

A Plain Language Study: Do New Zealand Citizens Get A “Fair Go” With Regard To Accessible Consumer Legislation?

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Most readers lack experience in interpreting legal language. At best, they may rely on legal advice in order to understand legal documents and at worst, they may find that inaccessible contracts and legal regulations jeopardise their rights as citizens. Our study focused on the readability of recent consumer legislation in New Zealand. We used a combination of text-focused and reader-focused approaches. The text-focused approach comprised the analysis of extracts from the legislation using statistics generated by standard computer software packages and comparison of the results from three different packages. Using a range of reader-focused approaches including the cloze procedure, paraphrase testing, and scenario questions, we tested extracts from the legislation on target readers. We also sought readers' opinions of and attitudes to the legislation, and interviewed the person who drafted most of the original legislation. Our results suggest that ordinary citizens do not find recent New Zealand consumer legislation to be readily accessible.

Introduction

When Citibank decided to have a public relations firm recast its loan agreement in plain language in 1973, it ranked as the third highest firm in New York for customer litigation. Three years before, a committee that had been appointed to analyse consumer-related problems had discovered that not only consumers, but also lawyers, judges and Citibank's own lending officers were having trouble with the language in the loan document. Ten years after revising the agreement, Citibank reported that it had halved the time needed for staff training and that it had effected a substantial reduction in law suits against customers (Asprey, 1991). The results of that plain language document were far-reaching: by the late 1970s a number of U.S. state laws required consumer documents be written in language that was accessible to the consumers themselves. A comprehensive summary of these is given by Kimble (1992).

A 1977 United States Federal law which set plain language standards for guarantees was followed up by a Presidential Executive Order (Carter, 1978). As a result of this order, the Internal Revenue Service extensively revised the personal income tax form, and the American Institutes for Research (AIR), Carnegie-Mellon University and the consultancy firm of Siegal & Gale were hired to carry out research that would enable the production of more readable and accessible public documents (Felker, 1980).

In June last year, Vice President Gore provided high level support for the use of plain language in government documents with an Executive Memorandum for federal agencies. One of the more notable milestones is the Securities and Exchange Commission's *A Plain English Handbook: How to Create Clear SEC Disclosure Documents*. The Plain Language Action Network (PLAN) website, <http://www.plainlanguage.gov> offers information and resources about and for U.S. government agencies using plain language, as well as plain language developments and resources in the United Kingdom, Canada and Sweden.

In the early 1980s, the British government implemented a plain language policy throughout many departments. After 8 years, 27,000 forms had been abolished and 41,000 re-designed (Eagleson, 1990). The cost saving was estimated at over \$US 20,000,000. The costs of redesigning forms were a mere fraction of the savings.

An Australian Law Commission (Australia, Law Reform Commission of Victoria, 1987) found that recent Australian statutes and documents were confusing, wordy, poorly organised and badly presented. The Commission concluded that the problems were caused by drafting style rather than policy or other requirements and that the clarity of statutes and legal documents could be improved without loss of precision if legal writers followed principles of clear writing. The Victorian government saved \$US 300,000 per year in staff salaries by simplifying just one legal document.

More recently, Philip Knight led an international team in producing a revision of the Human Rights Commission Act for the Ministry of Justice in South Africa (Knight 1996). The results achieved in the redrafting of the South African Human Rights Commission Act and in the significant body of research results detailed by Kimble (1994-1995 and 1996-1997) show that plain language drafting can make understanding and applying legislation easier for both legal experts and ordinary people.

Plain language in New Zealand

In New Zealand, the plain language movement started in the mid 1980s with *Consumer* magazine articles about gobbledegook in consumer business documents such as insurance contracts. The media gave some attention to *Consumer's* Gobbledegook Awards, and a Plain English Campaign headquarters was established. However, a more recent *Consumer* editorial noted that "there is still reluctance to use plain English," (Consumers Institute 1991, p.3) despite the efforts of a number of government organisations, notably the New Zealand Ministry of Consumer Affairs, with its plain English standard forms for credit contracts (New Zealand. Ministry of Consumer Affairs 1988)

Since 1991, a private firm, VandeRoer Design, has promoted the cause of better document design in New Zealand. The firm is affiliated with Siegal & Gale and its work for the New Zealand Ministry of Internal Affairs (Douglas, 1994) and the New Zealand Ministry of Transport (personal communication from Project Leader, VandeRoer Design, 10 July 1996) in re-designing forms has reduced error rates for completion and achieved considerable cost savings for these government agencies.

A recent and significant development for New Zealand is the current rewrite of the Income Tax Act 1976. The team leader for the rewrite project is Elizabeth McAra, an experienced parliamentary counsel from Canada. Harrison and McLaren, the authors of this paper, are currently working with McAra to complete a pilot project for the Inland Revenue Department (IRD) to test the effectiveness of the second stage of the rewrite.

At McAra's instigation, the IRD hosted a tax drafting conference in Auckland, New Zealand, in November, 1996. Included among the conference sessions were presentations from two other teams in Australia and the United Kingdom about their current progress in and approaches to rewriting income tax legislation within their own countries. Philip Knight, who led the revision of the South African Human Rights Commission Act mentioned earlier, was also among the conference delegates.

In 1985, the New Zealand Labour government established the Law Commission, an organisation designed to undertake legal research, write reports and make recommendations to the Minister of Justice. One of the main aims of the Law Commission is to provide practical suggestions for making legislation as understandable and accessible as possible. In 1993, the Law Commission published Report No 27, *The Format of Legislation*, which promoted changes to the standard typography and design of New Zealand statutes that would increase reader comprehension.

Another body with a more direct role in shaping legislation in New Zealand is the Parliamentary Counsel Office (PCO), located close to the Parliamentary legislative chambers in the capital city. The PCO controls the legislative drafting process in New Zealand. The final form and to some extent, the substance of new legislation, depends on the policy and direction of the PCO. Links between the PCO and the Law Commission are tenuous, and the PCO is not required to implement suggestions resulting from research by the Law Commission. Work carried out at the Law Commission is not necessarily in line with work at the PCO.

In June 1996, the Law Commission published two parts of a proposed four part *Legislation Manual: Structure and Style*, intended to provide a single set of guidelines for the use of legal drafters. Like the 1993 report on legislative format, the introduction reiterates the 1985 terms of reference to make legislation “accessible and understandable¹.” The *Manual* goes on to note that the potential users of legislation include not only legal practitioners but also “interest groups and individual members of the public affected by the legislation.” The *Manual* identifies the Consumer Guarantees Act 1993 as legislation needing to reach “a broader group (even if members of that group will resort to it infrequently)” (New Zealand. Law Commission 1996, p.33)².

The *Manual* goes much further than previous Law Commission reports with its emphasis on clear writing: “[W]hoever the audience and whatever the context, there is never any justification for poor organisation, prolixity or unnecessary obscurity” (New Zealand. Law Commission 1996, p.33).

The *Manual's* section on style makes reference at length to the principles of plain language and drafting in plain language. The adoption of the guiding principles and their subsequent effect on New Zealand statutes depend now on the enthusiasm of individual drafters within various government bodies, the drafting policy of those bodies and perhaps more importantly, the policy and direction of the Parliamentary Counsel Office.

Late in 1997, some seven years following its publication, the draft Interpretation Act recommended by Report no. 17 was introduced into Parliament as a Bill for debate.

Ten years on from the establishing of the Law Commission, we wanted to see if the New Zealand approach to making consumer legislation and legal documents more accessible to the target audience had advanced.

The research questions

The Act is an example of recent legislation affecting the lives of all New Zealand citizens. The Act gives consumers certain rights against suppliers or manufacturers when goods and services they have bought prove faulty.

The Minister of Consumer Affairs noted in January 1995 that many retailers were simply ignoring their statutory responsibilities under the Act (Moore 1995, p. A3). In February 1995, the Ministry of Consumer Affairs began a campaign to inform consumers of their rights under the Act (Phillips 1995, p1).

Although few people would be likely to have read the statute in its official form, the Act provides a useful litmus test of current legal drafting style in New Zealand. The present study was designed to address the following questions:

1. How comprehensible to consumers and retail workers is the Act?
2. How do readers' expectations of the comprehensibility of the Act compare with the measured comprehensibility of the legislation?
3. How did those responsible for producing the Act approach their task? What measures did they use to test the comprehensibility of the legislation, and how effective are these methods?

Study Overview

The study was in four parts:

1. *An analysis of the readability* of selected parts of the Act, using standard readability computer software;
2. *Cloze testing* of selected extracts of the Act to determine comprehensibility for a sample of New Zealand consumers;
3. *Paraphrase testing* to determine comprehensibility for retail workers and managers in a particular industry.
4. *An interview* with the parliamentary counsel responsible for drafting the legislation.

The combination of text-based and reader-based approaches provided three sets of results to compare. The reader-based testing, which included cloze, paraphrase and scenario questions, also included an opinion questionnaire aimed at finding out the motivation and attitude of the readers to particular extracts.

Measuring Plain Language through Readability Scores

Readability Scores Method

Readability software was used as a first measure of predicted comprehensibility because such programs are readily available and attractive to writers using word processing software (Chovil 1993). Three different programs were used: *Grammatik IV*, *Microsoft Word 6* and *StyleWriter*. The latter is an Australian edition of an editing and rewriting guide developed by proponents of plain language. All three programs measure average sentence length (ASL) and indicate the proportion of passive constructions in relation to the whole, either as a percentage or as an index. *Grammatik IV* and *Word 6* measures also include Flesch Reading Ease (RE) scores. *Grammatik IV* and *Word 6* scores depend largely on variables such as sentence length and word length, although neither of these variables is a reliable indicator of either complexity or intrinsic interest.

Readability Scores Results

As Table 1 shows, the Flesch Reading Ease (RE) scores for part II of the Act ranged from 12 (“Very difficult”) in the *Grammatik* analysis to 51.7 (“Fairly difficult”) in the *Word 6* analysis. There was also a wide variation in Flesch RE scores calculated for sections 16 through to 24 by *Word 6*. The subsections of section 18 all fell into the category “Difficult,” and understood by 33 percent of adults, according to the *Word 6* readability software. Sub-sections 18(1) and 18(2) (RE score 53.6), the focus for later cloze testing, were predicted to be more difficult than sub-sections 18(3) and (4) (RE score 45), according to Table 2.

Table 1

Statistics for the Consumer Guarantees Act, Part II, from Three Readability Programs

Readability Programs	Passive Index / Percentage	Reading Ease (RE)	Description of Style
<i>Grammatik IV</i>	23	12.0	Very difficult (understood by 4.5% of adult readers)
<i>StyleWriter</i>	86	-	Poor
<i>Word 6</i>	7	51.7	Fairly difficult (understood by 54% of adult readers)

The figures in the Passive Index / Percentage column refer to the number of passive voice constructions in relation to total number of verb constructions within the whole passage. A figure of 23 means that 23% of all the verb constructions are in the passive voice.

Table 2

Word 6 Readability Statistics of Individual Sections of the Consumer Guarantees Act

Sections & Sub-section	Average Sentence Length (ASL)	Passive Index / Percentage	Reading Ease (RE)	Description of Style (Flesch)
18(1) & 18(2)	70.5	0%	53.6	Fairly difficult (understood by 54% of adult readers)
18(3) & 18(4)	138.0	0%	45.0	Difficult (understood by 33% of adult readers)

Word 6 predicted a difference in comprehension difficulty between the first and second parts of section 18. Presumably this difference is based on the substantial difference in average sentence length between the two parts, since Table 1 indicates that there were no passive constructions within section 18. The proportion of passive sentences for Part II as a whole varied from 7 percent as measured by *Word 6* to 23 percent by *Grammatik IV*, and 86 by *StyleWriter’s* passive index. Section 18 contained no passive constructions, according to *Word 6*. However, a manual tally of the passive constructions in section 18 suggested three passives, including “where the failure *can be remedied*”, “a supplier who *has been required*”, and “where the failure *cannot be remedied*, which would give a total of three passive constructions within four sentences or 75 percent.

Even for a less complex technical activity such as counting the number of sentences, there were discrepancies within an individual program. The application of *Word 6* to section 18 as a whole (excluding the title) found two sentences, but when section 18 was considered in two separate parts, *Word 6* counted two sentences in sub-sections 18(1) and 18(2) and one in sub-sections 18(3) and 18(4) a total of three sentences. We counted four sentences in section 18.

We applied the *Word 6* software to gauge the U.S. grade school readability level for the whole of Part II as well as individual sections. The predicted levels varied from 10.7 (Bormuth) to 12.8 (Flesch-Kincaid) to 95.7 (Coleman-Liau). The Coleman-Liau readings fluctuated markedly over individual sections of Part II of the Act, with some grade levels (e.g. 365.1 for section 20 and 223.3 for section 22) clearly meaningless.

Readability scores discussion

The variation in readability software results confirmed the findings of Redish (in Felker, 1980) and Martindale, Koch and Karlinsky (1992). The latter found as many as seven grade levels difference predicted for the same documents (income tax laws and commentaries). As Knight suggested, readability measures are “unreliable estimates of whether a document is easy for readers to understand” (1996, p.12).

The study of professional accountants’ understanding of US tax laws by Martindale and others (1992) suggested that readability formulas would not accurately predict reader comprehensibility where the subject matter was complex. Redish (in Felker, 1980) and Davison and Kantor (1982) doubted the appropriateness of using readability formulas that were specifically developed to measure school age children’s reading grade levels for measuring adult reading comprehension, and the issues of prior knowledge and content complexity are especially relevant here.

The application of the various readability formulas to the Act provided conflicting results, in line with both Redish (in Felker, 1980) and Martindale and others (1992).

Measuring Plain Language through Cloze Testing

The cloze procedure developed by Taylor (1953) and Bormuth (1966, 1967, 1968 and 1975) has been tested by many other researchers including Klare, Sinaiko and Stolurow (1972); Klare (1984 and 1988); Stevens, Stevens and Stevens (1992); and Shaffer, Stevens and Stevens (1993). These studies reinforce the validity of the cloze procedure as a useful means of judging comprehension of a particular text for a particular reader. The various controversies over what type of comprehension the cloze procedure actually measures are beyond the scope of this paper. What is more important is that there is evidence (Taylor, 1953) that the cloze procedure measures the same type of comprehension that readability formulas measure, and thus provides a useful means of comparison.

Stevens, Stevens and Stevens conclude that: “[t]he cloze procedure is preferable ... [to readability formulas] ... because it allows for one to measure how difficult it is *for a given population of adult readers* to read a piece of material” (1992, p.378, authors’ emphasis). Thus, the cloze procedure offered a convenient and administratively straightforward means of measuring target reader comprehension with results that might later be compared with both the computer-generated readability statistics for the same texts and the results of target reader paraphrases and scenario testing.

Cloze testing method

The Northland region of New Zealand is geographically spread out and sparsely populated (population approximately 130,000). The region as a whole has a high Maori³ population (around 28 percent of the total), high unemployment (14 percent of the workforce), and a generally low socio-economic status. At the time of the study, an annual income of \$US 6,850 or less was reported by 42.5 percent of Northland residents (Department of Statistics, 1992). The percentages for Maori and for unemployment were and are roughly twice the national rate, and the annual income was and is the lowest of any region in New Zealand.

Eleven community groups throughout Northland ranging from Work Skills Trainees to Rotary Clubs were approached for volunteers to participate in a study of the reading difficulty of government writing. Almost two-thirds of the participants in the cloze study were female, and the proportions of younger and older participants for this study were greater than in the general population. The percentage of Maori participants in the study (42 percent) was higher than in New Zealand and Northland as a whole, although this can in part be explained by the drawing of three of the eleven sample groups from the Kaitaia and Hokianga districts, where the Maori population is concentrated.

The sample was biased towards tertiary students: Thirty-nine percent of the total compared with 5.3 percent in the total New Zealand population (New Zealand Government Vital Statistics. Ministry of Education 1993 statistics [on line],). However, all the students in the sample for the cloze testing were enrolled in programmes which had no formal pre-requisites or minimum entry level qualifications. The percentage of participants who recorded their occupation as employed at 26 percent was lower than the 1991 Census figure for Northland of 35 percent (New Zealand. Department of Statistics 1992). The level of high school qualifications for the participants was higher than in the general Northland population.

One hundred and five of the completed questionnaires were suitable for analysis. The sample itself was small and not truly representative of either the general Northland or the New Zealand populations. However, the results provide some insights into the impact of government writing on groups of citizens. Being able to understand official documents conferring rights, responsibilities and benefits is of major importance to people who are already disadvantaged in terms of resources and social mobility.

Four clozed extracts made up of two different cloze versions for each half of Section 18 of the Act were presented to participants in the study. Four different sets of cloze testing materials were compiled, numbered and distributed in strict rotation to ensure the maximum chance of coverage for each extract and cloze version. Each extract was stapled to a second sheet inviting the participant to give an opinion rating of the extract under several categories. Participants were permitted to complete the exercise in any order.

Cloze participants were also invited to rate an unclozed extract from the Act (section 17) on a five point scale to determine their familiarity with similar writing and their motivation to read the extract. Finally, they were asked to record their response to an open-ended question asking them to make one suggestion which would make the extract easier to read and understand.

Cloze testing results

Bormuth (1967) provides a model for interpreting cloze percentage scores. A score of 57 percent or more suggests the text will be understood by 90 percent of adult readers; a score of 44 percent or more suggests understanding by 75 percent of adult readers and a score in the range of 41 to 44 percent suggests that the text is within a level Bormuth describes as instructional, meaning that it requires some explanation before being comprehended at an adult level. The Act (mean 38.6 percent and median 35.7 percent) rated below Bormuth’s instructional range of 41 to 44 percent for the 99 participants who completed this section of the exercise. The different versions and extracts produced some differences in cloze scores (see Table 3):

Table 3

Analysis of Participant Cloze Scores for Different Versions of the Consumer Guarantees Act

Consumer Guarantees Act	No ^a	No ^b	Mean	Median	Standard Deviation
Sections 18(1) & 18(2) Version 1	31	0	47.89	51.70	21.27
Sections 18(3) & 18(4) Version 1	20	5	30.14	32.10	17.79
Sections 18(1) & 18(2) Version 2	24	1	42.82	44.60	23.83
Sections 18(3) & 18(4) Version 2	24	4	29.43	26.75	19.05
Combined scores for all versions	99	10	38.60	35.70	22.03

^a“N” refers to the total number of questionnaires returned for each version of the cloze test.

^b“No” refers to the total number of unusable or incomplete questionnaires for each version.

Unsolicited written comments from some participants suggested that they had experienced frustration in completing the cloze procedure tests. Here is an example:

I found that all of the surveys were not easy. They required alot of thinking, and I felt you needed some understanding before filling the gaps... It was frustrated trying to complete the gaps with words...I felt you needed alot of time to complete the survey, it also required patience that I didn’t have at the time. (Participant #102, who scored 7.1 percent on the cloze test.)⁴

Figure 1 compares the percentages of participants who rated the extract 1 or 2 (likely to read), 3 (neutral) and 4 or 5 (unlikely to read). Figure 2 compares the percentages of participants who rated the extract 1 or 2 (easy to read), 3 (neutral) or 4 or 5 (difficult to read): Participants generally anticipated correctly that comprehending the Act would be difficult. Figure 3 shows a degree of correlation between the perceived difficulty of comprehension and readers’ opinions of their motivation to read the extract.

Percentage of Readers

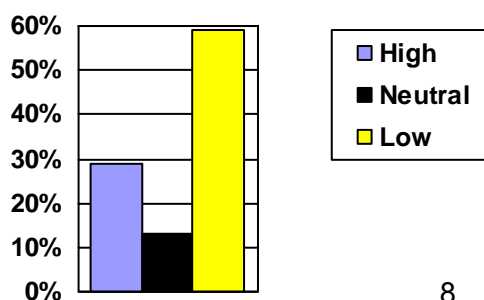


Figure 1. Reader Estimates of Their Motivation to Read the Consumer Guarantees Act.

Percentage of Readers

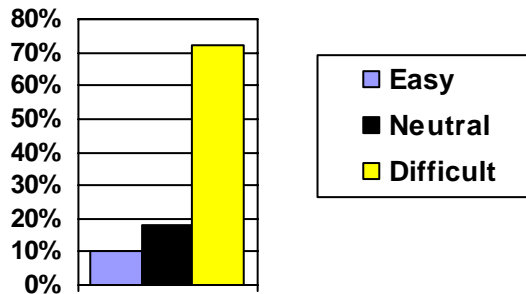


Figure 2. Reader Estimates of the Reading Ease of the Consumer Guarantees Act.

Percentage of Readers

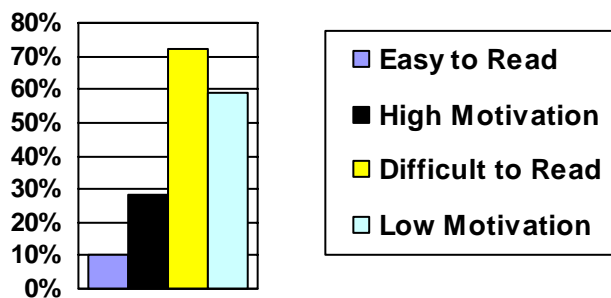


Figure 3. Comparing Reader Opinions of Their Motivation and Reading Ease.

The open-ended question, “Please suggest one change that might make this writing easier to read and understand,” allowed for qualitative responses as to how the comprehensibility of particular examples of government writing might be improved. The Act was one of six public documents on which participants were asked to comment. Of the 298 responses to all the public documents which could be categorised, 127 suggested that simpler terms or words more suitable to the target audience could be used. Of these 127 responses, the majority, (52 percent), were concerned with the Act. Some participants complained about the use of jargon:

Issues in Writing

“The jargon is so intense I lost the message completely.” (Participant 81)

“Speak english. It needs to be plain and simple. I don't understand any of this jargon so can't even do the other page.” (Participant 97)

Formal expressions invoked scorn: “simplify the language ‘in respect of the failure’ no one speaks like that.” (Participant 91). The term “notwithstanding” drew the criticism of several participants:

“The whole thing should be broken down into Plain english. for example - Section 17, who understands that?! Then notwithstanding section 16 - lets face it, who understands those few words? Break it down to plain english.” (Participant 101)

“Notwithstanding is a frightening, turn-off, word - what is wrong with “otherwise” or anyhow . . . ” (Participant 104)

cut out “Notwithstanding, unnecessary verbage (e.g. or servant or agent . . . then verbage in parenthesis . . . ” (Participant 105)

Replace “Notwithstanding.” (Participant 108)

Participant 37 warned: “Use everyday spoken english - things like ‘notwithstanding’ or ‘servant’ draw big ? in my mind. I lose interest VERY quickly.” “The whole sample should be written in *plain* english you just about need a lawyer to undesand this writing” wrote Participant 11. Participant 12 suggested: “By printing in a more basic language for the ordinary People to read and understand.” Participant 7 found “... THE WORDING TOO COMPLEX & HAVE TO CONTINUALLY ASSESS TO WORK OUT WHAT THE WRITER IS TRYING TO SAY. IT COULD BE MUCH MORE SIMPLY WRITTEN.” Participant 29 wrote in a gratuitous comment on the closed Act extract itself: “I CAN WRITE GARBAGE TOO!”

Cloze testing discussion

The analysis of the cloze results showed that some versions of the same extract varied significantly in their ease of comprehension. For instance, participants found the first cloze version of the extract combining sub-sections 18(1) and 18(2) of the Act significantly easier to understand than the second version. The first cloze version for sub-sections 18(1) and 18(2) was also significantly easier for participants to understand than both versions of sub-sections 18(3) and 18(4).

A check of the noun frequency counts for the blank spaces in the cloze extracts to see if there were a greater frequency of nouns as blanks in the more difficult versions (Coleman, 1971) revealed that Sections 18(3) and 18(4) had more nouns as blanks than sections 18(1) and 18(2) and the first version of sections 18(3) and 18(4) had twice as many nouns as blanks as the second version of the same extract. (see Appendix B.) However, this difference between versions did not seem to affect the participant scores for the two versions of sections 18(3) and 18(4), as there was only one percentage point between the means.

The sample for the cloze study was skewed in favour of female, Maori and higher-educated participants. Thus, the results are at best an indicator to be explored further rather than an irrefutable truth for the population. The basic question is, to what extent can the sample means be regarded as indicators of the population means? For the Act, the sample number was 96 and the sample mean was 38.28 percent. Using student's t variable for small samples drawn from a normal population, there is a 95 percent chance that the mean for the main population will be between 33.94 percent and 42.62 percent. In other words, the estimated population mean is likely to be below the minimum of 42 percent regarded by Klare (1988) as necessary for the passage to be read with a 75 percent level of adult comprehension. Applying the interpretation model provided by Bormuth (1967), the estimated mean for the population falls either within or below the instructional range, indicating that the text requires explanation before being comprehended at adult level.

Measuring Plain Language through Paraphrase and Scenario Testing

The purpose of the paraphrase and scenario testing of individual target readers was to allow a more direct and potentially more searching analysis than obtained previously by the cloze testing. Data from these interviews provided a triangulated set of results to compare with the results of the readability software statistics and cloze questionnaires.

Paraphrase and Scenario Method

The models for the paraphrase section of the interviews were Charrow (1988), Chovil (1993), Masson and Waldron (1994), Burnett (1994) and Daniel (1994). The cued-response reading protocol where a reader is asked to stop at pre-determined places and comment on or paraphrase the text offered a useful model for the interviews. Daniel notes that the cued-response reading protocol was especially suitable for poor readers and provided significant information with a minimum of materials and supervisors.

The extracts from the Act that were used in the previous cloze tests were divided into sections corresponding roughly to paragraphs. Following a similar protocol to Charrow (1988) and Chovil (1993), each section or paragraph was divided by white space. Duckworth's (1993) study of employees' understanding and opinions of legislation that governed their actions in the workplace provided the model for the familiarity and opinion questionnaire. The opinion and demographic questions were similar to the ones used in the cloze study. In addition, two problem-scenario questions were devised to test the readers' understanding of the extracts they had paraphrased in relation to a real life application. These scenario questions are included in Appendix D.

Since the problem-scenario questions were based on applying specific sections of the Act to situations involving a hypothetical retail garden centre, the managers of the four largest garden centres in the local area were approached in search of participants to take part in the paraphrase testing. One firm declined to participate; the other three agreed, giving five target readers comprising three managers and two workers from the three firms. The participants' biodata revealed a relatively high level of academic achievement: all but one had achieved a higher school leaving qualification than School Certificate⁵; three had completed or nearly completed a tertiary diploma, and one had a bachelor's degree. The participants' paraphrases, scenario answers and opinions were tape-recorded and their biodata noted during interviews lasting up to one hour.

Participants were asked to read a portion of the original document, broken up into sections as previously described, and to paraphrase each section aloud for the tape recorder. Participants were directed to consider the complete paragraph or section each time, rather than give the meaning of each individual sentence. The purpose of the exercise was to see which particular sections, if any, caused comprehension difficulties for the participants, and if difficulties were obvious, whether they were similar to those difficulties identified by the readability software analysis of the text and the cloze comprehension tests on target readers.

The method of scoring the taped and transcribed paraphrases was similar to the methods used by Charrow (1988), Chovil (1993), and Masson and Waldron (1994). The paraphrase sections were divided up into "Units of Meaning" and scored as "correct," "incorrect," "ambiguous" or "omitted." Participant responses to the open-ended opinion questions were transcribed and analysed using colours and a matrix in a similar way to the method used for the opinion section of the cloze tests.

Paraphrase and Scenario Results

Table 4 describes the five participants' combined total scores for the first paraphrase. Five correct answers were scored out of a possible total of 35. Below is a key to the tables that follow in this article.

Key to Subsequent Tables

✓	=	Correct
X	=	Incorrect
?	=	Ambiguous
-	=	Omitted
Par.	=	Participant

Table 4

Combined Participant Scores for Section 17

Units of Meaning within Section 17	Participant Responses			
	Correct	Incorrect	Ambiguous	Omitted
1. In spite of what it says in section 16				5
2. where the manufacturer (or someone working for or representing the manufacturer)	1	1	1	2
3. makes an additional claim about the goods	1	1	1	2
4. which is not backed up by the description on the packaging or label		1		4
5. and the goods would otherwise have complied with the guarantee of acceptable quality				5
6. then the buyer has no comeback against the supplier	3		1	1
7. if the goods do not comply with the manufacturer's additional claim		1	1	3
Totals	5	4	4	22

All five participants showed they had considerable difficulty understanding this section. Three of the total of five correct answers came from one participant, who took three times as long as any of the other participants to read the passage before paraphrasing it. Table 5 shows the individual participant scores for this paraphrase:

Table 5

Individual Participant Reading Time and Scores for Section 17

Section 17	Par. A	Par. B	Par. C	Par. D	Par. E
Reading Time in Seconds	150	45	50	37	24
Individual Scores					
1. In spite of what it says in section 16	-	-	-	-	-
2. where the manufacturer (or someone working for or representing the manufacturer)	✓	?	x	-	-
3. makes an additional claim about the goods	✓	x	?	-	-
4. which is not backed up by the description on the packaging or label	-	x	-	-	-
5. and the good would otherwise have complied with the guarantee of acceptable quality	-	-	-	-	-
6. then the buyer has no comeback against the supplier	✓	-	✓	✓	?
7. if the goods do not comply with the manufacturer's additional claim	-	x	?	-	-
Total correct	3	0	1	1	0

Participants found section 18(1) easier to paraphrase than section 17. Table 6 and Table 7 show that only one correct point was missed.

Table 6

Combined Participant Scores for Section 18(1)

Units of Meaning within Section 18(1)		Participant Responses			
		Correct	Incorrect	Ambiguous	Omitted
1.	Where goods do not live up to the guarantees	5			
2.	this section covers the buyer's rights	4		1	
Totals		9		1	

Table 7

Individual Participant Reading Time and Scores for Section 18(1)

Section 18(1)	Par. A	Par. B	Par. C	Par. D	Par. E
Reading Time in Seconds	20	40	18	25	25
Participant Scores for Units of Meaning –					
1. Where goods do not live up to the guarantees	✓	✓	✓	✓	✓
2. this section covers the buyer's rights	✓	✓	✓	?	✓
Total Correct	2	2	2	1	2

Table 8 shows a similar pattern for section 18(2), with 27 correct responses out of a possible 30 and Table 9 shows that three participants scored the maximum possible correct answers:

Table 8

Combined Participant Scores for Section 18(2)

Units of Meaning within Section 18(2)		Participant Responses			
		Correct	Incorrect	Ambiguous	Omitted
1.	Where the problem can be fixed	5			
2.	the buyer may ask the supplier to fix the problem within a reasonable time	4	1		
3.	but if the supplier does not do this	4		1	
4.	then the consumer can have the problem fixed somewhere else	5			
5.	and make the supplier pay	5			
6.	or the buyer can refuse to accept the goods	4			1
Totals		27	1	1	1

Table 9

Individual Participant Reading Time and Scores for Section 18(2)

Section 18(2)	Par. A	Par. B	Par. C	Par. D	Par. E
Reading Time in Seconds	26	33	16	34	26
Participant Scores for Units of Meaning –					
1. Where the problem can be fixed	✓	✓	✓	✓	✓
2. the buyer may ask the supplier to fix the problem within a reasonable time	✓	✓	✓	x	✓
3. but if the supplier does not do this	✓	✓	✓	?	✓
4. then the consumer can have the problem fixed somewhere else	✓	✓	✓	✓	✓
5. and make the supplier pay	✓	✓	✓	✓	✓
6. or the buyer can refuse to accept the goods	✓	✓	✓	✓	-
Total Correct	6	6	6	4	5

Section 18(3) was more difficult for participants than sections 18(1) and 18(2), although two of the participants scored full marks. Here the number of correct scores was 18, out of a possible 25, as shown in Table 10 and Table 11.

Table 10

Combined Participant Scores for Section 18(3)

	Units of Meaning within Section 18(3)	Participant Responses			
		Correct	Incorrect	Ambiguous	Omitted
1.	Where the problem cannot be fixed	3			2
2.	or where the problem is a major one	2		1	2
3.	the consumer may reject the goods	5			
4.	or the consumer may get compensation from the seller	5			
5.	to make up for the reduction in the value of the goods	3	1		1
	Totals	18	1	1	5

Table 11

Individual Participant Reading Time and Scores for Section 18(3)

Section 18(3)	Par. A	Par. B	Par. C	Par. D	Par. E
Reading Time in Seconds	40	52	23	34	12
Participant Scores for Units of Meaning —					
1. Where the problem cannot be fixed	✓	-	✓	-	✓
2. or where the problem is a major one	✓	-	✓	-	?
3. the consumer may reject the goods	✓	✓	✓	✓	✓
4. or the consumer may get compensation from the seller	✓	✓	✓	✓	✓
5. to make up for the reduction in the value of the goods	✓	x	✓	-	✓
Total Correct	5	2	5	2	4

The results for section 18(4) were similar over all to those for section 18(3) — a total of 19 correct paraphrases out of a possible 25 (see Table 12).

Table 12

Combined Participant Scores for Section 18(4)

	Unites of Meaning within Section 18(4)	Participant Responses			
		Correct	Incorrect	Ambiguous	Omitted
1.	As well as the remedies described above				5
2.	where the failure of the goods causes damage or loss to the buyer	5			
3.	other than loss or damage caused by the reduction in the value of the goods	4			1
4.	and it would be reasonable to regard the loss or damage as the result of the failure of the goods	5			
5.	then the buyer may claim additional money or compensation from the seller to cover this loss or damage	5			
Totals		19			6

All participants omitted the first unit of meaning for section 18(4). For the remaining units, four participants scored full marks, as indicated in Table 13.

Table 13

Individual Participant Reading Time and Scores for Section 18(4)

Section 18(4)	Par. A	Par. B	Par. C	Par. D	Par. E
Reading Time in Seconds	37	27	39	23	13
Participant Scores for Units of Meaning –					
1. As well as the remedies described above	-	-	-	-	-
2. where the failure of the goods causes damage or loss to the buyer	✓	✓	✓	✓	✓
3. other than loss or damage caused by the reduction in the value of the goods	✓	✓	✓	-	✓
4. and it would be reasonable to regard the loss or damage as the result of the failure of the goods	✓	✓	✓	✓	✓
5. then the buyer may claim additional money from the seller to cover this loss or damage	✓	✓	✓	✓	✓
Total Correct	4	4	4	3	4

Section 19(1) was slightly more difficult for participants than sections 18(3) and 18(4). Participants scored 21 out of a possible 30 (see Table 14).

Table 14

Combined Participant Scores for Section 19(1)

	Units of Meaning within Section 19(1)	Participant Responses			
		Correct	Incorrect	Ambiguous	Omitted
1.	A seller is allowed to correct a failure of goods to live up to a guarantee:	3		1	1
2.	by repairing the faulty goods	5			
3.	by sorting out problems relating to the ownership of the goods	1	2		2
4.	by replacing the goods with identical ones	5			
5.	or, (if it is not reasonable to repair the faulty goods)	3			2
6.	by giving the buyer his or her money back	4			1
	Totals	21	2	1	6

Four participants either missed or misinterpreted the third unit of meaning (see Table 15).

Table 15

Individual Participant Reading Time and Scores for Section 19(1)

Section 19(1)	Par. A	Par. B	Par. C	Par. D	Par. E
Reading Time in Seconds	30	42	37	53	28
Participant Scores for Units of Meaning –					
1. A seller is allowed to correct a failure of goods to live up to a guarantee:	✓	✓	✓	-	?
2. by repairing the faulty goods	✓	✓	✓	✓	✓
3. By sorting out problems relating to The ownership of the goods	✓	x	x	-	-
4. By replacing the goods with identical ones	✓	✓	✓	✓	✓
5. Or, (if it is not reasonable to repair the faulty goods)	✓	✓	✓	-	-
6. By giving the buyer his or her money back	✓	✓	✓	-	✓
Total Correct	6	5	5	2	3

Table 16 shows that for section 19(2), participants gained a total of 10 correct scores out of a possible total of 15. The problem lay in the third unit of meaning, for which only Participant A gained a correct score, as shown in Table 17.

Table 16

Combined Participant Scores for Section 19(2)

	Units of Meaning within Section 19(2)	Participant Responses			
		Correct	Incorrect	Ambiguous	Omitted
1.	If the faulty goods are replaced	5			
2.	then the replacement goods must also meet all the guarantees and requirements laid down in this Act	4			1
3.	and the supplier is liable whether or not he or she supplied the replacement goods	1			4
Totals		10			5

Table 17

Individual Participant Reading Time and Scores for Section 19(2)

Section 19(2)	Par. A	Par. B	Par. C	Par. D	Par. E
Reading Time in Seconds	16	19	12	25	21
Participant Scores for Units of Meaning –					
1. If the faulty goods are replaced	✓	✓	✓	✓	✓
2. then the replacement goods must also meet all the guarantees and requirements laid down in the Act	-	✓	✓	✓	✓
3. and the supplier is liable whether or not he or she supplied the replacement goods	✓	-	-	-	-
Total Correct	2	2	2	2	2

Although the data is incomplete for section 19(3), all but one participant found the section straightforward, as shown in Table 18 and Table 19.

Table 18

Combined Participant Scores for Section 19(3)

Units of Meaning within Section 19(3)	Participant Responses		
	Correct	Incorrect	Omitted
1. A refund includes both cash and anything else	3	1	1
2. which the buyer may have used to buy the goods	3		2
Totals	6	1	3

Table 19

Individual Participant Reading Time and Scores for Section 19(3)

Section 19(3)	Par. A	Par. B	Par. C	Par. D	Par. E
Reading Time in Seconds	8	36	25	20	6
Participant Scores for Units of Meaning –					
1. A refund includes both cash and anything else	Data lost	✓	✓	x	✓
2. which the buyer may have used to buy the goods	Data lost	✓	✓	-	✓
Total Correct	-	2	2	0	2

The purpose of the scenario questions was to find out whether participants could apply the Act appropriately to a real-life situation. Table 20 shows that all but one participant found the relevant authority and answered the first scenario question correctly.

Table 20

Participant Responses to the First Scenario Question

Par.	Summary of Participant Responses	Authority (Section of Act)	Correct?
A	Not recorded (fault in taping)		N.A.
B	Supplier is liable	18(4)	✓
C	Kenny should get compensation for the carpet	18(4)	✓
D	Consumers have rights of readiness against the supplier	16	?
E	Dead plants come under “reasonably foreseeable”; carpet maybe	18(4)	✓

The second scenario question, which was based on section 17, caused participants considerable difficulty, which was not surprising given that this section had drawn the lowest number of correct responses in the previous paraphrase testing. All participants realised that section 17 was relevant but only two appeared to understand the implications fully (see Table 21.)

Table 21

Participant Responses to the Second Scenario Question

Par.	Summary of Participant Responses	Authority (Section of Act)	Correct?
A	not recorded (fault in taping)		N.A.
B	- [confusion in distinguishing between manufacturer’s responsibility and supplier’ responsibility]	17	x
C	Jenny has no claim. Information given is false but no redress for consumer since assurance is verbal	17	x
D	Manufacturer’s responsibility but since they have gone out of business Jenny will have to rely on goodwill of supplier	17	✓
E	Jenny has no claim - manufacturer’s responsibility	17	✓

The questionnaire on familiarity and reading ease, based on the one used by Duckworth (1993), was included in the paraphrase testing to provide for participant opinions of the Act that could be compared with the qualitative data already obtained from the cloze test participants. The results were consistent with the cloze data (see Table 22). Only Participant C was prepared to rate the vocabulary and level of difficulty as “fair” and “average,” although his scores did not indicate he had a superior understanding to the other participants.

Table 22

Participant Opinions on Familiarity and Ease of Reading of the Consumer Guarantees Act

Participant Questions	Par. A	Par. B	Par. C	Par. D	Par. E
1. Have you seen this law before?	Yes	No	No	No	Yes
2. Do you refer to it in the course of your job?	No	No	No	Yes	No
3. Do you have a copy or a guide?	No	No	Yes	Don't know	No
4. How easy or difficult do you find this law to read and understand?	Difficult	Very difficult	Average	Difficult	Very difficult
5. What do you think about the way the act is written and presented?					
a. The vocabulary is:	Fair	Difficult	Fair	Difficult	Difficult
b. The printing and layout make reading the information:	Difficult	Difficult	Easy	Difficult	Difficult
c. The sentences are:	Too long	Too long	Too long	Too long	Too long
d. Finding my way around this law is:	Difficult	Difficult	Easy	Difficult	Difficult
e. You do not need to know anything about the law to understand this information	True	False	False	False	False
f. Do you think this law should be made easier to read and use?	Yes	Yes	Yes	Yes	Yes

Participants were asked to respond to the same open-ended question that concluded the opinions section of the cloze questionnaire: "Please suggest one change that might make this writing easier to read and understand." A summary of responses appears in Table 23. Most responses came under the category of "simplify" or "reorganise."

Table 23

Summary of Participant Responses for Improving Comprehensibility of the Consumer Guarantees Act

Simplify	Reorganise	Define or Explain	Change Layout	Change Content	Problem with Prior Knowledge or Difficult Concepts
B, G2, D, E	B, G2, D2	D2	B, D	B	

Note: Capital letters such as "B" and so on refer to the respective participant (e.g., B= Participant B).

All the participants in the Act interviews were concerned with the difficulty of the language. For example, Participant B notes that "the vocabulary is too difficult ... and ... ah ... for example I had trouble with the word 'representation' and the meaning of the word 'title'..." Participant C explains that "...some of the words I've had a problem with..." Participant E suggests that "The one change would be that it's written in the kind of English that we use every day. Not the kind of English that lawyers use every day. ... It's much easier to read something if it's written as you would say it."⁶

Three participants described the length of sentences as needing revision:

“...the sentences are far too long ... for example section 17 is all one sentence and it’s about three paragraphs which is ridiculous ...” (Participant B)

“...some of the sentences could be reduced in size. I have found that with some of the sentences that although the wording may not be that difficult to understand by the time you get to the end of some of the sentences you are I found myself ...” (Participant C)

“...they need to make sure that the shorter sentences so that ... um ... anyone can undersand...” (Participant D)

Paraphrase and Scenario Discussion

Section 17 caused the greatest difficulties for participants, both with regard to comprehension (as shown in the 14 percent overall correct responses in the paraphrasing test) and to application (as shown in the responses to the second scenario question which was based on section 17). In the paraphrasing exercises based on section 18, participants scored a total of 90 percent correct answers for both sub-sections 18(1) and 18(2), but their combined score total dropped to 72 percent for sub-section 18(3) and 76 percent for sub-section 18(4).

An understanding of the commercial distinction between a manufacturer and the supplier was essential to the correct interpretation of Section 17. One participant noted this point and suggested that the layout of the section did not assist comprehension: “...just the differentiation between manufacturers and suppliers which ... it’s fairly obvious but ... has n... the way it’s been laid out doesn’t make it that obvious...” (Participant B).

Participants found the Act difficult to comprehend, with section 17 virtually impossible to access. All complained of the length of sentences and the difficulty of finding their way around the law. Most suggested the need for some legal knowledge to understand the information. All believed that the law should be made easier to read and use.

Comparing Text-Based and Reader-Based Approaches to Testing

As we have already noted, the three readability software programs often produced varying and confusing statistics. Several possible explanations exist for the discrepancies noted in the current study. For instance, a sentence counter which depends solely on full stops or question marks to determine the number of sentences may be confused by text which is constructed in other ways. Extracts with bulleted list items or numbered sub-clauses seemed to produce some of the widest variations in scores. The most consistent results across the three formulas were obtained from texts with maximum lengths of continuous prose.

To determine all the reasons for the score discrepancies would require detailed analysis of the application of the individual formulas to determine all the reasons for the score discrepancies. Although such analysis might be revealing for its own sake, it would be unlikely to add much to the understanding of why adult readers find certain government documents more difficult to comprehend than others, so we did not pursue this analysis. What is obvious, however, is that the results of the computer-generated readability analyses are inconsistent, and this inconsistency supports Charrow's (1988) recommendation that readability formulas should be applied with caution.

Readability software is increasingly available and is very easy to use. Redish (in Felker, 1980 p.69) noted that the ease of use of a formula was as important to writers as its predictive value, although she was considering manual rather than computer-generated formulas. Ease of use makes a computer formula the likely first choice for writers wanting to measure readability.

The trend noted by Davison (1986) for writers to simplify government regulations and forms by using readability formulas rather than by using information from target readers directly was not an issue during the drafting of the legislation, since testing for readability was not a consideration. However, if the trend does become apparent in New Zealand, then it may hinder increasing accessibility. Because of their ease of use and their apparently desirable objectivity, computer-generated readability measures tend to give writers a false sense of security. In fact, these programs turn writers away from what should be the real focus of their writing: the target reader. Readability programs may be useful as a rough guide for predicting comprehension difficulty for a first draft but should never be used as a means of rewriting. They cannot take into account a specific target audience.

The quantitative and qualitative tests on target readers carried out during this study showed that the Act, Part II was not readily comprehensible to consumers. Retail workers and managers were more able to cope, but this may have been because the particular type of retail firms in the sample chosen for the study were characterised by relatively well-educated and informed workers. The Act would likely be much less comprehensible to workers in firms where product knowledge is less important. The reader-based comprehension studies provided a richer source of qualitative information, despite the limitations in applicability of the results from such a small sample. As shown in the previous chapter, the sample for the cloze study cannot be regarded as representative of either the Northland or the New Zealand populations as a whole, being skewed in favour of female and Maori participants. Thus, the sample results are at best an indicator to be explored further rather than an irrefutable truth for the population. The cloze comprehension testing showed that the Act was not readily accessible to adult readers. The mean level of comprehension was close to Gilmore and Wagner's (1985) frustrational level of 0 to 34%, and below Bormuth's (1968) instructional range, where tutorial assistance would do little to improve comprehension. The paraphrasing and scenario questions provided the best opportunity for identifying complex subject matter and of gaining insights into participant reactions to it.

The most difficult concept for participants was section 17, which was concerned with the distinction between the manufacturer's and the supplier's liability in a particular situation. The limitation of the cloze procedure is that it can only identify which readers have difficulties and where those difficulties are in the text: it cannot explain why they occur. The paraphrase and scenario testing provided further possible explanations, but perhaps the real answer lies in a reader-based comprehension study comparing the original versions with plain language versions.

Gilmore and Wagner (1985) tested the reading comprehension of New Zealand apprentices using the cloze procedure, and their lower threshold for the instructional range was 35 percent. Because the Gilmore and Wagner study allowed a greater number of words between blanks in the cloze extracts than this study did, the application of their interpretation chart to these results is likely to understate the level of comprehension difficulty actually experienced by participants in this study. Despite the lack of direct transferability of interpretation guidelines from previous studies, the results obtained by the cloze procedure to evaluate reading comprehension in this study do seem to indicate that section 18 was only marginally accessible to participants.

In their study of 'professional accountants' understanding of U.S. tax laws, Martindale, Koch and Karlinsky (1992) suggest that readability formulas would not accurately predict reader comprehensibility when the subject matter was complex. There were a number of sections within Part II of the Act in which the concepts could be considered complex or at least technical: For example, the distinction between "supplier" and "manufacturer" in section 17, which confused most of the paraphrase participants, and the terms "title", "redress" and "representations," which drew comments from several of the cloze test participants.

The cloze results showed that the participants with most problems in comprehending the extracts from the Act were in the youngest age group, from 18-34 years. The mean comprehension score for this group was less than 27 percent, firmly inside the "frustrational" range identified by Gilmore and Wagner (1985). This score was significantly below the means of 45 percent and 50 percent for the older age groups, and suggests that previous exposure to similar documents, and perhaps life experience, play an important part in determining the comprehensibility of legal terms and documents.

Participants in the paraphrase testing of the Act all complained about the length of sentences and the difficulty they had in finding their way around the law. Most suggested the need for some legal knowledge to understand the information. All believed the law should be made easier to read and use.

Section 17 of the Act was used to generate opinions from the cloze participants and also as a paraphrase extract (see Appendix C) and scenario question for the second stage individual reading comprehension testing. It proved to be the least well understood of all eight paraphrase extracts, with most participants becoming very confused.

The scenario question based on section 17 (see Appendix D, Question 2) caused similar problems. The distinction between a supplier and a manufacturer was a difficult concept, even for a group of people with relatively high levels of education. Those participants who answered correctly may well have based their answers on their existing knowledge of the law rather than on section 17.

We checked the frequency of nouns within the blanks in each cloze version to see if there was any correlation between the difficulty of a particular version and its noun frequency count. Despite one of the cloze versions having twice as many nouns as blanks as its alternative version, there was no apparent effect on average scores, which were only one percentage point apart for these two versions.

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Section 17 includes a multitude of legal terms: “notwithstanding”, “representation”, “right of redress”, and a syntactic structure where there are several complex conditions before the main clause. The reader must interpret three separate, complex pieces of information and keep all three simultaneously in mind before dealing with the substance of the piece in the last two lines. Section 17 supports Bhatia’s (1983) observation of the strain on the reader’s short-term memory imposed by lengthy preparatory qualifications. The comment from the parliamentary counsel responsible for drafting the Act that section 17 might have been easier for consumers than for garden centre workers seems far removed from any understanding of the reality of the difficulties inherent in the section.

An overwhelming majority of the qualitative opinion responses from participants in the cloze exercise suggested that simpler terms were required to make the Act more accessible. Highly critical of the legal terminology in particular, participants would likely agree with reflections by previous writers and researchers (Mellinkoff 1982, Bhatia 1983, Asprey 1991) that statutes tend to be written for a very narrow target readership of lawyers and judges rather than written for a wider readership including ordinary citizens.

Interview with the Legislative Drafter

Shortly after we had completed the cloze testing, we contacted the Parliamentary Counsel Office to find out more about the drafting process. We gained permission to interview the legislative drafter (parliamentary counsel) who had drafted the Act⁷. The interview was revealing. The drafter described the process: the New Zealand Ministry of Justice provided the instructions and initial draft for the Act to the Parliamentary Counsel Office. The drafter then re-worked the draft and circulated it for feedback to interested parties, including the New Zealand Ministries of Consumer Affairs, Commerce, and Women’s Affairs.

Asked if she had consulted other colleagues within the PCO, the drafter indicated that the writing process was a very individual task, and that she would hesitate to interrupt a busy colleague for advice unless there was a major issue. However, she had worked on the amendments to the Bill with a second legislative drafter. The amendments were recommended by the Parliamentary Select Committee who considered the draft Act.

She considered that the audience for the Act was wider than lawyers, and that she did have consumers in mind when drafting. She had tried to make the Act as readable as she could. The Act did not have any special brief in terms of readability improvement, as was the case with other legislation such as the Income Tax Act, for which the need to improve readability was a significant motivation for the rewrite.

As with other recent New Zealand legislation, there had been no testing of the Act for readability by any of its potential audiences. The consultation with various government bodies during the drafting stage is the nearest statutes come to formal testing. No consumers were included in the consultative process. This practice appeared to be current Parliamentary Counsel Office policy. The Bill was, however, the subject of many submissions at the Select Committee stage.

Asked about section 17, where the terminology (e.g. “notwithstanding”) caused many cloze test participants to express a negative opinion, and participants in the paraphrase exercises had almost all missed the distinction between a manufacturer and supplier, the drafter suggested that the section might have been easier for consumers than for garden centre workers, who could be expected to regard manufacturers as suppliers. The drafter commented on the difficulty of writing umbrella legislation that had to cover so many different types of firm and commercial activities. “At the end of the day,” she said, “I would love to re-do many Acts, with a fresh pair of eyes.” After so many drafts and amendments, many Acts would benefit by being re-organised. The difficulties with many Acts in their final form result, in large part, from the continually evolving nature of the document, the limited time available to complete the task, and the incorporation of so many amendments from the feedback process.

Conclusions

Part II of the Act is not readily comprehensible to consumers. The study showed that retail workers and managers were more able to cope, but this may be because the retail firms chosen for the sample are characterised by relatively well-educated and informed workers. It is likely to be much less comprehensible to workers in firms where product knowledge is less important. The consumers tested did not have high expectations of comprehending legal statutes or other government writing. Their expectation of predicted difficulty correlated to their motivation, and certainly the results of this study bore out this expectation.

Although the study was limited in scope, there was some consistency in the results from the three different parts of the study, and it seems reasonable to predict that these results might be confirmed in a larger study of New Zealand consumers. More research is needed to test the comprehensibility of official documents governing the lives of ordinary New Zealanders. Perhaps this study will help to encourage research in this area. Consumer legislation should be accessible for all consumers, not just those with higher education or legal training.

The results of this study have confirmed for the authors the need for those responsible for major government documents—especially documents which affect the everyday lives of ordinary citizens—to test their draft documents on target readers at an early stage of the writing process, rather than waiting until a document is completed and difficult to change. The text readability measures available with many software packages should be used with caution. Testing real readers using a range of reader-focused methods can provide extremely useful data for those designers of public documents. The tests themselves can be selected according to the purpose and anticipated uses of the document to provide rich data for writers and drafters needing to ensure that documents are accessible to their target audiences.

New Zealand lacks policy or precedent for ensuring that public documents are designed for public audiences. In the case of the Act, feedback regarding the accessibility of the Act for ordinary citizens whose lives were to be governed by it did not feature at all in the drafting process, which only included consultation with interested parties from a relatively high level of government organisations. Government writing in New Zealand appears to be driven more by policy than transparency or accessibility.

Although this study has yielded some interesting insights into the accessibility of one significant public documents for a particular sample of target citizens, it also shows some of the gaps in our knowledge about public documents in New Zealand. For instance, there could be a problem with writers of public documents in determining the scope and nature of their target audiences and the comprehension needs of those audiences. Another observation and hence suggestion for further study is that public documents are not subjected to appropriate reader-based testing methods before release. It would be worthwhile researching the testing practices across a range of government organisations. Finally, more research is needed in measuring the true costs and benefits of plain language documents. The work of Mills and Duckworth (1996) in Australia provides a possible model. If future studies prove the economic worth of plain language projects, then decision makers in both the public sector and the private sector will have reason to embrace and encourage the plain language movement.

Appendix A

Explanation of Cloze Procedure and Sample of Clozed Extract

Explanation of Cloze Procedure

The basic elements of the cloze procedure involve the deletion of every nth (usually fifth) word from samples of the writing to be tested. Readers are asked to provide the missing word to fit in each blank space. The greater the interval between deletions, the easier the test becomes. Cloze procedure offers a convenient and administratively straightforward means of measuring comprehension difficulty of a particular text. To increase the reliability and validity of the cloze procedure, researchers may choose to prepare multiple versions of the sample text with the blanks starting at a different first word in each version. An alternative method which does not require multiple versions involves preparing a single cloze passage from each original with the proportion of deleted nouns to the total blanks the same as the proportion of nouns within the whole original text. The tests in this study included two cloze versions for each section of text, with the first blank starting at a different place in each version.

Part of Extract from Version 1 of Sections 18(3) and 18(4)

18(4) [Additional remedy] In _____ to the remedies set _____ in subsection (2) and _____ (3) of this section, _____ consumer may obtain from _____ supplier damages for any _____ or damage to the _____ resulting from the failure (_____ than loss or damage _____ reduction in value of _____ goods) which was reasonably _____ as liable to result _____ the failure.
--

Appendix B

Sample of Noun Frequency Analysis of Extract Used in Cloze Testing

We checked the frequency of nouns within the blanks in each cloze version to see if there was any correlation between the difficulty of a particular version and its noun frequency count. Despite one of the cloze versions having twice as many nouns as blanks as its alternative version, there was no apparent effect on average scores, which were only one percentage point apart for these two versions (see Table 24).

Table 24

Comparison of Nouns Relative to Other Substantive and Structural Words in the First Cloze Version of the Sub-section 18(1) and 18(2) Extract from the Consumer Guarantees Act

18(1) & 18(2) Extract, Version 1: Blanks	Head Noun	Other Substantive	Structural
a			✓
of			✓
in			✓
of			✓
of			✓
goods	✓		
guarantee	✓		
the			✓
failure	✓		
the			✓
the			✓
the			✓
failure	✓		
in			✓
of			✓
a			✓
required		✓	
refuses		✓	
so			✓
in			✓
reasonable		✓	
failure	✓		
from			✓
costs	✓		
failure	✓		
To			✓
Act	✓		
accordance		✓	
This			✓
29	8	4	17

Appendix C

Sample of Text Used in Paraphrase

Testing: Section 17, Paraphrase 1

SECTION 17 EXCEPTION IN RESPECT OF GUARANTEE AS TO ACCEPTABLE QUALITY

17 Notwithstanding section 16 of this Act, where—

(a) The manufacturer, or a servant or agent of the manufacturer, makes a representation in respect of goods (otherwise than a statement of any packaging or label); and

(b) The goods would have complied with the guarantee of acceptable quality if that representation had not been made,—

there shall be no right of redress against the supplier under this Act in respect of the failure of the goods to comply with the guarantee of acceptable quality.

Appendix D

Scenario Questions

Question 1

Kenny buys a computerised irrigation system from Gorgeous Gardens Ltd. And, carefully following the instructions, installs it in his garden. He then goes on holiday, secure in the knowledge that his garden will be watered regularly.

However, on his return from Fiji some four weeks later, Kenny discovers his garden has been over-watered and many of his plants have rotted. Worse still, the water has found its way into the basement of Kenny's house and the carpet is ruined.

It seems that the new irrigation system has a fault in that it fails to switch off properly. Kenny complains to Gorgeous Gardens, and they promptly agree to remedy the fault in the system. However, the firm refuses to compensate Kenny for the dead plants or the damaged carpet.

How would you advise Kenny, based on your understanding of section 18 of the Consumer Guarantees Act?

Question 2

Browsing in Gorgeous Gardens Ltd store on Saturday morning, Jenny is impressed by an in-store demonstration of a water pump by an agent for the manufacturers of WonderWater garden accessories. The WonderWater agent assures Jenny that the pump will automatically cut off if the stream which Jenny intends as the source of her water runs low, despite the fact that neither the description on the packaging nor the instructions with the pump unit mention any automatic cut-off facility.

Jenny buys the pump from Gorgeous Gardens Ltd and installs it. Six months later, the stream runs lower than normal as the result of a dry summer and the pump burns out. It turns out that there is no automatic cut-off. Unfortunately the manufacturers of WonderWater have gone out of business.

Has Jenny any claim against Gorgeous Gardens Ltd under sections 16-18 of the Consumer Guarantees Act?

Notes

¹ Throughout the remainder of the article, the *Legislation Manual: Structure and Style* is referred to as the *Manual*.

² Hereafter, the Consumer Guarantees Act 1933 is referred to as the Act.

³ Maori is both the name and the language of the indigenous people of New Zealand

⁴ Participants' typographical, spelling and punctuation errors have been retained in the quotations given throughout this paper.

⁵ Most fifteen to sixteen year old students in New Zealand sit a series of national examinations known collectively as "School Certificate" towards the end of their third year at secondary school. When jobs were more plentiful, many students left the education system at this point. Increasingly, however, students are staying on at school for up to two further years to gain higher qualifications.

⁶ Participant A's responses to this question were not recorded because of an equipment failure, but the field notes made at the time showed his concern with the difficulty of the language.

⁷ Hereafter, the parliamentary counsel responsible for drafting the Act is referred to as the drafter.

References

Asprey, M. (1991). *Plain language for lawyers*. Annandale, New South Wales, Australia: The Federation Press.

Australia. Law Reform Commission of Victoria (1987). *Plain English and the law*. (Report No. 9). Melbourne, Australia: Victorian Government Printer.

Bhatia, V. K. (1983). *An applied discourse analysis of English legislative writing*. Birmingham, England: University of Aston, Language Studies Unit.

Bormuth, J. R. (1966). Readability: A new approach, *Reading Research Quarterly*, 2, 79-132.

Bormuth, J. R. (1967). Comparable cloze and multiple-choice comprehension test scores, *Journal of Reading*, 10, 291-299.

Bormuth, J. R. (1968). Cloze test readability: Criterion reference scores, *Journal of Educational Measurement*, 5(3), 189-196.

Bormuth, J. R. (1975). The cloze procedure: Literacy in the classroom. In W. D. Page (Ed.), *Help for the reading teacher: New directions in research* (pp. 60-90). Urbana, IL: National Conference on Research in English.

Burnett, R. E. (1994). Reviewing the practice of document testing, *The ABCA Bulletin*, 57(4), 47.

Charrow, V. R. (1988). Readability v comprehensibility: A case study in improving a real document. In A. Davison, & G. M. Green (Eds.), *Linguistic complexity and text comprehension: Readability issues reconsidered* (pp. 85-114). Hillsdale, NJ: Erlbaum.

Chovil, N. (1993). *Comprehensibility of documents: An investigation of B.C. readers' understanding of six documents*, The Plain Language Institute, Vancouver, BC, Canada: The Plain Language Institute.

Coleman, E. B. (1971). Developing a technology of written instruction: Some determiners of the complexity of prose. In E. Z. Rothkopf, & P. E. Johnson (Eds.), *Verbal learning research and the technology of written instruction*, (pp. 155-204). New York: Teachers College Press.

Consumers Institute of New Zealand Inc. (1985, January/February). Fight gobbledegook!, *Consumer*, 224, 26-28.

Consumers Institute of New Zealand Inc. (1991). Gobbledegook alive and well, *Consumer*, 294, 3.

Daniel, R. (1994). Reader-based document testing at VA, *The ABCA Bulletin*, 57(4) 54-58.

Davison, A. (1986). *Readability - the situation today*, Reading Education Report No. 70, University of Illinois, Urbana-Champaign.

Davison, A., & Kantor, R. (1982). On the failure of readability formulas to define readable texts, *Reading Research Quarterly*, 17, 187-209.

Douglas, C. (1994). Simple minders, *Prodesign*, 27-29.

Duckworth, M. (1993). *Texts they cannot comprehend - legislation and the workplace*, University of Sydney, Australia, Faculty of Law, Law Foundation Centre for Plain Legal Language.

Eagleson, R. D. (1990). *Writing in plain English*. Canberra, Australian Government Public Service.

Executive Order No. 12044, 43 C.F.R. 12,661 (1978).

Felker, D. B. (Ed.). (1980). *Document design: A review of relevant research* (Report No. AIR-75002-4/80-TR). Washington, DC.: National Institute of Education.

Gilmore, A., & Wagner, G. (1985). *The readability of trades examinations*. Wellington: New Zealand Council for Educational Research.

Kimble, J. (1992). *Plain English: A charter for clear writing*, Thomas M. Cooley Law Review, 9(1).

Kimble, J. (1994-1995). *Answering the Critics of Plain Language*, The Scribes Journal of Legal Writing, 5.

Kimble, J. (1996-1997). *Writing for Dollars, Writing to Please*, The Scribes Journal of Legal Writing, 6.

Klare, G. R. (1984). Readability. In P. D. Pearson (Ed.), *Handbook of reading research* (pp.681-744). New York: Longman.

Klare, G. R. (1988). The formative years. In B. L. Zakaluk, & S. J. Samuels, (Eds.), *Readability: Its past, present and future* (pp. 14-33) Newark, DE: International Reading Association

Klare, G. R., Sinaiko, H. W., & Stolurow, L. M. (1972). The cloze procedure: A convenient readability test for training materials and translations, *International Review of Applied Psychology*, 21, 77-106.

Knight, P. (1996). *Clearly better drafting: A report to Plain English Campaign on testing two versions of the South Africa Human Rights Commission Act, 1995*. Stockport, England: Plain English Campaign.

Martindale, B. C., Koch, B. S., & Karlinsky, S. S. (1992). Tax law complexity: The impact of style, *The Journal of Business Communication*, 29(4), 383-400.

Masson, M. E. J. & Waldron, M. A. (1994). Comprehension of legal contracts by non-experts: Effectiveness of plain language redrafting, *Journal of Applied Cognitive Psychology*, 8, 67-85.

Mellinkoff, D. (1982). *Legal writing : Sense and nonsense*. St Paul MN: West.

Mills, G. & Duckworth, M. (1996). *The gains from clarity*. University of Sydney, Law Foundation Centre for Plain Legal Language & Centre for Microeconomic Policy Analysis.

Moore, L. (1995). Retailers flout consumer law. *The New Zealand Herald*, p.A3.

New Zealand. Department of Statistics (1992). *1991 New Zealand Census of Population and Dwellings: Northland/Auckland Regional Report*. Department of Statistics - Te Tari Tatau, Information Services Branch.

New Zealand. Law Commission (1993). *The Format of Legislation* (Report No. 27). Wellington.

New Zealand. Law Commission (1996). *Legislation Manual: Structure and Style* (Report No 35). Wellington.

New Zealand. Ministry of Consumer Affairs (1988). *Plain English credit contracts*. Wellington: Author.

New Zealand. Ministry of Education (1993). *NZ Government Vital Statistics* [on line].

Phillips, V. (1995). Rights when things go wrong. *The Northern Advocate*, p. 1.

Shaffer, R. J., Stevens, K. T. & Stevens, W. P. (1993). Assessing the readability of government accounting standards: The cloze procedure, *Journal of Technical Writing and Communication*, 23(3), 259-267.

Stevens, K. T., Stevens, K. C., & Stevens, W. P. (1992). Measuring the readability of business writing: The cloze procedure versus readability formulas. *The Journal of Business Communication*, 29(4) 367-382.

Taylor, W. L. (1953). Cloze procedure: A new tool for measuring readability, *Journalism Quarterly*, 30, 415-433.