RESEARCH REPORT

FIRST-YEAR READING LEVELS AT THE UNIVERSITY OF ZIMBABWE

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IN A FAST-CHANGING educational situation as in Zimbabwe in recent years, there is much talk of declining standards; but little evidence has been adduced in support of such assertions. Much the same can be said about reading levels at the University of Zimbabwe — a matter of vital concern to the Communication Skills Centre, the University's English language/study skills unit. Much of its effort centres on the comprehension of texts and it is clearly important to know whether or not there is a significant gap between assumed and real reading levels: whether it is useful to use university-level texts as the basis for teaching approaches to comprehension or whether special materials should be selected or produced.

In theory, all incoming students have an acceptable level of language competence, having passed O level English Language, a reputable public examination. In practice, the Communication Skills Centre has to run special courses in English language and language-related skills, and demand for such courses originated in University departments. In addition, the Communication Skills Centre runs its own test to identify those in need. A recent comparison by this writer (McGinley 1985) of the skills tested at O level and those needed at university revealed significant differences.

In an attempt to elicit further information about reading-levels, scripts from the Communication Skills Centre's past entry-tests were examined. These revealed evidence of low reading-comprehension of texts well below university level. The situation therefore suggested the need to investigate reading levels among first-year students in a systematic way.

It was considered important both to get a large sample size and to have optimum testing conditions. These were satisfied by administering the special reading-level test to all incoming first-year students as an addition to the Communication Skills Centre's entry-test, which students take very seriously as failure to pass this test results in their having to attend a course at the Centre. The Communication Skills Centre's test was planned to take about one and a half hours; a further half-hour was given for the reading test and this was adequate.

TEXTS CHOSEN

Two texts were carefully chosen, one from a Cambridge O level English Language past paper. They were chosen so as not to advantage or disadvantage any group of students on account of, for example, specialist content. The university-level text was from Sociology, a subject not commonly taught at secondary level. Because the difficulty of texts can vary so much around the levels chosen, and because it was considered important to space the texts effectively, all possible texts were subjected to a number of text-difficulty indices. (These give an objective measure of difficulty which is usually expressed in reading age — an index of 12, for example, being a text that an average twelve-year old should be able to manage.) Four indices were used and the results from the chosen texts are

tabulated in Table 1. The average reading age for the O level text was 17.1 and that for the university text was 19.55. Assuming students write O level at around 16–17 years and enter university at around 18–19 years, the difference in the level of the texts was considered to be about right. In fact, a university text with an index of 19.55 is relatively easy as the average for such texts is usually higher.

Table 1

INDEX DIFFICULTY OF CHOSEN TEXTS

	Readability tests				Average
	FOG	Fry	Flesch	SMOG	
O Level text	18	16	17.30	*	17.10
University text	20.20	21	19	18	19.55

*Text was too short to calculate this index

APPROACH

Even though the time available for the test was limited to half an hour, it was nevertheless necessary to use a test which was both valid and reliable: testing what it was supposed to be testing and doing so consistently through time. Cloze procedure seemed the most appropriate. Oller (1979, p. 357) says: 'It has been demonstrated many times over that cloze scores are extremely sensitive measures of reading ability.' He also quotes (p. 63) from research by Swain, Lapkin and Barik who conclude that 'the cloze technique has been shown to be a valid and reliable means of measuring second language proficiency.' Harrison (1980, pp. 106, 107) says: 'Cloze procedure correlates highly with formal reading tests. In this sense, it has a high validity...In large scale research cloze results are more reliable [than other tests].' Alderson (1979, p. 220) says: 'Since Taylor (1953) the general consensus of studies into and with the procedure has been that it is a reliable and valid measure of readability and reading comprehension for native speakers of English.' For more on the validity and reliability of cloze procedure, see, for example, Anderson (1971) and Gilliland (1980).

The origins of cloze procedure as a testing approach are relatively recent, around 1953. It was a technique used in testing comprehension among L1 speakers (those to whom English is a first language) and it is now in common use for testing in L2 contexts (where the user's first language is one other than English). It may be contrasted with more traditional language-testing approaches which often test discrete points of usage; cloze procedure tests comprehension of sentences as a whole and, in some cases, inter-sentence and supra-sentence elements within paragraphs. It works simply by deleting every *n*th word in a paragraph; the reader completes the blanks with appropriate words (these need not be the exact ones). The rate of deletion is often taken as every fifth word (see MacGintie 1961), with 20 deletions in a 100-word passage: below that it becomes

too difficult to predict; above that, some research shows that the reader is not necessarily helped (see Harrison 1980 and Harris 1976, who also consider the issue of frequency). Correlation of results with other forms of testing in L1 is high. What evidence there is in L2 context suggests that correlation is good (see Alderson 1971, who quotes six authors in this connection). There is now a vast bibliography on the use of cloze procedure.

STUDENTS TESTED

In order to get as full a picture as possible of changes in reading levels among students coming to the University, the testing was extended to some school-level groups and to some second-year University students. Two 'feeder' schools were identified (those supplying students to the University) and the tests were administered to likely university aspirants ('A' stream O level students). The tests were also given to beginning second-year students in two departments to ascertain the extent to which reading levels improved after one year at the University. A summary of results from all groups together with sample sizes is shown in Table 2.

Table 2

AVERAGE SCORES ON READING TESTS

	Scores (out of 20)		Sample at random
	O level text	University text	
First-year students			
Agriculture	10.93	8.60	30/71
Civil Engineering	10.60	8.09	50/114
Medicine	10.50	8.40	50/62
Science	10.30	7.75	49/99
Arts	9.92	7.64	100/304
Social Science	9.70	7.18	68/142
School students			
School A	9.70	8.90	30/30
School B	8.40	7.40	35/35
Second-year students			
Department A	11.06	10.60	39/39
Department B	10.40	9.67	29/60

Note: A score of 8/20 (40%) = minimum comprehension
A score of 12/20 (60%) = independent reading level

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RESULTS AND CONCLUSIONS

The distribution of scores for each group is presented in the Appendix, with raw scores on the horizontal axis and frequency on the other; this clearly shows the number of students getting a certain score level. Two levels of comprehension are identified: that of 40 per cent called 'instructional level' (or the level of minimum comprehension) at which the reader needs the help of a teacher to attain fuller comprehension; and that of 60 per cent at which the reader is assumed to be at the 'independent reading level'. The figure of 40 per cent is a well-researched one, according to Harrison (1980); the figure of 60 per cent is less well so.

From these results, the following conclusions may be drawn:

O level text: If 60 per cent is the independent reading level, then a minority of first-year students approach that level on the O level text. A small minority do not attain minimum comprehension (40 per cent) and are reading at what might be described as 'frustration level'.

University text: Most students are at or just below minimum comprehension.

Testing at Schools: Some feeder schools may have a higher average reading comprehension than incoming first-year university students.

Testing of 2nd-year University students: By the beginning of the second year at university most students approach assumed first-year reading level.

In general, then, it would appear that because most incoming students have below O level reading comprehension and take one full year at university to attain assumed first-year reading level, there is a three-year gap between the assumed and real reading levels of incoming first-year students.

References

ALDERSON, J.C.   1979   'The cloze procedure and proficiency in English as a foreign language', *TESOL Quarterly*, XIII, 219–27.
ANDERSON, J.   1971   'A technique for measuring reading comprehension and readability', *English Language Teaching*, XXV, 178–82.
GILLILAND, J.   1980   'Readability', in W.A. Gatherer and R.B. Jeffs (eds.), *Language Skills through the Secondary Curriculum* (Edinburgh, Holmes McDougall), 178–87.
HARRIS, D.   1976   'Testing reading comprehension in ESL/EFL: Background and current state of the art', in E.M. Anthony and J.C. Richards (eds.), *Reading: Insights and Approaches* (Singapore, RELC).
HARRISON, C.   1980   *Readability in the Classroom* (Cambridge, Cambridge Univ. Press).
McGINLEY, K.   1985   'Preparing for university: Adequacy/inadequacy of 'O' level English Language competence', *Bulletin of the Associate College Centre* [University of Zimbabwe], XXI, ii, 1–11.
MACGINTIE, W.H.   1961   'Contextual constraint in English prose paragraphs', *Journal of Psychology*, LI, 121–30.
OLLER, J.W.   1979   *Language Tests at School: A Pragmatic Approach* (London, Longman).
TAYLOR, W.   1953   'Cloze procedure: A new tool for measuring readability', *Journalism Quarterly*, XXX, 415–33.
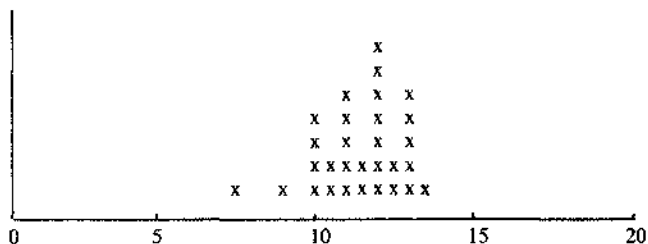
APPENDIX: RESEARCH RESULTS

Key: Vertical axis: frequency
Horizontal axis: score
Instructional level: 8 out of 20
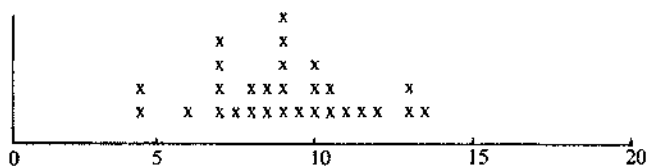Independent reading level: 12 out of 20

FIRST-YEAR STUDENTS
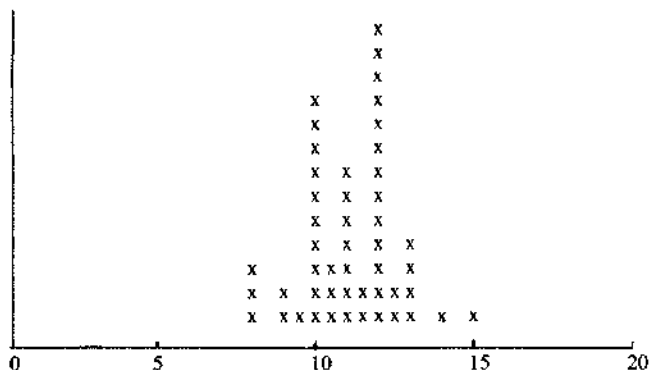
Agriculture

O level text (average 10.93)

University text (average 8.60)*

* 1 paper not attempted

Civil Engineering
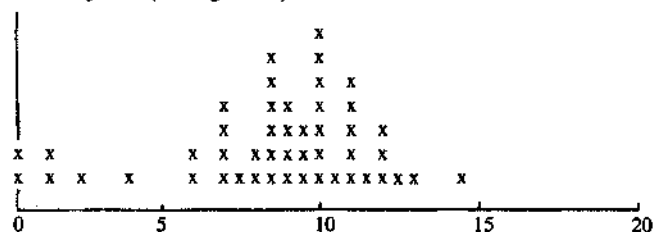
O level text (average 10.60)*

* 1 paper not attempted

Civil Engineering (cont.)
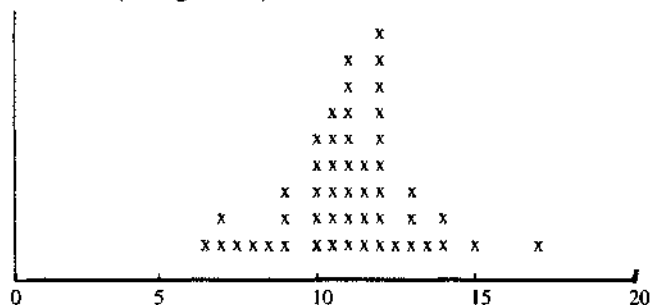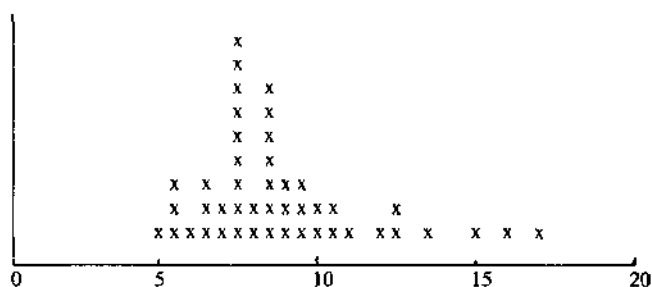
University text (average 8.09)*

```
                              x
                        x     x
                        x     x   x
                  x     x x   x   x
                  x     x x x x   x   x
   x   x          x   x x x x x x   x   x
   x   x   x   x     x   x x x x x x x x x x x x x     x
   0           5              10             15            20
```

*2 papers not attempted

Medicine

O level text (average 10.60)

```
                              x
                        x     x
                        x     x
                       x x    x
                       x x x  x
                       x x x x x
                  x    x x x x x   x
        x         x    x x x x x   x  x
        x x x x x x    x x x x x x x x x   x         x
   0           5              10             15            20
```

University text (average 8.43)*

```
                       x
                       x
                       x  x
                       x  x
                       x  x
                       x  x
             x   x   x   x x x
             x    x x x x x x x x x          x
             x x x x x x x x x x x x x   x x   x     x   x   x
   0           5              10             15            20
```
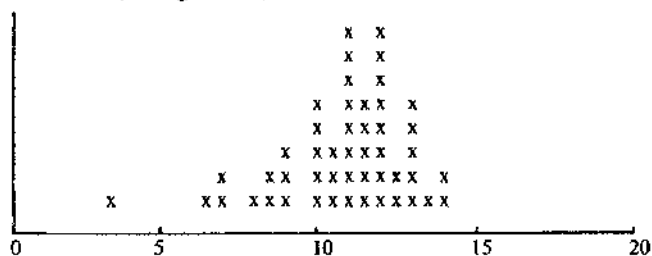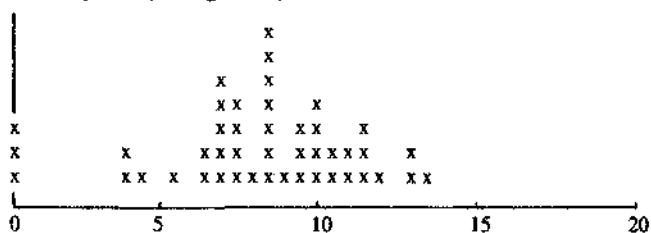
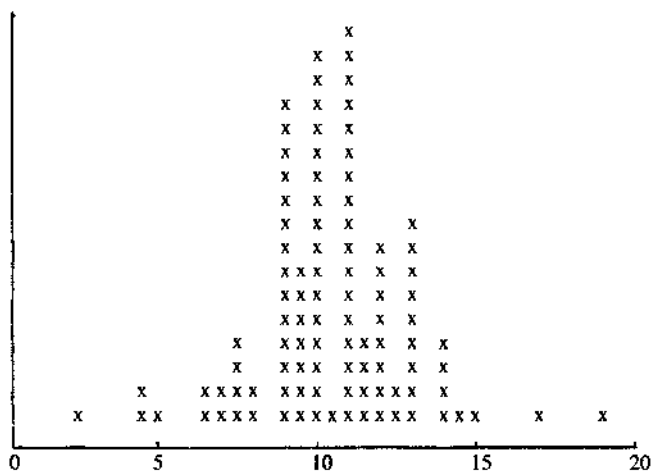* 4 papers not attempted

Science

O level text (average 10.30)

University text (average 7.75)*

* 4 papers not attempted

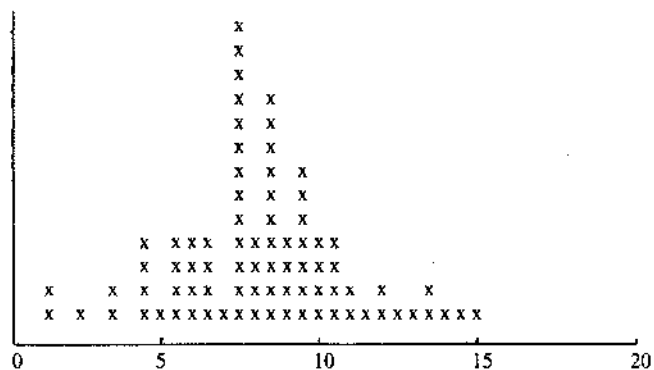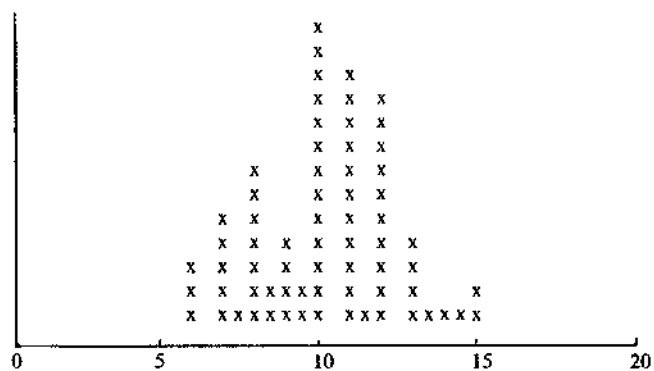*Arts*

O level text (average 9.92)

Arts (cont.)

University text (average 7.64)*
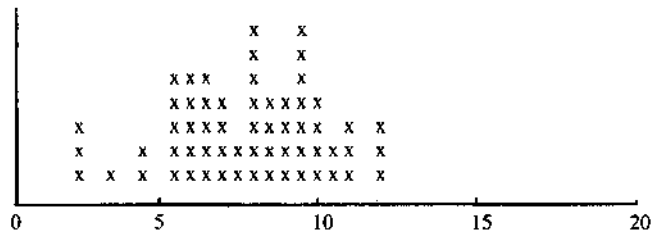

* 18 papers not attempted

Social Sciences

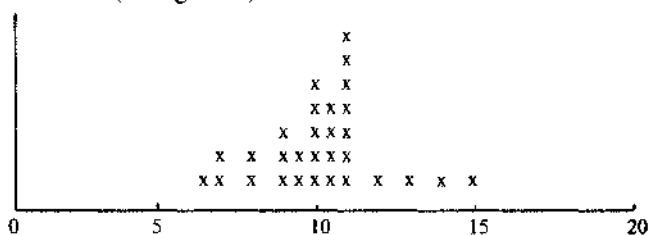O level text (average 9.70)

University text (average 7.18)*

* 7 papers not attempted

SCHOOL STUDENTS

School A

O level text (average 9.70)

```
                             x
                             x
                          x  x
                          x x x
                       x  x x x
              x  x  x x x x x
           x x  x  x x x x x   x   x   x   x
0          5          10          15          20
```

University text (average 9.0)

```
                       x
                       x
                       x
                       x
                       x
                       x  x    x x x
                       x  x x  x x x x x
           x   x x     x  x x x x x x x x
0          5          10          15          20
```
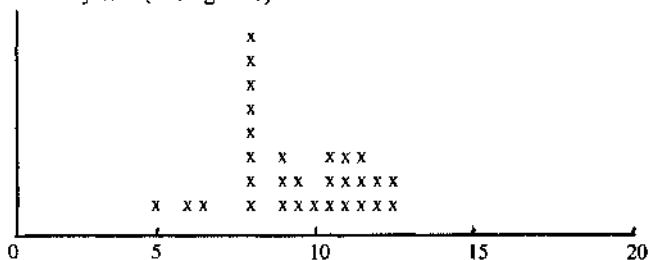
School B

O level text (average 8.40)

```
                       x
                    x  x  x
                 x  x  x  x
                 x  x  x  x x            x
           x x   x  x  x  x x            x
        x  x x   x  x x x  x x x  x  x  x
0          5          10          15          20
```

University text (average 7.40)
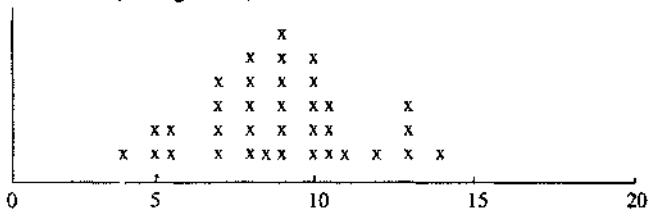
```
                    x
                    x x
           x     x  x x
           x     x  x x
           x x x x  x x     x x x x
      x    x x x  x x x x   x x x x x  x
0          5          10          15          20
```
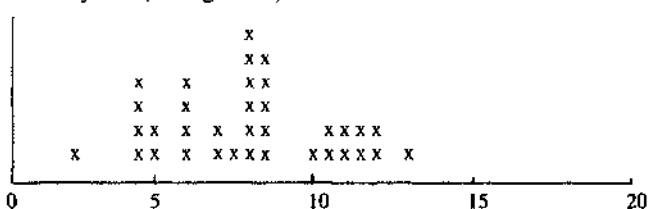
SECOND-YEAR STUDENTS

Department A

O level text (average 11.06)

```
                              x
                              x
                              x       x
                             x x      x
                            x x x    x  x
              x  x x x x x x x  x x x   x
              x x x x x x x x x x x x x x
      |_____
      0         5              10            15         20
```

University text (average 10.60)

```
                                   x
                                   x
                                   x
                                   x
                          x        x
                   x    x    x    x   x x
                   x     x x  x  x x  x x
        x  x x   x  x  x x x x x x x x x x      x x
      |_____
      0         5              10            15         20
```

Department B
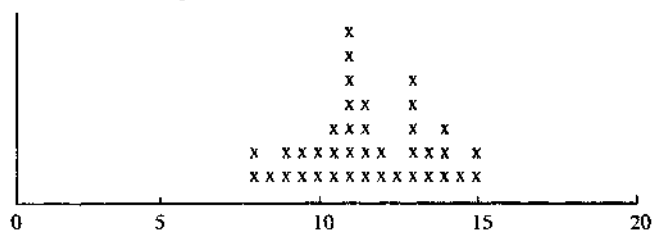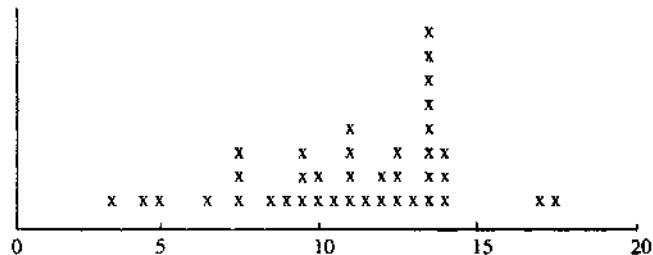
O level text (average 10.40)

```
                              x
                              x
                              x
                              x
                        x  x  x x
                     x  x  x x x x            x
           x       x x x  x  x x x x x x     x x x
      |_____
      0         5              10            15         20
```

University text (average 9.67)

```
                            x
                            x
                       x   x x   x
                x      x  x x x x   x
        x       x  x   x x x x x x x x     x x  x     x
      |_____
      0         5              10            15         20
```