate the value of x_6, divide the number of words with three or more syllables by the number of sentences and then multiply by 30.

WORKING DEFINITIONS OF READABILITY

The following symbols will be used to refer to the working definitions which formulas authors have assigned to readability.

R.S = Raw score (reading difficulty).
For some formulas (viz., F_1, F_{10} and F_{12}), the formula itself yields a raw score which can be converted into a grade level through the use of a table of norms. In the present study, the raw scores were not converted.

R.C = Average comprehension score of adults possessing limited reading skills on a multiple-choice reading test (viz., F_2)

R.E = Reading ease.
Some formulas (viz., F_3 and F_7) were designed to measure ease, rather than difficulty, of reading For such formulas, the more readable a text is, the higher is the score assigned to it

R_{50} = Reading grade score of a student who can answer 50 % of McCall-Crabbs' test questions on a passage (viz., F_4, F_5 and F_6).

R.G. = Reading grade level (viz., F_8, F_{11}, F_{13} and F_{15})

C.S. = Estimated cloze score of college undergraduates.

THE FORMULAS

1 Johnson (1930)

$R.S. = X_3$

N.B : A table was presented for converting the raw score, R.S., into grade levels, although the author specified that this table contained only tentative norms

2. Gray and Leary (1935)

$R.C. = 3.774 + .009012\, x_{15} - .01029\, x_9 - .02094\, x_{12} - .01495\, x_{14} - .03313\, x_{16}$

N.B.: This particular formula is a simplified version of Gray and Leary's longer formula.

3. Flesch (1943)

$R.E. = 206.835 - .846\, x_1 - 1.015\, x_{12}$

4. Flesch revised (Powers, Sumner and Kearl : 1958)

$R_{50} = .0455\, x_1 + .0778\, x_2 - 2.2029$

5. Dale / Chall (1948)

$R_{50} = 3.6365 + .1579\, x_{10} + .0496\, x_{12}$

6. Dale / Chall revised (Powers et al. 1958)

$R_{50} = 3.2672 + .1155\, x_{10} + .0596\, x_{12}$

7. Farr, Jenkins and Paterson (1951)

$RIE = 1.599\, x_2 - 1.015\, x_{12} - 31.517$

8. Gunning (1952) - "Fog Index"

$R.G = .4\,(x_4 + x_{12})$

N.B.: For the count of long words (x_4) do not include proper nouns, compounds (combinations of short, easy words) and verb forms which became tri-syllabic by the addition of "ed" or "es".

9. Gunning-revised (Powers et al. 1958)

$R_{50} = 3.0680 + x_4 + .0877\, x_{12}$

10. McElroy (1953)

$R.S = x_7 + 3\, x_8$

N.B. - Instructions are given for converting the raw score, R.S., into a grade level. If R_D is above 20, divide by 2; if R.S. is below 20 substract 2, then divide the result by 2.

11. Spache (1956) with revised word list (1970)

$R.G. = .659 + .082\, x_{11} + .121\, x_{12}$

12. Wheeler and Smith (1954)

$$R.S. = \frac{(x_3)\,(x_{12})}{10}$$

N.B.: A table of norms is presented for converting the raw score into grade levels.

13. Lorge (1959)

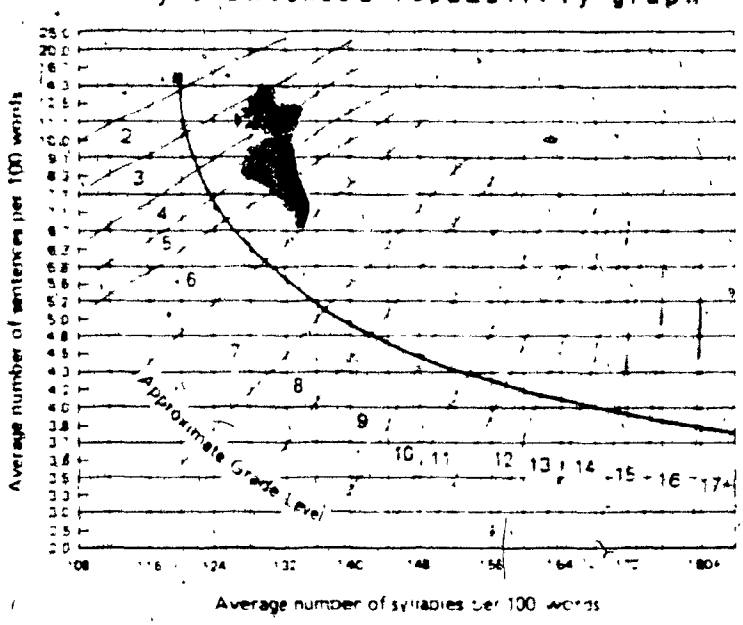
$R.G. = .9892 + .0.43 x_9 + .06 x_{12} + 9.55 x_{14}$

N.B. The author gives detailed instructions for calculating the values of the three variables

14. Fry (1968)

A graph allows one to calculate the grade level of materials (R.G.) based on two variables x_9 and x_{10}

Fry's extended readability graph



15. McLaughlin (1969) Smog Index

$R.G. = x_6 + 3$

N.B.: In this formula, the nearest perfect square to x_6 is used. For example, if the count of polysyllabic words is 95, it is changed to 100 to yield a square root of 10

16. Coleman and Liau (1975)

$C.S. = 141.8401 - .214590 x_5 + 1.079812 x_{13}$

NOTE

Harrison (1980, pp 164-180) reproduces the Star Program, a computer program written in Fortran and designed to analyse passage readability according to several formulas, some of which are found in this study

APPENDIX III

THE PASSAGES

PASSAGE 1

The people of Lallat were scared.
Lallat is a village in India. It is in the jungle.

One day, two small boys who had been playing in the trees ran home crying. They said they had been chased by a tiger.

The men of the village said they would catch the tiger. They had no guns. They had no bows or spears. A trap would have to be used.

The men dug a pit in the ground. When the pit was deep, they put long thin poles over it. On top of the poles they put leaves and grass. When this was done, it looked just like the rest of the ground.

A man could walk on the poles, but a tiger would fall into the pit.

The men waited for a day. Then they went to see if they had caught the tiger. The leaves, grass, and poles were still there. The tiger had not come.

x x x x x x x x x

PASSAGE 2

Smoke rolled out from the mountain-top. But people in the nearby city were sleeping. They did not worry about the old volcano. It had burned out long ago.

Marc, a blind boy, was sleeping by the city wall. He had never been able to see. With him was his dog, Bobo. The boy and the dog had no home. All they had was each other. Bobo was always by Marc's side to take care of him.

On this night the dog smelled smoke. He raised his head and saw fire coming from the mountain-top. He must wake Marc! They must get away. Bobo pushed at the sleeping boy with his nose.

Marc woke up. He could not see the smoke all about him, but he could smell it. He could feel the ground move under his feet. All around him he could hear the cries of people. From far away came a deep sound. Marc knew the old volcano was throwing out fire.

PASSAGE 3

The phone rang at the doctor's office in the zoo. The doctor answered the call.

"I've just come back from a long trip," said the man who was calling.

"And I've brought back a young gibbon. But on the trip back it got very sick. I'd like you to try to make it well."

The doctor asked the man some questions. He asked him what he had fed the gibbon. And with the answer he found out why the little ape was sick. The man had not fed it fresh fruit. And gibbons need fresh fruit to stay healthy.

The doctor told the man to bring the gibbon to the zoo. This he did. He put the ape in a small box and carried it over.

Just one look at the animal told the doctor it was sick. It was so thin that it seemed to be all bones. It was so weak that it could not hold up its head.

x x x x x x x x x

PASSAGE 4

Carmen was fighting for his life. But the fast-moving river was too strong. It would take him right over the falls. There the water dashed over the high cliff and fell hundreds of feet with a roar.

Earlier that afternoon Carmen and three friends had ridden on their bikes to the river. For a while they threw stones into the racing stream. Soon they were tired of this. They decided to try skipping from rock to rock. As Carmen was about to jump, he slipped and fell into the river.

Now the boy was helpless. The fast-moving water was carrying him closer to the falls. Just as Carmen was ready to give up, his hand felt a rock. Quickly the boy grabbed it and held on. It was his only chance. But how long could he hand on?

Many feet away Carmen's friends stood watching. One of them had gone for help. In a matter of minutes firemen were on the spot.

PASSAGE 5

Summer holidays were over. The boat had come to take the family off the island. But the cat was nowhere to be found.

"She'll be alone like Robinson Crusoe on his island," wailed Sally, as the boat pulled away.

The cat was then hurrying home for some food and comfort after a freak adventure at the other end of the island. While she had been asleep beside an old barrel with half its side knocked out, a gust of wind had toppled the barrel over her. The unbroken half had formed a safe roof so that she was neither crushed nor smothered. But it had taken her some time to scratch herself out.

When she reached the cottage, it was perfectly still. The shutters and doors were all closed, the veranda bare of furniture. She climbed to the window, now shuttered, where she so often had been let in. There she meowed loudly.

x x x x x x x x x

PASSAGE 6

When Cuthbert, the turkey, arrived at our base camp, I let him have the run of the garden. It was surrounded by a very tall fence of corrugated iron, too high for him to fly over. However, he thought if he went on trying hard enough he would get over the top. So he practised every day.

From ten yards away Cuthbert would run towards the fence with a fierce expression on his face. He would flag his wings and his heavy body would rise a little. But he never succeeded in getting high enough. And he had never learned to turn suddenly in mid-air.

As he came closer to the fence and realized he was going to crash into it, he would squawk loudly as if to tell the fence to get out of the way. Then there would be a terrible crash. Cuthbert would slide down the iron in a flurry of feather, his long nails making blood-curdling, screeching noises.

PASSAGE 7

One night the rain poured down in torrents and beat steadily against the windows and roof. Inside the shack, Marie and Pierre worked feverishly over a long wooden table on which were set tubes and flasks and a small burner. Their faces were intent as Pierre held up to the light a dish of dark, sticky substance. Suddenly, a stream of water poured down through a new hole in the roof and spattered into the dish. Pierre threw the dish on the table in disgust, sat down on a crude wooden chair, and put his head in his hands.

Marie walked slowly over to Pierre and put her arm round his shoulder. "Never mind. Don't let the rain bother you." Her voice was soothing and gentle. "Why look, our little Irene doesn't mind the rain."

Pierre looked up to see a thin stream of water dripping on his tiny daughter as she slept in her crib next to the table.

x x x x x x x x x

PASSAGE 8

A number of years ago, an Austrian amateur scientist, by the name of Friedrich Gedde, set out with simple equipment to see how ants behave in the presence of fire. He chose an ant-hill in the Austrian Alps for his experiment, and stuck a candle in it. The ants, of the common red variety came at one to investigate the unlighted candle, and after discovering that they could chew the stuff, began to carry particles of it away.

The candle was lighted. All the ants in the vicinity stopped at once in their tasks and looked at the flame. A few approached it and jumped into the fire, probably trying to bite the flame, thereby burning themselves to death. After about a dozen of them had died, the ants changed tactics. Large individuals climbed up on the candle, and at the rim reared themselves on their four hind legs. In this position they sprayed the fire with their abdominal fluid.

Although their legs and antennae were scorched in the process, they took time to aim carefully.

APPENDIX IV

THE CLOZE TESTS

om: _____ Groupe: _____

DIRECTIVES Avec un crayon, remplissez chaque espace vide avec un mot approprié. Ne laissez aucun espace vide. Dans un cas d'incertitude devinez.

EXEMPLE John walked ___to___ school this morning.

IMPORTANT Lisez tout le texte avant de remplir les espaces.
Une forme contractée (ex: don't, she'll) compte pour un mot.
Travaillez vite, mais écrivez lisiblement.
N'écrivez qu'UN SEUL MOT dans chaque espace.

The people of Lallat were scared.

Lallat is a village in India. _____ is in the jungle.

One day, _____ small boys who had been playing _____ the trees ran home crying. They _____ they had been chased by a _____.

The men of the village said _____ would catch the tiger. They had _____ guns. They had no bows or _____. A trap would have to be _____.

The men dug a pit in _____ ground. When the pit was deep, _____ put long thin poles over it. _____ top of the poles they put _____ and grass. When this was done, _____ looked just like the rest of _____ ground.

A man could walk on _____ poles, but a tiger would fall _____ the pit.

The men waited for _____ day. Then they went to see _____ they had caught the tiger. The _____, grass, and poles were still there. The tiger had not come.

Nom: _____ Groupe: _____

DIRECTIVES Avec un crayon, remplissez chaque espace vide avec un mot approprié. Ne laissez aucun espace vide. Dans un cas d'incertitude devinez.

EXEMPLE John walked ___to___ school this morning.

IMPORTANT Lisez tout le texte avant de remplir les espaces.
Une forme contractée (ex: don't, she'll) compte pour un mot.
Travaillez vite, mais écrivez lisiblement.
N'écrivez qu'UN SEUL MOT dans chaque espace.

The people of Lallat were scared.

Lallat is a village in India. It _____ in the jungle.

One day, two _____ boys who had been playing in _____ trees ran home crying. They said _____ had been chased by a tiger.

_____ men of the village said they _____ catch the tiger. They had no _____. They had no bows or spears. _____ trap would have to be used.

_____ men dug a pit in the _____. When the pit was deep, they _____ long thin poles over it. On _____ of the poles they put leaves _____ grass. When this was done, it _____ just like the rest of the _____.

A man could walk on the _____, but a tiger would fall into _____ pit.

The men waited for a _____. Then they went to see if _____ had caught the tiger. The leaves, _____, and poles were still there. The tiger had not come.

Nom _____ Groupe: _____

DIRECTIVES : Avec un cravon, remplissez chaque espace vide avec un mot approprié. Ne laissez aucun espace vide. Dans un cas d'incertitude devinez.

EXEMPLE : John walked ___to___ school this morning.

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Une forme contractée ex: don't, she'll compte pour un mot.
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The people of Lallat were scared.

Lallat is a village in India. It is _____ the jungle.

One day, two small _____ who had been playing in the _____ ran home crying. They said they _____ been chased by a tiger.

The _____ of the village said they would _____ the tiger. They had no guns. _____ had no bows or spears. A _____ would have to be used.

The _____ dug a pit in the ground. _____ the pit was deep, they put _____ thin poles over it. On top _____ the poles they put leaves and _____. When this was done, it looked _____ like the rest of the ground.

_____ man could walk on the poles, _____ a tiger would fall into the _____.

The men waited for a day. _____ they went to see if they _____ caught the tiger. The leaves, grass, _____ poles were still there. The tiger had not come.

TEST DE LECTURE

Nom: _____ Groupe: _____

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N'écrivez qu'UN SEUL MOT dans chaque espace.

Smoked rolled out from the mountain-top. But people in the nearby city were sleeping. _____ did not worry about the old _____. It had burned out long ago'

_____, a blind boy, was sleeping by _____ city wall. He had never been _____ to see. With him was his _____, Bobo. The boy and the dog _____ no home. All they had was _____ other. Bobo was always by Marc's _____ to take care of him.

On _____ night the dog smelled smoke. He _____ his head and saw fire coming _____ the mountain-top. He must wake Marc' _____ must get away. Bobo pushed at _____ sleeping boy with his nose.

Marc _____ up. He could not see the _____ all about him, but he could _____ it. He could feel the ground _____ under his feet. All around him _____ could hear the cries of people. _____ far away came a deep sound.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, remplissez chaque espace vide avec un mot approprié. Ne laissez aucun espace vide. Dans un cas d'incertitude devinez.

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Smoke rolled out from the mountain-top. But people in the nearby city were _____. They did not worry about the _____ volcano. It had burned out long _____.

Marc, a blind boy, was sleeping _____ the city wall. He had never _____ able to see. With him was _____ dog, Bobo. The boy and the _____ had no home. All they had _____ each other. Bobo was always by _____ side to take care of him.

_____ this night the dog smelled smoke. _____ raised his head and saw fire _____ from the mountain-top. He must wake _____! They must get away. Bobo pushed _____ the sleeping boy with his nose.

_____ woke up. He could not see _____ smoke all about him, but he _____ smell it. He could feel the _____ move under his feet. All around _____ he could hear the cries of _____. From far away came a deep sound.

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Marc, a blind boy, was _____ by the city wall. He had _____ been able to see. With him _____ his dog, Bobo. The boy and _____ dog had no home. All they _____ was each other. Bobo was always _____ Marc's side to take care of _____.

On this night the dog smelled _____. He raised his head and saw _____ coming from the mountain-top. He must _____ Marc! They must get away. Bobo _____ at the sleeping boy with his _____.

Marc woke up. He could not _____ the smoke all about him, but _____ could smell it. He could feel _____ ground move under his feet. All _____ him he could hear the cries _____ people. From far away came a deep sound.

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The phone rang at the doctor's office in the zoo. The doctor answered the call.

"I've just come _____ from a long trip," said the _____ who was calling.

"And I've brought _____ a young gibbon. But on the _____ back it got very sick. I'd _____ you to try to make it _____."

The doctor asked the man some _____. He asked him what he had _____ the gibbon. And with the answer _____ found out why the little ape _____ sick. The man had not fed _____ fresh fruit. And gibbons need fresh _____ to stay healthy.

The doctor told _____ man to bring the gibbon to _____ zoo. This he did. He put _____ ape in a small box and _____ it over.

Just one look at _____ animal told the doctor it was _____. It was so thin that it _____ to be all bones. It was _____ weak that it could not hold up its head.

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The doctor asked the man _____ questions. He asked him what he _____ fed the gibbon. And with the _____ he found out why the little _____ was sick. The man had not _____ it fresh fruit. And gibbons need _____ fruit to stay healthy.

The doctor _____ the man to bring the gibbon _____ the zoo. This he did. He _____ the ape in a small box _____ carried it over.

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Carmen was fighting for his life. But the fast-moving river was too strong. It _____ take him right over the falls. _____ the water dashed over the high _____ and fell hundreds of feet with _____ roar.

Earlier that afternoon Carmen and _____ friends had ridden on their bikes _____ the river. For a while they _____ stones into the racing stream. Soon _____ were tired of this. They decided _____ try skipping from rock to rock. _____ Carmen was about to jump, he _____ and fell into the river.

Now _____ boy was helpless. The fast-moving water _____ carrying him closer to the falls. _____ as Carmen was ready to give _____, his hand felt a rock. Quickly _____ boy grabbed it and held on. _____ was his only chance. But how _____ could he hang on?

Many feet _____ Carmen's friends stood watching. One of _____ had gone for help. In a _____ of minutes firemen were on the spot.

Nom: _____ Groupe: _____

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Earlier that afternoon Carmen _____ three friends had ridden on their _____ to the river. For a while _____ threw stones into the racing stream. _____ they were tired of this. They _____ to try skipping from rock to _____. As Carmen was about to jump, _____ slipped and fell into the river. _____ the boy was helpless. The fast-moving _____ was carrying him closer to the _____. Just as Carmen was ready to _____ up, his hand felt a rock. _____ the boy grabbed it and held _____. It was his only chance. But _____ long could he hang on?

Many _____ away Carmen's friends stood watching. One _____ them had gone for help. In _____ matter of minutes firemen were on the spot.

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Summer holidays were over. The boat had come to take _____ family off the island. But the _____ was nowhere to be found.

"She'll _____ all alone like Robinson Crusoe on _____ island," wailed Sally, as the boat _____ away.

The cat was then hurrying _____ for food and comfort after a _____ adventure at the other end of _____ island. While she had been asleep _____ an old barrel with half its _____ knocked out, a gust of wind _____ toppled the barrel over her. The _____ half had formed a safe roof _____ that she was neither crushed nor _____. But it had taken her some _____ to scratch herself out.

When she _____ the cottage, it was perfectly still. _____ shutters and doors were all closed, _____ veranda bare of furniture. She climbed _____ the window, now shuttered, where she _____ often had been let in. There she meowed loudly.

Nom: _____ Groupe: _____

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When she reached _____ cottage, it was perfectly still. The _____ and doors were all closed, the _____ bare of furniture. She climbed to _____ window, now shuttered, where she so _____ had been let in. There she meowed loudly.

TEST DE LECTURE

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When Cuthbert, the turkey, arrived at our base camp, I let him have the run of the garden. It was surrounded by a very _____ fence of corrugated iron, too high _____ him to fly over. However, he _____ if he went on trying hard _____ he would get over the top. _____ he practised every day.

From ten _____ away Cuthbert would run towards the _____ with a fierce expression on his _____. He would flap his wings and _____ heavy body would rise a little. _____ he never succeeded in getting high _____. And he had never learned to _____ suddenly in mid-air.

As he came _____ to the fence and realized he _____ going to crash into it, he _____ squawk loudly as if to tell _____ fence to get out of the _____. Then there would be a terrible _____. Cuthbert would slide down the iron _____ a flurry of feathers, his long _____ making blood-curdling, screeching noises.

TEST DE LECTURE

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From ten yards _____ Cuthbert would run towards the fence _____ a fierce expression on his face. _____ would flap his wings and his _____ body would rise a little. But _____ never succeeded in getting high enough. _____ he had never learned to turn _____ in mid-air.

As he came closer _____ the fence and realized he was _____ to crash into it, he would _____ loudly as if to tell the _____ to get out of the way. _____ there would be a terrible crash. _____ would slide down the iron in _____ flurry of feathers, his long nails _____ blood-curdling, screeching noises.

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One night the rain poured down in torrents. It beat steadily against the windows _____ roof. Inside the shack, Marie and _____ worked feverishly over a long wooden _____ on which were set tubes and _____ and a small burner. Their faces _____ intent as Pierre held up to _____ light a dish of dark, sticky _____. Suddenly, a stream of water poured _____ through a new hole in the _____ and spattered into the dish. Pierre _____ the dish on the table in _____, sat down on a crude wooden _____, and put his head in his _____.

Marie walked slowly over to Pierre _____ put her arm round his shoulder. "_____ mind. Don't let the rain bother _____." Her voice was soothing and gentle. "_____, look, our little Irene doesn't mind _____ rain."

Pierre looked up to see _____ thin stream of water dripping on _____ tiny daughter as she slept in her crib next to the table.

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, remplissez chaque espace vide avec un mot approprié. Ne laissez aucun espace vide. Dans un cas d'incertitude devinez.

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_____ walked slowly over to Pierre and _____ her arm round his shoulder. "Never _____. Don't let the rain bother you." _____ voice was soothing and gentle. "Why, _____, our little Irene doesn't mind the _____."

Pierre looked up to see a _____ stream of water dripping on his _____ daughter as she slept in her crib next to the table.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, remplissez chaque espace vide avec un mot approprié. Ne laissez aucun espace vide. Dans un cas d'incertitude devinez.

EXEMPLE : John walked ___to___ school this morning.

IMPORTANT : Lisez tout le texte avant de remplir les espaces.
Une forme contractée (ex: don't, she'll) compte pour un mot.
Travaillez vite, mais écrivez lisiblement.
N'écrivez qu'UN SEUL MOT dans chaque espace.

One night the rain poured down in torrents. It beat steadily against the windows and roof. _____ the shack, Marie and Pierre worked _____ over a long wooden table on _____ were set tubes and flasks and _____ small burner. Their faces were intent _____ Pierre held up to the light _____ dish of dark, sticky substance. Suddenly, _____ stream of water poured down through _____ new hole in the roof and _____ into the dish. Pierre threw the _____ on the table in disgust, sat _____ on a crude wooden chair, and _____ his head in his hands.

Marie _____ slowly over to Pierre and put _____ arm round his shoulder. "Never mind. _____ let the rain bother you." Her _____ was soothing and gentle. "Why, look, _____ little Irene doesn't mind the rain."

_____ looked up to see a thin _____ of water dripping on his tiny _____ as she slept in her crib next to the table.

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, remplissez chaque espace vide avec un mot approprié. Ne laissez aucun espace vide. Dans un cas d'incertitude devinez.

EXEMPLE : John walked ___to___ school this morning.

IMPORTANT : Lisez tout le texte avant de remplir les espaces.
Une forme contractée (ex: don't, she'll) compte pour un mot.
Travaillez vite, mais écrivez lisiblement.
N'écrivez qu'UN SEUL MOT dans chaque espace.

A number of years ago, an Austrian amateur scientist, by the name of Friedrich Gedde, set out with simple equipment to see how ants behave in the presence of fire. He chose an ant-hill for his _____ and stuck a candle in it. _____ ants, of the common red variety, _____ at once to investigate the unlighted _____, and after discovering that they could _____ the stuff, began to carry particles _____ it away.

Then the candle was _____. All the ants in the vicinity _____ at once in their tasks and _____ at the flame. A few approached _____ and jumped into the fire, probably _____ to bite the flame, thereby burning _____ to death. After about a dozen _____ them had died, the ants changed _____. Large individuals climbed up on the _____, and at the rim reared themselves _____ their hind legs. In this position _____ sprayed the fire with their abdominal _____.

Although their legs and antennae were _____ in the process, they took time _____ aim carefully.

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, remplissez chaque espace vide avec un mot approprié. Ne laissez aucun espace vide. Dans un cas d'incertitude devinez.

EXEMPLE : John walked ___to___ school this morning.

IMPORTANT : Lisez tout le texte avant de remplir les espaces.
Une forme contractée (ex: don't, she'll) compte pour un mot.
Travaillez vite, mais écrivez lisiblement.
N'écrivez qu'UN SEUL MOT dans chaque espace.

A number of years ago, an Austrian amateur scientist, by the name of Friedrich Gedde, set out with simple equipment to see how ants behave in the presence of fire. He chose an ant-hill for his experiment, _____ stuck a candle in it. The _____, of the common red variety, came _____ once to investigate the unlighted candle, _____ after discovering that they could chew _____ stuff, began to carry particles of _____ away.

Then the candle was lighted. _____ the ants in the vicinity stopped _____ once in their tasks and looked _____ the flame. A few approached it _____ jumped into the fire, probably trying _____ bite the flame, thereby burning themselves _____ death. After about a dozen of _____ had died, the ants changed tactics. _____ individuals climbed up on the candle, _____ at the rim reared themselves on _____ hind legs. In this position they _____ the fire with their abdominal fluid.

_____ their legs and antennae were scorched _____ the process, they took time to _____ carefully.

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, remplissez chaque espace vide avec un mot approprié. Ne laissez aucun espace vide. Dans un cas d'incertitude devinez.

EXEMPLE : John walked ___to___ school this morning.

IMPORTANT : Lisez tout le texte avant de remplir les espaces.
Une forme contractée (ex: don't, she'll) compte pour un mot.
Travaillez vite, mais écrivez lisiblement.
N'écrivez qu'UN SEUL MOT dans chaque espace.

A number of years ago, an Austrian amateur scientist, by the name of Friedrich Gedde, set out with simple equipment to see how ants behave in the presence of fire. He chose an ant-hill for his experiment, and _____ a candle in it. The ants, _____ the common red variety, came at _____ to investigate the unlighted candle, and _____ discovering that they could chew the _____, began to carry particles of it _____.

Then the candle was lighted. All _____ ants in the vicinity stopped at _____ in their tasks and looked at _____ flame. A few approached it and _____ into the fire, probably trying to _____ the flame, thereby burning themselves to _____. After about a dozen of them _____ died, the ants changed tactics. Large _____ climbed up on the candle, and _____ the rim reared themselves on their _____ legs. In this position they sprayed _____ fire with their abdominal fluid.

Although _____ legs and antennae were scorched in _____ process, they look time to aim _____.

APPENDIX V

THE INTRUSIVE WORD TESTS

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

The people of Lallat were scared.

Lallat is a smiles village in India. It is in the jungle.

One day, two small began boys who had been playing in the trees ran home their crying. They said it's they had been chased by a tiger.

The men of the made village said they would catch the tiger still. They had no guns. They had no said bows or spears. A trap would have up to be used.

The men dug a pit in the they ground. When the pit was deep, they trap put long men thin poles over it. On top of the poles ran they put leaves and grass. When this was whole done, was it looked just like the rest the of the ground.

A man could walk on a the poles, but a tiger would fall smile into the pit.

The that men waited for a day. The then they went to see if us they had caught the tiger. The leaves, grass, and poles were still there. The tiger had not come.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

The people of Lallat were scared.

Lallat is then a village in India. It is in the to jungle.

One day, two shape small boys who had been playing in the men trees ran home crying. Empty they said they had been chased by a tiger.

The men of the village said they boys would catch the tiger. They streaked had no guns. They seen had no bows or spears. A men trap would have to be used.

The men dug laugh a pit in the ground. When cried the pit was deep, they put long thin poles they over it. On top of the poles they that put leaves and grass. When this very was done, it looked just like some the rest of the ground.

A man could to walk on the poles, but a tiger would was fall into the pit.

The out men waited for a day. Then they went poles to see if they had the caught the tiger. The leaves, grass, and poles were still there. The tiger had not come.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES:	Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.
EXEMPLE :	John walked ~~orange~~ to school this morning. Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.
IMPORTANT :	Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot. Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

The people of Lallat were scared.

Lallat is a village in India. It were is in the jungle.

One day, two small boys again who had been playing in smiles the trees ran home crying. They was said they had been chased by a tiger.

The men of the yellow village said they would catch the tiger. Look they had no guns. They the had no bows or spears. Was a trap would all have to be used.

The men dug a poles pit in the ground. When us the pit was deep, they to put long thin poles over it. On top day of the poles they made put leaves and grass. When began this was done, it looked just like the rest of turned the ground.

A to man could walk on the poles, but a more tiger would fall into the pit.

The men waited for a once day. Then they went to boys see if they had caught the tiger. The leaves, grass, and poles were still there. The tiger had not come.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez!

Smoke rolled out from the mountain-top. But people in tired the nearby city were sleeping. They did they not worry about the old volcano. It was had burned out long ago!

Marc, a blind he boy, was sleeping smoke by the city wall. He had never give been able to see. With him Bobo was his dog, Bobo. The boy and the dog his had no home. All they had was each he other. Bobo was soon always by Marc's side to take care of burned him.

On this night the dog smelled they smoke. He raised his head and that saw towards fire coming from the mountain-top. He must wake Marc! They and must get away. Bobo pushed hand at the sleeping boy with his nose.

Marc woke up. He could not was see the smoke all about if him, but he could smell it. He could up feel the ground move under must his feet. All around him he could hear the cries of people. From far away came a deep sound.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

Smoke rolled out from the mountain-top. But people in the nearby sky city were sleeping. They did not smoke worry about the but old volcano. It had burned out long ago!

Marc, a blind boy, was sleeping at by the city feel wall. He had never fell been able to see. With him was his dog, the Bobo. The boy and burned the dog had no home. All they had was each and other. Bobo was and always by Marc's side the to take care of him.

On this night the clothes dog smelled smoke. He raised his head and tired saw fire coming from man the mountain-top. He must wake Marc! They must get have away. Stones Bobo pushed at the sleeping boy with his nose.

Marc woke up. Him he could not see the smoke all boy's about him, but he could smell it a. He could feel the ground move under his feet boat. All around him he could hear the cries of people. From far away came a deep sound.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

Smoke rolled out from the mountain-top. But people in the would nearby city were sleeping. They did not worry fell about the old the volcano. It had burned out long ago!

Marc, a blind boy, was had sleeping by the could city wall. He had never and been able to see. With by him was his dog, Bobo. The boy and hand the dog had no home. All they put had was each other. Bobo stones was always by Marc's side to take care of him.

On this night the dog smelled he smoke. He raised his head and arms saw fire coming from until the mountain-top. He must wake Marc! They must and get away. Bobo pushed at the sleeping boy with been his nose.

Marc was woke up. He could not see again the smoke all about him, but he could wanted smell it. He could feel the ground move under must his feet. All around him he could away hear the cries of people. From far away came a deep sound.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

The phone rang at the doctor's office in the zoo. The doctor answered the call.

"I've just come back from a trick long trip," said the man animal who was calling. "And I've then brought back a young gibbon. But licked on the trip back it felt got very sick. I'd eat like you to try to make it well."

The doctor asked the cut man some questions. He asked him what cut he had fed the and gibbon. And with the answer he found it out why the little ape fruit was sick. The man the had not fed it fresh fruit. Licked and gibbons need fresh fruit to stay healthy.

The doctor told gibbon the man to bring the gibbon too to the zoo. This he cut did. He put the ape in or a small box and carried it over.

Just one look at the animal told it the doctor it was sick. Trick it was so thin that it seemed the to be all bones. It was so weak that it could not hold up its head.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

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Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

The phone rang at the doctor's office in the zoo. The doctor answered the call.

"I've just come back it from a long trip," said the man who at was calling.

"And I've brought back a young some gibbon. But on the trip had back it got very sick. I'd eat like you to try it to make it well."

The doctor asked two the man some questions. He asked him what clean he had fed at the gibbon. And with the answer he found moved out why the little ape two was sick. The man to had not fed it fresh fruit. And gibbons need fresh up fruit to stay healthy.

The doctor told the man to was bring the gibbon to the two zoo. This he trick did. He put the ape in up a small box and carried it over.

Just moved one look at the animal told the doctor he it was sick. It was so thin a that it seemed to be all bones. It was so weak that it could not hold up its head.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

The phone rang at the doctor's office in the zoo. The doctor answered the call.

"I've just come not back from a long the trip," said the man who was calling.

"And I've brought back it a young gibbon. But on clean the trip back it got a very sick. I'd like you to try orange to make it well."

The doctor asked the man its some questions. He asked him most what he had fed the gibbon. And with just the answer the he found out why the little ape most was sick. The man fruit had not fed it fresh fruit. And gibbons need fresh trick fruit to stay healthy.

The doctor told to the man to bring the gibbon to the zoo. Wash this he did. Then he put the ape in a small moved box and carried it over.

Just one but look at the animal told the doctor a it was sick. It was so thin that a it seemed to be all bones. It was so weak that it could not hold up its head.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

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IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

Carmen was fighting for his life. But hard the fast-moving river was too strong cliff. It would take him right over the falls. There the water from dashed over the high or cliff and fell hundreds of back feet with a roar.

Earlier that afternoon Carmen way and three friends had ridden on their and bikes to the Carmen river. For a while they threw stones into the racing at stream. Soon they way were tired of this. They and decided to try skipping from rock back to rock. As Carmen was about to jump, he one slipped and fell into the self river.

Now the boy was around helpless. The fast-moving water was threw carrying him closer to the one falls. Just as Carmen was ready pull to give up, his hand felt called a rock. Quickly the boy grabbed it and go held on. It was his only chance. But how long could he hang on?

Many feet away Carmen's friends stood watching. One of them had gone for help. In a matter of minutes firemen were on the spot.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

Carmen was fighting for his life. But the fast-moving river was too then strong. It would take him rope right over the falls. There the end water dashed over the high cliff on and fell hundreds of feet with a roar.

Earlier that afternoon Carmen the and three friends had ridden on their tied bikes to the river. For a while they you threw stones into the he racing stream. Soon they were tired the of this. They but decided to try skipping from rock to go rock. As Carmen was about to jump, he slipped will and fell into the river.

Now the boy was helpless. The Cassidy fast-moving water closer was carrying him closer to the falls. Just as Carmen and was ready to give up, his the hand felt a rock. Quickly the under boy grabbed it and held on. It was you his only chance. But more how long could he hang on?

Many feet way Carmen's to friends stood watching. One of them had gone for help. In a matter of minutes firemen were on the spot.

TEST DE LECTURE

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Carmen was fighting for his life. But the fast-moving river will was too strong. It would take him right into over the falls. Here there the water dashed over the high cliff and rope fell hundreds of feet with a roar the.

Earlier that afternoon be Carmen and three friends around had ridden on their bikes to the kept river. For a while they threw stones a into the racing stream. Soon they were tired of a this. They decided to try then skipping from rock to rock. As Carmen a was about to jump, he water slipped and fell into the river.

Now the boy Cassidy's was helpless. The fast-moving water was carrying him way closer to the Carmen falls. Just as Carmen was ready to give up, his began hand felt a rock. Quickly the boy down grabbed it and thirty held on. It was his shore only chance. But how long could he hang on?

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Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

Summer holidays were over. The boat had come squirrel to take the family place off the island. But the cat was squirrel nowhere to be found.

"She'll be cage all alone like Robinson Crusoe on his island," wailed Sally, crash as the boat pulled away.

The cat was then hurrying evening home for food and comfort after soothe a freak adventure his at the other end of the island. Safe while she had been asleep beside an old floor barrel with half firmly its side knocked out, a gust of wind ceiling had toppled the barrel over her. The unbroken I half had formed friend a safe roof so that hammocks she was neither crushed nor smothered. But his it had taken her some time direction to scratch herself out.

When she reached the cottage, it up was perfectly still. The by shutters and doors were all closed, not the veranda bare of furniture. She climbed to the window, now shuttered, where she so often had been let in. There she meowed loudly.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

Summer holidays were over. The boat had come to where take the family off completely the island. But the cat was nowhere to the be found.

"She'll be all alone like and Robinson Crusoe on his island," wailed Sally, as and the boat pulled away.

The cat went was then hurrying home for food and comfort exciting after a freak adventure at the other good end of the island. While and she had been asleep beside an old barrel were with half its side knocked then out, a gust of wind had toppled mouth the barrel over her. The unbroken half had were formed a safe roof so to that she was neither cottage crushed nor smothered. But it had taken her catch some time to scratch herself out.

When she reached the cottage, children's it was perfectly still. The shutters and going doors were all closed, the veranda children's bare of furniture. She climbed to children's the window, now shuttered, where she so often had been let in. There she meowed loudly.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

Summer holidays were over. The pleading boat had come to take the business family off the island. But the and cat was nowhere to be found.

"She'll be all alone like Robinson shed Crusoe on his island," wailed Sally, a as the boat pulled away.

The cat hunger was then hurrying home for food and comfort after but a freak adventure at the discouraged other end of the island. While went she had been asleep beside an old hunger barrel with half its side knocked and out, a gust of wind had tried toppled the barrel over her. The two unbroken half had formed a safe closed roof so that she last was neither crushed nor smothered. But it to had taken her some time to scratch herself a out.

When she reached the catch cottage, it was perfectly still. Cottage the shutters and doors were all closed, day the veranda bare of furniture. She climbed to the window, now shuttered, where she so often had been let in. There she meowed loudly.

TEST DE LECTURE

Nom: _____ Groupe: _____

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IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

When Cuthbert, the turkey, arrived at our base camp, I let him have the run of the garden. It was surrounded by a monkey's very tall fence of corrugated iron, had too high for him to fly box over. However, he thought if he to went on trying hard enough he me would get over the top. So me he practised every day.

From ten yards away Cuthbert would run of towards the fence with a up fierce expression on his face. He found would flap his wings and his friend heavy body would rise a little. But he soothe never succeeded in getting high safe enough. And he had never learned to turn of suddenly in mid-air.

As he came closer to bars the fence and realized he was going to paws crash into it, he would squawk loudly as monkeys if to direction tell the fence to get out of the way up. Then there would be by a terrible crash. Cuthbert would slide bird down the iron in a flurry of feathers, his long nails making blood-curdling, screeching noises.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

EXEMPLE : John walked ~~orange~~ to school this morning.

Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

IMPORTANT : Lisez tout le passage en essayant de le comprendre avant de rayer aucun mot.

Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

When Cuthbert, the turkey, arrived at our base camp, I let him have the run of the garden. It was surrounded by a gripped very tall fence of corrugated iron too Cuthbert high for him to fly over uproar. However, he thought if he went on trying bars hard enough he would get enough over the top. So he practised every day.

From ten yards a away Cuthbert would run towards the tail fence with a fierce expression on his face. He would flap one his wings and friend his heavy body would rise a little. But long he never succeeded in by getting high enough. And he had never learned front to turn suddenly in mid-air.

As he came closer to the fence tangled and a realized he was going to crash into it, he decided would squawk loudly as mind if to tell the fence in to get out of the way flew. Then there would be a had terrible crash. Cuthbert would slide down the bird iron in a flurry of feathers, his long nails making blood-curdling, screeching noises.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

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Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

When Cuthbert, the turkey, arrived at our base camp, I let him have the run of the garden. It was surrounded wakened by a very tall fence by of corrugated iron, too box high for him to fly him over. However, he thought if he went on trying hard enough his he would get mind over the top. So he practised every day.

From ten yards time away Cuthbert would run towards the fence like with a fierce expression on his face. He would flap his feelings wings and his heavy Cuthbert body would rise a the little. But he never mind succeeded in getting high enough. And he the had never learned to turn in suddenly in mid-air.

As he came closer to in the fence and up realized he was going to soothe crash into it, he would squawk loudly as roost if to tell cage the fence to get out of the way. Then safe there would be a terrible crash. Cuthbert would slide down the iron in a flurry of feathers, his long nails making blood-curdling, screeching noises.

TEST DE LECTURE

Nom: _____ Groupe: _____

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Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

One night the rain poured down in torrents. It beat Marie steadily against the windows and roof. Inside the shack, the Marie and Pierre worked feverishly is over a long wooden table on earn which were set tubes do and flasks and a he small burner. Their faces were intent as you Pierre held up to the light a dish said of dark, sticky substance. Suddenly, said a stream of water like poured down through a new hole in the are roof and spattered there into the dish. Pierre threw the dish on the had table in disgust, sat down on always a crude wooden chair you, and put his head in his hands.

Marie walked slowly didn't over to Pierre and me put her arm round his shoulder. "Never mind. Don't a let the rain bother you." Her disturb voice was soothing and what gentle. "Why, look, our little Irene doesn't mind the rain."

Pierre looked up to see a thin stream of water dripping on his tiny daughter as she slept in her crib next to the table.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

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Dans l'exemple, le mot "orange" est rayé car il est nettement superflu.

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One night the rain poured down in torrents. It beat low steadily against the windows and roof. Inside the shack up, Marie and Pierre worked feverishly over a without long wooden table on had which were set tubes and off flasks and a small burner.

Their faces were rolled intent as Pierre work held up to the light a to dish of dark, sticky substance. Suddenly, a you stream of water poured down through always a new hole in the spite roof and spattered into the dish. Pierre threw chemical the dish on the table in disgust, sat down dish on bother a crude wooden chair, and put his head in baby his hands.

Marie it walked slowly over to Pierre and put her rain arm round his shoulder. "Never mind! Don't let I the rain bother you." Her voice to was soothing and gentle. "Why, look, their our little Irene doesn't mind the rain."

Pierre looked up to see a thin stream of water dripping on his tiny daughter as she slept in her crib next to the table.

TEST DE LECTURE

Nom: _____ Groupe: _____

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Marie walked slowly the over to Pierre always and put her arm round his shoulder. "Never mind. Don't am let the rain bother you." Her our voice was baby's soothing and gentle. "Why, look, our little Irene doesn't mind the rain."

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TEST DE LECTURE

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Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

A number of years ago, an Austrian amateur scientist, by the name of Friedrich Gedde, set out with simple equipment to see how ants behave in the presence of fire. He those chose an ant-hill for his experiment, and be stuck a candle in it. The ants, procedure of the common red variety, came bury at once to investigate the unlighted candle fires, and after discovering that they could they chew the stuff, began to went carry particles of it away.

Then the quite candle was lighted. All the ants in the vicinity stopped probably at once in their all tasks and looked at the flame it. A few not approached it and jumped into time the fire, probably trying to bite damage the flame, thereby burning themselves to death. After about a as dozen of them lead had died, the ants changed tactics. Large individuals climbed soaked up on the candle, and at the meanwhile rim reared themselves on their this hind legs. In this position they sprayed the do fire with their abdominal fluid.

Although their legs and antennae were scorched in the process, they took time to aim carefully.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

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Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

A number of years ago, an Austrian amateur scientist, by the name of Friedrich Gedde, set out with simple equipment to see how ants behave in the presence of fire. He chose an ant-hill for fabulous his experiment, and stuck a candle in better it. The ants, of the common took red variety, came at once to investigate the they unlighted candle, and after to discovering that they could chew the as stuff, began to carry particles of it that away.

Then the American candle was lighted. All the ants in the their vicinity stopped at once in their in tasks and looked at the flame. A soaked few approached it and probably jumped into the fire, probably fight trying to bite the flame, thereby burning themselves to second death. After about a dozen doing of them had back died, the ants changed tactics. Large individuals for climbed up on the candle, and at the dead rim reared themselves on their hind legs. Although in this position better they sprayed the fire with their abdominal fluid.

Although their legs and antennae were scorched in the process, they took time to aim carefully.

TEST DE LECTURE

Nom: _____ Groupe: _____

DIRECTIVES: Avec un crayon, rayez le seul mot dans chaque groupe de cinq mots soulignés qui est nettement superflu et qui n'a aucun sens dans le contexte du texte.

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Travaillez vite. Ne vous arrêtez pas longtemps sur un item. Ne rayez qu'un seul mot dans chaque groupe de cinq mots. Répondez à tout item. Dans un cas d'incertitude, devinez.

A number of years ago, an Austrian amateur scientist, by the name of Friedrich Gedde, set out with simple equipment to see how ants behave in the presence of fire. He ants chose an ant-hill for his experiment repeated, and stuck a candle in it. The ants, relighted of the common red variety, minutes came at once to investigate it the unlighted candle, and after discovering ants that they could chew after the stuff, began to carry particles an of it away.

Then the candle was a lighted. All the ants the in the vicinity stopped at repaired once in their tasks and looked at the tried flame. A few approached damage it and jumped into the fire, probably trying to second bite the none flame, thereby burning themselves to death. After dried about a dozen of them had died, the ants hardly changed tactics. Large was individuals climbed up on the candle, and at but the rim reared themselves on their dried hind legs. In this position they sprayed the fire with their abdominal fluid.

Although their legs and antennae were scorched in the process, they took time to aim carefully.

APPENDIX VI

WORD LISTS

DALE'S 769 WORD LIST

a
about
above
across
act
afraid
after
afternoon
again
against
ago
air
all
almost
alone
along
already
also
always
am
American
an
and
animal
another
answer
any
anything
apple
are
arm
around
as
ask
at
away
baby
back
bad
bag
ball
band
bank
basket
be
bear
beat
beautiful
because
bed
bee
been
before
began
begin
behind
being
believe
bell
belong
beside
best
better
between
big
bill
bird
bit
black
bless
blind
blood
blow
blue
board
boat
body
bone
book
born
both
bottom
bow
box
boy
branch
brave
bread
break
breakfast
bridge
bright
bring
broken
brother
brought
brown
build
building
built
burn
busy
but
butter
buy
by
cake
call
came
can
cap
captain
car
care
careful
carry
case
catch
cause
cent
center
chair
chance
change
chief
child
children
choose
Christmas
church
circle
city
class
clean
clear
clock
close
cloth
clothes
cloud
coal
coat
cold
color
come
coming
company
cook
cool
corn
corner
cost
could
count
country
course
cover
cow
cried
cross
crowd
crown
cry
cup
cut
dance
dark
day
dead
dear
deep
did
die
different
dinner
do
doctor
does
dog
done
don't
door
double
down
draw
dream
dress
drink
drive
drop
dry
dust
each
ear
early

earth
east
easy
eat
edge
egg
eight
either
else
end
England
English
enough
even
evening
ever
every
everything
except
expect
eye
face
fair
fall
family
fancy
far
farm
farmer
fast
fat
father
feed
feel
feet
fell
fellow
felt
fence
few
field
fight
fill
find
fine
finger
finish
fire
first
fish
fit
five
fix
floor
flower
fly
follow
food
foot
for
forget
forth
found
four
fresh
friend
from
front
fruit
full
game
garden
gate
gave
get
gift
girl
give
glad
glass
go
God
going
gold
golden
gone
good
got
grain
grass
gray
great
green
grew
ground
grow
guess
had
hair
half
hall
hand
hang
happy
hard
has
hat
have
he
head
hear
heard
heart
heavy
help
her
here
herself
hide
high
hill
him
himself
his
hold
hole
home
hope
horse
hot
house
how
hundred
hunt
hurry
hurt
I
ice
if
in
Indian
instead
into
iron
is
it
its
jump
just
keep
kept
kill
kind
king
kiss
knee
knew
know
lady
laid
lake
land
large
last
late
laugh
lay
lead
learn
leave
left
leg
lesson
let
letter
lie
lift
light
like
line
lion
lips
listen
little
live
load
long
look
lost
lot
loud
love
low
made
mail
make
man
many
march
mark

market	neighbor	own	ready	send
matter	neither	page	real	sent
may	nest	paint	reason	serve
me	never	pair	red	set
mean	new	paper	remember	seven
measure	New York	part	rest	several
meat	next	party	rich	shake
meet	nice	pass	ride	shall
men	night	path	right	shape
met	nine	pay	ring	she
middle	no	pen	river	sheep
might	noise	people	road	shine
mile	none	pick	rock	ship
milk	noon	picture	roll	shoe
mill	nor	piece	roof	shop
mind	north	place	room	short
mine	nose	plain	rose	should
minute	not	plant	round	shoulder
miss	note	play	row	show
money	nothing	please	run	shut
month	now	point	said	sick
moon	number	poor	sail	side
more	oak	post	salt	sign
morning	ocean	pound	same	silk
most	of	present	sand	silver
mother	off	press	sat	sing
mountain	office	pretty	save	sir
mouth	often	pull	saw	sister
move	old	put	say	sit
Mr.	on	quarter	school	six
Mrs.	once	queen	sea	size
much	one	quick	season	skin
music	only	quiet	seat	sky
must	open	quite	second	sleep
my	or	race	see	slow
myself	other	rain	seed	small
name	our	ran	seem	smile
near	out	rather	seen	smoke
neck	outside	reach	self	snow
need	over	read	sell	so

soft
sold
soldier
some
something
sometime
song
soon
sound
south
space
speak
spot
spread
spring
square
stand
star
start
station
stay
step
stick
still
stone
stood
stop
store
storm
story
straight
street
strike
strong
such
sugar
suit
summer
sun
suppose

sure
surprise
sweet
table
tail
take
talk
tall
taste
teach
teacher
tear
tell
ten
than
thank
that
the
their
them
then
there
these
they
thick
thin
thing
think
this
those
though
thought
thousand
three
through
[illegible]
[illegible]
till
time
tire (d)

to
today
together
told
tomorrow
tongue
too
took
top
touch
town
trade
train
tree
true
try
turn
twelve
twenty
two
uncle
under
until
up
upon
us
use
valley
very
visit
wait
walk
wall
want
war
warm
was
wash
waste
watch

water
wave
way
we
wear
weather
week
well
went
were
west
what
wheat
wheel
when
where
whether
which
while
white
who
whole
whom
whose
why
wide
wild
will
win
wind
window
wing
winter
wish
with
without
woman
wonder
wood
word

work
world
would
write
wrong
yard
year
yellow
yes
yesterday
yet
you
young
your

DALE'S 3000 WORD LIST

a
able
aboard
about
above
absent
accept
accident
account
ache(ing)
acorn
acre
across
act(s)
add
address
admire
adventure
afar
afraid
after
afternoon
afterward(s)
again
against
age
aged
ago
agree
ah
ahead
aid
aim
air
airfield
airplane
airport
airship
airy
alarm
alike
alive
all
alley
alligator
allow
almost
alone
along
aloud
already
also
always
am
America
American
among
amount
an
and
angel
anger
angry
animal
another
answer
ant
any
anybody
anyhow
anyone
anything
anyway
anywhere
apart
apartment
ape
apiece
appear
apple
April
apron
are
aren't
arise
arithmetic
arm
armful
army
arose
around
arrange
arrive(d)
arrow
art
artist
as
ash(es)
aside
ask
asleep
at
ate
attack
attend
attention
August
aunt
author
auto
automobile
autumn
avenue
awake(n)
away
awful(ly)
awhile
ax

baa
babe
baby(ies)
back
background
backward(s)
bacon
bad(ly)
badge
bag
bake(r)
bakery
baking
ball
balloon
banana
band
bandage
bang
banjo
bank(er)
bar
barber
bare(ly)
barefoot
bark
barn
barrel
base
baseball
basement
basket
bat
batch
bath
bathe
bathing
bathroom
bathtub
battle
battleship
bay
be(ing)
beach
bead
beam
bean
bear
beard
beast
beat(ing)
beautiful
beautify
beauty
became
because
become
becoming
bed
bedbug
bedroom
bedspread
bedtime
bee
beech
beef
beefsteak
beehive
been
beer
beet
before
beg
began
beggar
begged
begin
beginning
begun
behave
behind
believe
bell
belong
below
belt
bench
bend
beneath
bent
berry(ies)
beside(s)
best
bet
better
between
bib
bible
bicycle
bid
big(ger)
bill
billboard
bin
bind
bird
birth
birthday
biscuit
bit
bite
biting
bitter
black
blackberry
blackbird
blackboard
blackness
blacksmith
blame
blank
blanket
blast
blaze
bleed
bless
blessing
blew
blind(s)
blindfold
block
blood
bloom
blossom
blot
blow
blue
blueberry
bluebird
bluejay
blush
board
boast
boat
bob
bobwhite
body(ies)
boil(er)
bold
bone
bonnet
boo
book
bookcase
bookkeeper
boom
boot
born
borrow
boss
both
bother
bottle
bottom
bought
bounce
bow
bowl
bow wow
box(es)
boxcar
boxer
boy
boyhood
bracelet
brain
brake
bran
branch
brass
brave
bread
break
breakfast
breast
breath
breathe
breeze
brick
bride
bridge
bright
brightness
bring
broad
broadcast
broke(n)
brook
broom
brother
brought
brown
brush
bubble
bucket
buckle
bud
buffalo
bug
buggy
build
building
built
bulb
bull
bullet
bum
bumblebee
bump
bun
bunch
bundle
bunny
burn
burst
bury
bus
bush
bushel
business
busy
but
butcher
butt
butter
buttercup
butterfly
buttermilk
butterscotch
button
buttonhole
buy
buzz
by
bye

cab
cabbage
cabin
cabinet
cackle
cage
cake
calendar
calf
call(er)(ing)
came
camel
camp
campfire
can
canal
canary
candle
candlestick
candy
cane
cannon
cannot
canoe
can't
canyon
cap
cape
capital
captain
car
card
cardboard
care

careful
careless
carelessness
carload
carpenter
carpet
carriage
carrot
carry
cart
carve
case
cash
cashier
castle
cat
catbird
catch
catcher
caterpillar
catfish
catsup
cattle
caught
cause
cave
ceiling
cell
cellar
cent
center
cereal
certain(ly)
chain
chair
chalk
champion
chance
change
chap
charge
charm
chart
chase
chatter
cheap
cheat
check
checkers
cheek
cheer
cheese
cherry
chest
chew
chick
chicken
chief
child

childhood
children
chill(y)
chimney
chin
china
chip
chipmunk
chocolate
choice
choose
chop
chorus
chose(n)
christen
Christmas
church
churn
cigarette
circle
circus
citizen
city
clang
clap
class
classmate
classroom
claw
clay
clean(er)
clear
clerk
clever
click
cliff
climb
clip
cloak
clock
close
closet
cloth
clothes
clothing
cloud(y)
clover
clown
club
cluck
clump
coach
coal
coast
coat
cob
cobbler
cocoa
coconut

cocoon
cod
codfish
coffee
coffeepot
coin
cold
collar
college
color(ed)
colt
column
comb
come
comfort
comic
coming
company
compare
conductor
cone
connect
coo
cook(ed)
cook(ing)
cooky(ie)(s)
cool(er)
coop
copper
copy
cord
cork
corn
corner
correct
cost
cot
cottage
cotton
couch
cough
could
couldn't
count
counter
country
county
course
court
cousin
cover
cow
coward(ly)
cowboy
cozy
crab
crack
cracker
cradle

cramps
cranberry
crank(y)
crash
crawl
crazy
cream(y)
creek
creep
crept
cried
croak
crook(ed)
crop
cross(ing)
cross-eyed
crow
crowd(ed)
crown
cruel
crumb
crumble
crush
crust
cry(ies)
cub
cuff
cup
cupboard
cupful
cure
curl(y)
curtain
curve
cushion
custard
customer
cut
cute
cutting

dab
dad
daddy
daily
dairy
daisy
dam
damage
dame
damp
dance(r)
dancing
dandy
danger(ous)
dare
dark(ness)
darling
darn

dart
dash
date
daughter
dawn
day
daybreak
daytime
dead
deaf
deal
dear
death
December
decide
deck
deed
deep
deer
defeat
defend
defense
delight
den
dentist
depend
deposit
describe
desert
deserve
desire
desk
destroy
devil
dew
diamond
did
didn't
die(d)(s)
difference
different
dig
dim
dime
dine
ding-dong
dinner
dip
direct
direction
dirt(y)
discover
dish
dislike
dismiss
ditch
dive
diver
divide

do
dock
doctor
does
doesn't
dog
doll
dollar
dolly
done
donkey
don't
door
doorbell
doorknob
doorstep
dope
dot
double
dough
dove
down
downstairs
downtown
dozen
drag
drain
drank
draw(er)
draw(ing)
dream
dress
dresser
dressmaker
drew
dried
drift
drill
drink
drip
drive(n)
driver
drop
drove
drown
drowsy
drug
drum
drunk
dry
duck
due
dug
dull
dumb
dump
during
dust(y)
duty

dwarf
dwell
dwelt
dying

each
eager
eagle
ear
early
earn
earth
east(ern)
easy
eat(en)
edge
egg
eh
eight
eighteen
eighth
eighty
either
elbow
elder
eldest
electric
electricity
elephant
eleven
elf
elm
else
elsewhere
empty
end(ing)
enemy
engine
engineer
English
enjoy
enough
enter
envelope
equal
erase(r)
errand
escape
eve
even
evening
ever
every
everybody
everyday
everyone
everything
everywhere
evil

exact
except
exchange
excited
exciting
excuse
exit
expect
explain
extra
eye
eyebrow

fable
face
facing
fact
factory
fail
faint
fair
fairy
faith
fake
fall
false
family
fan
fancy
far
faraway
fare
farmer
farm(ing)
far off
farther
fashion
fast
fasten
fat
father
fault
favor
favorite
fear
feast
feather
February
fed
feed
feel
feet
fell
fellow
felt
fence
fever
few
fib

fiddle
field
fife
fifteen
fifth
fifty
fig
fight
figure
file
fill
film
finally
find
fine
finger
finish
fire
firearm
firecracker
fireplace
fireworks
firing
first
fish
fisherman
fist
fit(s)
five
fix
flag
flake
flame
flap
flash
flashlight
flat
flea
flesh
flew
flies
flight
flip
flip-flop
float
flock
flood
floor
flop
flour
flow
flower(y)
flutter
fly
foam
fog
foggy
fold
folks

follow(ing)
fond
food
fool
foolish
foot
football
footprint
for
forehead
forest
forget
forgive
forgot(ten)
fork
form
fort
forth
fortune
forty
forward
fought
found
fountain
four
fourteen
fourth
fox
frame
free
freedom
freeze
freight
French
fresh
fret
Friday
fried
friend(ly)
friendship
frighten
frog
from
front
frost
frown
froze
fruit
fry
fudge
fuel
full(y)
fun
funny
fur
furniture
further
fuzzy

gain
gallon
gallop
game
gang
garage
garbage
garden
gas
gasoline
gate
gather
gave
gay
gear
geese
general
gentle
gentleman
gentlemen
geography
get
getting
giant
gift
gingerbread
girl
give(n)
giving
glad(ly)
glance
glass(es)
gleam
glide
glory
glove
glow
glue
go(ing)
goes
goal
goat
gobble
God(g)
godmother
gold(en)
goldfish
golf
gone
good(s)
good-by(bye)
good-looking
goodness
goody
goose
gooseberry
got
govern
government

gown
grab
gracious
grade
grain
grand
grandchild
grandchildren
granddaughter
grandfather
grandma
grandmother
grandpa
grandson
grandstand
grape(s)
grapefruit
grass
grasshopper
grateful
grave
gravel
graveyard
gravy
gray
graze
grease
great
green
greet
grew
grind
groan
grocery
ground
group
grove
grow
guard
guess
guest
guide
gulf
gum
gun
gunpowder
guy

ha
habit
had
hadn't
hail
hair
haircut
hairpin
half
hall
halt

ham
hammer
hand
handful
handkerchief
handle
handwriting
hang
happen
happily
happiness
happy
harbor
hard
hardly
hardship
hardware
hare
hark
harm
harness
harp
harvest
has
hasn't
haste(n)
hasty
hat
hatch
hatchet
hate
haul
have
haven't
having
hawk
hay
hayfield
haystack
he
head
headache
heal
health(y)
heap
hear(ing)
heard
heart
heat(er)
heaven
heavy
he'd
heel
height
held
hell
he'll

hello
helmet
help(er)
helpful
hem
hen
henhouse
her(s)
herd
here
here's
hero
herself
he's
hey
hickory
hid
hidden
hide
high
highway
hill
hillside
hilltop
hilly
him
himself
hind
hint
hip
hire
his
hiss
history
hit
hitch
hive
ho
hoe
hog
hold(er)
hole
holiday
hollow
holy
home
homely
homesick
honest
honey
honeybee
honeymoon
honk
honor
hood
hoof
hook
hoop
hop

hope(ful)
hopeless
horn
horse
horseback
horseshoe
hose
hospital
host
hot
hotel
hound
hour
house
housetop
housewife
housework
how
however
howl
hug
huge
hum
humble
hump
hundred
hung
hunger
hungry
hunk
hunt(er)
hurrah
hurried
hurry
hurt
husband
hush
hut
hymn

I
ice
icy
I'd
idea
ideal
if
ill
I'll
I'm
important
impossible
improve
in
inch(es)
income
indeed
Indian
indoors
ink
inn
insect
inside
instant
instead
insult
intend
interested
interesting
into
invite
iron
is
island
isn't
it
its
it's
itself
I've
ivory
ivy

jacket
jacks
jail
jam
January
jar
jaw
jay
jelly
jellyfish
jerk
jig
job
jockey
join
joke
joking
jolly
journey
joy(ful)
joyous
judge
jug
juice
juicy
July
jump
June
junior
junk
just

keen
keep
kept
kettle
key
kick
kid
kill(ed)
kind(ly)
kindness
king
kingdom
kiss
kitchen
kite
kitten
kitty
knee
kneel
knew
knife
knit
knives
knob
knock
knot
know
known

lace
lad
ladder
ladies
lady
laid
lake
lamb
lame
lamp
land
lane
language
lantern
lap
lard
large
lash
lass
last
late
laugh
laundry
law
lawn
lawyer
lay
lazy
lead
leader
leaf
leak
lean
leap
learn(ed)
least
leather
leave(ing)
led
left
leg
lemon
lemonade
lend
length
less
lesson
let
let's
letter
letting
lettuce
level
liberty
library
lice
lick
lid
lie
life
lift
light(ness)
lightning
like
likely
liking
lily
limb
lime
limp
line
linen
lion
lip
list
listen
lit
little
live(s)
lively
liver
living
lizard
load
loaf
loan
loaves
lock
locomotive
log
lone
lonely
lonesome
long
look
lookout
loop
loose
lord
lose(r)
loss
lost
lot
loud
love
lovely
lover
low
luck(y)
lumber
lump
lunch
lying

ma
machine
machinery
mad
made
magazine
magic
maid
mail
mailbox
mailman
major
make
making
male
mama
mamma
man
manager
mane
manger
many
map
maple
marble
march(M)
mare
mark
market
marriage
married
marry
mask
mast
master
mat
match
matter
mattress
may(M)
maybe
mayor
maypole
me
meadow
meal
mean(s)
meant
measure
meat
medicine
meet(ing)
melt
member
men
mend
meow
merry
mess
message
met
metal
mew
mice
muddle
midnight
might(y)
mile
milk
milkman
mill
miller
million
mind
mine
miner
mint
minute
mirror
mischief
miss(M)
misspell
mistake
misty
mitt
mitten
mix
moment
Monday
money
monkey
month
moo
moon
moonlight
moose
mop
more
morning
morrow
moss
most(ly)
mother
motor
mount
mountain
mouse
mouth
move
movie
movies
moving
mow
Mr., Mrs.
much
mud
muddy
mug
mule
multiply
murder
music
must
my
myself

nail
name
nap
napkin
narrow
nasty
naughty
navy
near
nearby
nearly
neat
neck
necktie
need
needle
needn't
Negro
neighbor
neighborhood
neither
nerve
nest
net
never
nevermore
new
news
newspaper

next
nibble
nice
nickel
night
nightgown
nine
nineteen
ninety
no
nobody
nod
noise
noisy
none
noon
nor
north(ern)
nose
not
note
nothing
notice
November
now
nowhere
number
nurse
nut

oak
oar
oatmeal
oats
obey
ocean
o'clock
October
odd
of
off
offer
office
officer
often
oh
oil
old
old-fashioned
on
once
one
onion
only
onward
open
or
orange
orchard
order
ore
organ
other
otherwise
ouch
ought
our(s)
ourselves
out
outdoors
outfit
outlaw
outline
outside
outward
oven
over
overalls
overcoat
overeat
overhead
overhear
overnight
overturn
owe
owing
owl
own(er)
ox

pa
pace
pack
package
pad
page
paid
pail
pain(ful)
paint(er)
painting
pair
pal
palace
pale
pan
pancake
pane
pansy
pants
papa
paper
parade
pardon
parent
park
part(ly)
partner
party
pass
passenger
past
paste
pasture
pat
patch
path
patter
pave
pavement
paw
pay
payment
pea(s)
peace(ful)
peach(es)
peak
peanut
pear
pearl
peck
peek
peel
peep
peg
pen
pencil
penny
people
pepper
peppermint
perfume
perhaps
person
pet
phone
piano
pick
pickle
picnic
picture
pie
piece
pig
pigeon
piggy
pile
pill
pillow
pin
pine
pineapple
pink
pint
pipe
pistol
pit
pitch
pitcher
pity
place
plain
plan
plane
plant
plate
platform
platter
play(er)
playground
playhouse
playmate
plaything
pleasant
please
pleasure
plenty
plow
plug
plum
pocket
pocketbook
poem
point
poison
poke
pole
police
policeman
polish
polite
pond
ponies
pony
pool
poor
pop
popcorn
popped
porch
pork
possible
post
postage
postman
pot
potato(es)
pound
pour
powder
power(ful)
praise
pray
prayer
prepare
present
pretty
price
prick
prince
princess
print
prison
prize
promise
proper
protect
proud
prove
prune
public
puddle
puff
pull
pump
pumpkin
punch
punish
pup
pupil
puppy
pure
purple
purse
push
puss
pussy
pussycat
put
putting
puzzle

quack
quart
quarter
queen
queer
question
quick(ly)
quiet
quilt
quit
quite

rabbit
race
rack
radio
radish
rag
rail
railroad
railway
rain(y)
rainbow
raise
raisin
rake
ram
ran
ranch
rang
rap
rapidly
rat
rate
rather
rattle
raw
ray
reach
read
reader
reading
ready
real
really
reap
rear
reason
rebuild
receive
recess
record
red
redbird
redbreast
refuse
reindeer
rejoice
remain
remember
remind
remove
rent
repair
repay
repeat
report
rest
return
review
reward
rib
ribbon
rice
rich
rid
riddle
ride(r)
riding
right
rim
ring
rip
ripe
rise
rising
river
road
roadside
roar
roast
rob
robber
robe
robin
rock(y)
rocket
rode
roll
roller
roof
room
rooster
root
rope
rose
rosebud
rot
rotten
rough
round
route
row
rowboat
royal
rub
rubbed
rubber
rubbish
rug
rule(r)
rumble
run
rung
runner
running
rush
rust(y)
rye

sack
sad
saddle
sadness
safe
safety
said
sail
sailboat
sailor

saint
salad
sale
salt
same
sand(y)
sandwich
sang
sank
sap
sash
sat
satin
satisfactory
Saturday
sausage
savage
save
sayings
saw
say
scab
scales
scare
scarf
school
schoolboy
schoolhouse
schoolmaster
schoolroom
scorch
score
scrap
scrape
scratch
scream
screen
screw
scrub
sea
seal
seam
search
season
seat
second
secret
see(ing)
seed
seek
seem
seen
seesaw
select
self
selfish
sell
send
sense

sent
sentence
separate
September
servant
serve
service
set
setting
settle
settlement
seven
seventeen
seventh
seventy
several
sew
shade
shadow
shady
shake(r)
shaking
shall
shame
shan't
shape
share
sharp
shave
she
she'd
she'll
she's
shear(s)
shed
sheep
sheet
shelf
shell
shepherd
shine
shining
shiny
ship
shirt
shock
shoe
shoemaker
shone
shook
shoot
shop
shopping
shore
short
shot
should
shoulder
shouldn't

shout
shovel
show
shower
shut
shy
sick(ness)
side
sidewalk
sideways
sigh
sight
sign
silence
silent
silk
sill
silly
silver
simple
sin
since
sing
singer
single
sink
sip
sir
sis
sissy
sister
sit
sitting
six
sixteen
sixth
sixty
size
skate
skater
ski
skin
skip
skirt
sky
slam
slap
slate
slave
sled
sleep(y)
sleeve
sleigh
slept
slice
slid
slide
sling
slip

slipped
slipper
slippery
slit
slow(ly)
sly
smack
small
smart
smell
smile
smoke
smooth
snail
snake
snap
snapping
sneeze
snow(y)
snowball
snowflake
snuff
snug
so
soak
soap
sob
socks
sod
soda
sofa
soft
soil
sold
soldier
sole
some
somebody
somehow
someone
something
sometime(s)
somewhere
son
song
soon
sore
sorrow
sorry
sort
soul
sound
soup
sour
south(ern)
space
spade
spank
sparrow

speak(er)
spear
speech
speed
spell(ing)
spend
spent
spider
spike
spill
spin
spinach
spirit
spit
splash
spoil
spoke
spook
spoon
sport
spot
spread
spring
springtime
sprinkle
square
squash
squeak
squeeze
squirrel
stable
stack
stage
stair
stall
stamp
stand
star
stare
start
starve
state
station
stay
steak
steal
steam
steamboat
steamer
steel
steep
steeple
steer
stem
step
stepping
stick(y)
stiff
still(ness)

sting
stir
stitch
stock
stocking
stole
stone
stood
stool
stoop
stop
stopped
stopping
store
stories
stork
storm(y)
story
stove
straight
strange(r)
strap
straw
strawberry
stream
street
stretch
string
strip
stripes
strong
stuck
study
stuff
stump
stung
subject
such
suck
sudden
suffer
sugar
suit
sum
summer
sun
Sunday
sunflower
sung
sunk
sunlight
sunny
sunrise
sunset
sunshine
supper
suppose
sure(ly)
surface

surprise
swallow
swam
swamp
swan
swat
swear
sweat
sweater
sweep
sweet(ness)
sweetheart
swell
swept
swift
swim
swimming
swing
switch
sword
swore

table
tablecloth
tablespoon
tablet
tack
tag
tail
tailor
take(n)
taking
tale
talk(er)
tall
tame
tan
tank
tap
tape
tar
tardy
task
taste
taught
tax
tea
teach(er)
team
tear
tease
teaspoon
teeth
telephone
tell
temper
ten
tennis
tent

term
terrible
test
than
thank(s)
thankful
Thanks-giving
that
that's
the
theater
thee
their
them
then
there
these
they
they'd
they'll
they're
they've
thick
thief
thimble
thin
thing
think
third
thirsty
thirteen
thirty
this
tho
thorn
those
though
thought
thousand
thread
three
threw
throat
throne
through
throw(n)
thumb
thunder
Thursday
thy
tick
ticket
tickle
tie
tiger
tight
till
time
tin
tinkle
tiny
tip
tiptoe
tire
tired
'tis
title
to
toad
toadstool
toast
tobacco
today
toe
together
toilet
told
tomato
tomorrow
ton
tone
tongue
tonight
too
took
tool
toot
tooth
toothbrush
toothpick
top
tore
torn
toss
touch
tow
toward(s)
towel
tower
town
toy
trace
track
trade
train
tramp
trap
tray
treasure
treat
tree
trick
tricycle
tried
trim
trip
trolley
trouble
truck
true
truly
trunk
trust
truth
try
tub
Tuesday
tug
tulip
tumble
tune
tunnel
turkey
turn
turtle
twelve
twenty
twice
twig
twin
two

ugly
umbrella
uncle
under
understand
underwear
undress
unfair
unfinished
unfold
unfriendly
unhappy
unhurt
uniform
United States
unkind
unknown
unless
unpleasant
until
unwilling
up
upon
upper
upset
upside
upstairs
uptown
upward
us
use(d)
useful

valentine
valley
valuable
value
vase
vegetable
velvet
very
vessel
victory
view
village
vine
violet
visit
visitor
voice
vote

wag
wagon
waist
wait
wake(n)
walk
wall
walnut
want
war
warm
warn
was
wash(er)
washtub
wasn't
waste
watch
watchman
water
watermelon
waterproof
wave
wax
way
wayside
we
weak(ness)
weaken
wealth
weapon
wear
weary
weather
weave
web
we'd
wedding
Wednesday
wee
weed
week
weep
weigh
welcome
well
we'll
went
were
we're
west(ern)
wet
we've
whale
what
what's
wheat
wheel
when
whenever
where
which
while
whip
whipped
whirl
whisky
whisper
whistle
white
who
who'd
whole
who'll
whom
who's
whose
why
wicked
wide
wife
wiggle
wild
wildcat
will
willing
willow
win
wind(y)
windmill
window
wine
wing
wink
winner
winter
wipe
wire
wise
wish
wit
witch
with
without
woke
wolf
woman
women
won
wonder
wonderful
won't
wood(en)
woodpecker
woods
wool
woolen
word
wore
work(er)
workman
world
worm
worn
worry
worse
worst
worth
would
wouldn't
wound
wove
wrap
wrapped
wreck
wren
wring
write
writing
written
wrong
wrote
wrung

yard
yarn
year
yell
yellow
yes
yesterday
yet
yolk
yonder
you
you'd
you'll
young
youngster
your(s)
you're
yourself
yourselves
youth
you've

STONE'S REVISED WORD LIST

a
able
about
above
across
act
add
afraid
after
afternoon
again
against
ago
air
airplane
alarm
all
almost
alone
along
already
also
always
am
among
an
and
angry
animal
another
answer
any
anyone
anything
appear
apple
are
arm
around
arrow
as
ask
asleep
at
ate
attention
aunt
awake
away

baby
back
bad
bag
ball
balloon
bang
bank
bark
barn
basket
be
bean
bear
beat
beautiful
became
because
become
bed
bee
been
before
began
begin
behind
believe
bell
belong
bend
bent
beside
best
better
between
big
bird
birthday
bit
bite
black
blanket
blew
block
blow
blue
board
boat
book
boot
born
borrow
both
bother
bottle
bottom
bought
bow
box
boy
branch
brave
bread
break
breakfast
breath
brick
bridge
bright
bring
broke
broken
brother
brought
brown
brush
build
bump
burn
bus
busy
but
butter
button
buy
by

cabin
cage
cake
call
came
camp
can
candle
candy
can't
cap
captain
car
card
care
careful
carrot
carry
case
castle
cat
catch
cattle
caught
cause
cent
certain
chair
chance
change
chase
chicken
chief
child
children
church
circle
circus
city
clap
clean
clever
cliff
climb
clock
close
cloth
clothes
clown
coat
cold
color
come
comfortable
company
contest
continue
cook
cool
corner
could
count
country
course
cover
cow
crawl
cream
cry
cup
curtain
cut

Dad
dance
danger
dangerous
dark
dash
daughter
day
dear
decide
deep
desk
did
didn't
die
different
dig
dinner
direction
disappear
disappoint
discover
distance
do
doctor
does
dog
dollar
done
don't
door
down
dragon
dream
dress
drink
drive
drop
drove
dry
duck
during
dust

each
eager
ear
early
earn
earth
easy
eat
edge
egg

eight
eighteen
either
elephant
else
empty
end
enemy
enough
enter
even
ever
every
everything
exact
except
excite
exclaim
explain
eye

face
fact
fair
fall
family
far
farm
farmer
farther
fast
fat
father
feather
feed
feel
feet
fell
fellow
felt
fence
few
field
fierce
fight
figure
fill
final
find
fine
finger
finish
fire
first
fish

five
flag
flash
flat
flew
floor
flower
fly
follow
food
for
forest
forget
forth
found
four
fourth
fox
fresh
friend
frighten
frog
from
front
fruit
full
fun
funny
fur

game
garden
gasp
gate
gave
get
giant
gift
girl
give
glad
glass
go
goat
gone
good
got
grandfather
grandmother
grass
gray
great
green
grew
grin

ground
group
grow
growl
guess
gun

had
hair
half
hall
hand
handle
hang
happen
happiness
happy
hard
harm
has
hat
hate
have
he
head
hear
heard
heavy
held
hello
help
hen
her
here
herself
he's
hid
hide
high
hill
him
himself
his
hit
hold
hole
holiday
home
honey
hop
horn
horse
hot
hour
house

how
howl
hum
hundred
hung
hungry
hunt
hurry
hurt
husband

I
ice
idea
if
I'll
I'm
imagine
important
in
inch
indeed
inside
instead
into
invite
is
it
it's
its

jacket
jar
jet
job
join
joke
joy
jump
just

keep
kept
key
kick
kill
kind
king
kitchen
kitten
knee
knew
knock
know

ladder
lady
laid
lake
land
large
last
late
laugh
lay
lazy
lead
leap
learn
least
leave
left
leg
less
let
let's
letter
lick
lift
light
like
line
lion
list
listen
little
live
load
long
look
lost
lot
loud
love
low
luck
lump
lunch

machine
made
magic
mail
make
man
many
march
mark
market
master

matter
may
maybe
me
mean
meant
meat
meet
melt
men
merry
met
middle
might
mile
milk
milkman
mind
mine
minute
miss
mistake
moment
money
monkey
month
more
morning
most
mother
mountain
mouse
mouth
move
much
mud
music
must
my

name
near
neck
need
needle
neighbor
neighborhood
nest
never
new
next
nibble
nice
night
nine

no
nod
noise
none
north
nose
not
note
nothing
notice
now
number

ocean
of
off
offer
often
oh
old
on
once
one
only
open
or
orange
order
other
our
out
outside
over
owl
own

pack
paid
pail
paint
pair
palace
pan
paper
parade
parent
park
part
party
pass
past
pasture
path
paw
pay

peanut
peek
pen
penny
people
perfect
perhaps
person
pet
pick
picnic
picture
pie
piece
pig
pile
pin
place
plan
plant
play
pleasant
please
plenty
plow
pocket
point
poke
pole
policeman
pond
poor
pop
postman
pot
potato
pound
pour
practice
prepare
present
pretend
pretty
princess
prize
probably
problem
promise
protect
proud
puff
pull
puppy
push

put

queen
queer
quick
quiet
quite

rabbit
raccoon
race
radio
rag
rain
raise
ran
ranch
rang
reach
read
ready
real
red
refuse
remember
reply
rest
return
reward
rich
ride
right
ring
river
road
roar
rock
rode
roll
roof
room
rope
round
row
rub
rule
run
rush

sad
safe
said
sail
sale
salt
same

sand
sang
sat
save
saw
say
scare
school
scold
scratch
scream
sea
seat
second
secret
see
seed
seem
seen
sell
send
sent
seven
several
sew
shadow
shake
shall
shape
she
sheep
shell
shine
ship
shoe
shone
shook
shoot
shop
shore
short
shot
should
show
sick
side
sight
sign
signal
silent
silly
silver
since
sing
sister

sit
six
size
skip
sky
sled
sleep
slid
slide
slow
small
smart
smell
smile
smoke
snap
shift
snow
so
soft
sold
some
something
sometimes
son
song
soon
sorry
sound
speak
special
spend
spill
splash
spoke
spot
spread
spring
squirrel
stand
star
start
station
stay
step
stick
still
stone
stood
stop

store
story
straight
strange
street
stretch
strike
strong
such
sudden
sugar
suit
summer
sun
supper
suppose
sure
surprise
swallow
sweet
swim
swing

table
tail
take
talk
tall
tap
taste
teach
teacher
team
tear
teeth
telephone
tell
ten
tent
than
thank
that
that's
the
their
them
then
there
these
they

thick
thin
thing
think
third
this
those
though
thought
three
threw
through
throw
tie
tiger
tight
time
tiny
tip
tire
to
today
toe
together
told
tomorrow
too
took
tooth
top
touch
toward
tower
town
toy
track
traffic
train
trap
tree
trick
trip
trot
truck
true
trunk
try
turkey
turn
turtle

twelve
twin
two

ugly
uncle
under
unhappy
until
up
upon
upstairs
us
use
usual

valley
vegetable
very
village
visit
voice

wag
wagon
wait
wake
walk
want
war
warm
was
wash
waste
watch
water
wave
way
we
wear
weather
week
well
went
were
wet
what
wheel
when
where
which

while
whisper
whistle
white
who
whole
whose
why
wide
wife
will
win
wind
window
wing
wink
winter
wire
wise
wish
with
without
woke
wolf
woman
women
wonder
won't
wood
word
wore
work
world
worm
worry
worth
would
wrong

yard
year
yell
yellow
yes
yet
you
young
your

zoo