

Review Paper 11: Assessment Literacy

An Analysis of the Assessment Literacy of the New Zealand Public, and the Sources that Inform that Literacy

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Executive Summary

The issue of the assessment literacy of the New Zealand public is examined through an analysis of survey results as well as the reporting on assessment issues in the popular media. The analysis indicates that generally speaking, the assessment literacy of the public is not particularly high; additionally, it does not appear to be the case that such literacy could be readily acquired from reading about assessment issues and programmes in the popular news media. A comparable analysis of the assessment literacy of the public in the United States suggests that such literacy in the two nations is roughly equivalent.

The conclusion that the assessment literacy of the public is not particularly high is inferred from a set of results from three surveys taken of the public in New Zealand, as well as comparable studies in the United States. When asked about their knowledge of the most prominent assessment programme in New Zealand, NCEA, less than half of a sample of New Zealand parents indicated that they understood the programme. Similar research in the US concerning No Child Left Behind found similar results among parents, and even higher levels of assessment illiteracy among members of the public who did not have children in the public schools.

It is posited that the primary source of information for learning about assessment issues is the popular news media. An analysis of news reporting in the popular media was conducted to see how information is presented to the New Zealand public. Looking at the major national and international assessment programmes in New Zealand, it was found that reporting on NCEA dominates the coverage. A sample of articles in newspapers and magazines was drawn for purposes of an in-depth examination. It was found that most newspaper articles are fairly brief and either focused on reporting annual results or questioning some aspect of the programme. Magazine articles tend to be much longer; they were primarily focused on perceived problems with the NCEA programme. The readability of the articles in both newspapers and magazines was at the upper level of the high school range, similar to articles on different topics within the same publications.

It is argued that it would be desirable for the assessment literacy in New Zealand to be higher than it currently is. Increased levels of literacy would allow for stronger and better-informed public participation in addressing educational and schooling issues. A national communication strategy that would directly communicate more extensively and precisely the nature of the assessment programmes in New Zealand, and the accomplishments of students in those programmes is advocated. Such a strategy could involve offering more detailed presentation of assessment information to the news media along with an effort to communicate more directly to parents and the public.

Introduction

“Pass rates up, but 38pc fail NCEA level one”

is the headline in the Dominion Post (Saturday, 29 March 2008). The subheading reads, “More than a third of year 11 pupils did not pass NCEA level one last year – but the Qualifications Authority is hailing across-the-board improvements in pass rate.” The article that follows the headlines reports the results broadly and casts the article in the framework of various controversies that accompany the NCEA programme. This article is typical of media reports on NCEA. Each year’s reporting also includes the notorious “league tables” of results for each high school, typically presenting the roll, the percentage passing at each of the three levels, and perhaps scholarship information, along with the region and the decile ranking of each school. An example of such a league table is presented in Figure 1 below.

Figure 1
League Table

School and (decile)	Roll	Level 1 %	Level 2 %	Level 3 %	Schol No
NATIONAL					
		62.8	65.8	54.6	
CENTRAL NORTH ISLAND					
Forest View High School (3)	631	50	60.5	34.4	1
Mangakino Area School (1)	42	14.3	40	0	0
Rangitahi College (3)	91	22.7	0	0	0
Reporoa College (6)	281	71	63.2	74.1	2
Ruapehu College (3)	220	40	39.4	14.8	0
Taihape Area School (4)	145	62.9	64.5	44.4	0
Tauhara College (5)	437	72.3	70.8	44.4	3
Taumarunui High School (2)	534	55.7	64.8	27.4	0
Taupo-nui-a-Tia College (7)	919	65.2	68.8	48	3
Tokoroa High School (2)	407	72.6	36.8	34.9	2
Tongariro School (2)	171	71.4	28	40	1
EAST COAST					
Campion College (6)	361	78.9	79.7	74.1	5
Gisborne Boys' High School (3)	730	60.4	55.5	34.5	1
Gisborne Girls' High School (3)	832	63.8	69.4	62.8	2
Lytton High School (2)	804	42.8	47.7	25.4	2
Ngata Memorial College (1)	83	81.5	58.3	0	0
TKKM o Te Waiu o Ngati Porou (1)	74	105.6	80	60	3
Tolaga Bay Area School (2)	119	35.9	57.1	50	0
Waikohu College (1)	68	76.5	66.7	0	0

Source: Dominion Post: http://www.stuff.co.nz/asset/NCEA_TABLE_2008.pdf

With the annual presentation of NCEA results, there are accompanying pieces in various publications arguing for or against NCEA as being good or bad, and comparing the various perceived benefits or harms of NCEA to the International

Baccalaureate, or the Cambridge programme, etc. The issue of NCEA rises up and then subsides on pretty much an annual basis. But it is not without consequence. Policy needs to be set, considered and reconsidered, executed, and evaluated. Part and parcel of such processes are the opinions of the public, expressed in a myriad of ways to the Members of Parliament, the media, and educators.

But what does the public actually understand of all this? How much does the public know about assessment and how does it process the information that is presented by the popular media sources? Does it wade through the chaff to find the wheat, or does it listen to the most persuasive, or even the loudest, voices? The underlying question that might be posed here is: “What is the assessment literacy of the New Zealand public, and how does that literacy, or lack of same, play into public policy debates and decisions?” There are a number of related questions that might be posed concerning the knowledge of the public with regard to assessment. For example, how does the assessment literacy compare to that of other comparable countries? What does the public think about assessment and assessment issues? Are they for more assessment in the schools or less? What kinds of assessment do they prefer, or do they even have an opinion, much less an informed one?

It will come as little or no surprise that there are no direct answers to the basic question of the assessment literacy of New Zealanders. There *is* information that reflects on parents’ self-perceptions of knowledge of NCEA, as well as the degree to which principals and teachers agree with these perceptions (Hipkins, 2007; Hipkins & Hodgen, 2004). There is also comparable information about public knowledge of No Child Left Behind and the testing that accompanies that legislation in the United States. There is also information that looks at public opinions with regard to assessment information, as well as the growth of national assessment in a variety of other countries. This information is examined later in this paper.

Given the paucity of direct information on the question, how can these issues best be approached? To begin, the answerable questions need to be sorted from the unanswerable ones. And for those questions for which there are no direct answers, the issue becomes: are there indirect approaches that might reflect on the question? The purpose of this paper is to see what is known, what might reasonably be inferred, what is not known, but might be known, and how to go about getting that information. Addressing a fundamental question for might be best for purposes of proceeding:

What Is Assessment Literacy?

Assessment literacy might reasonably be defined as the knowledge of the approaches, processes, and outcomes of assessment. From a practical perspective, this basically translates to issues of whether the public understands the nature of the assessments used, the context of the assessments as they are administered in schools, and what the results mean at a variety of levels (personal, school, or national).

Sorting Out the Answerable from the Unanswerable, and Points In-Between

Since it is not possible to simply gather up and sift through a rich research base concerning the assessment literacy of New Zealanders, some alternatives need to

be explored. There are several possible approaches to the question. To begin, the assessment literacy of the public can reasonably be inferred to be strongly influenced by the information about assessment that the public receives. This would provide a fairly close tie to being able to look at assessment literacy in a direct fashion. The average member of the public would probably get the preponderance, if not all, of their information about assessment from news media reporting. Of course, individuals could also seek out information from sources such as websites provided by organizations such as NZQA or NZCER, or others, but it is probably safe to conclude that news reports would be the main source of information.

Second, there is some information, both in New Zealand and in the United States, that looks at how well informed parents *think* they are with regard to particular programmes and legislation (NCEA in New Zealand, and NCLB in the US). The US data also includes estimates for the general public. Additionally, there is research looking at public attitudes toward assessment and assessment policy. This is the closest we come to direct information on the assessment literacy of the public.

Third, assessment literacy might be viewed as a subset of data literacy or scientific literacy. Comprehending assessment results requires a certain level of quantitative sophistication, as well as the ability to understand assessment and schooling issues. An analysis of research on scientific, quantitative, or data literacy reveals that such studies are rather generic in nature, or consist of exhortations that the public should be more literate. There was little in this literature that seemed to be directly pertinent to the underlying issues under discussion in this paper, and so it isn't discussed beyond these comments.

And fourth, it is possible to speculate on the nature and degree of public assessment literacy necessary to inform the national debate on the topic. In order for the public to intelligently participate in national consideration of educational policies and practices, what *should* the public know about how are children are doing, both locally, and in comparison to other countries? What should the responsibility be of an assessment strategy in terms of effective communication to the public? And how should that communication be realized.

These four areas, then, form the basis of this paper. We begin with the nature of the communication of assessment results to the public via the news media.

Public Receipt of Assessment Information Via the News Media

As is the case in most countries, the public of New Zealand receives information about assessment through news media outlets. This would include newspapers and magazines, radio, and television. For purposes of this paper, a series of searches of news outlet databases was conducted to look for reports on assessment issues in both local and national news outlets. Searches were conducted for both national (NCEA, NEMP, asTTle) programmes of assessment as well as international ones (PIRLS, TIMMS). Although there are a host of ways these searches might be conducted, for this paper the searches are limited to fairly recent time periods, and to selectively engage in in-depth analysis in order to present a picture of the coverage that would best reflect upon the underlying question of what is the assessment literacy

of the New Zealand public. The rationale for this approach was developed after looking at a number of articles and realizing that there were a limited set of themes in the reports, and similarities in terms of length and sophistication.

What kinds of news coverage exist?

To begin, let's consider the frequency with which information about assessment comes up in the news media. Searching on NCEA, NEMP asTTle, PIRLS, TIMMS, and PAT for the time period 1 January 2005 to 31 July 2008 (two and a half year time period) in the Newztext website, including the STOP-PRESS, STUFF, NZ Herald, RadioNZ, and Scoop news services yields the following number of "hits".

- NCEA: 2412
- asTTle: 41
- NEMP: 25
- PIRLS: 12
- TIMMS: 6
- PAT: 4

Note that while this search covered most of the major newspapers in New Zealand, it did not cover all of them. This search includes all content that carried the assessment programme in the title or in the text of the report. This also includes editorials, letters to the editor, etc. In reviewing a number of these hits, it is clear that NCEA occasionally comes up as an aside often within a piece (e.g., "...who is studying for NCEA this year..."). This appeared to occur in about 10% of the articles. That being said, it is equally clear that NCEA dominates the press coverage that exists on assessment issues. This is to be expected as it influences many New Zealand families and has experienced a fair amount of controversy and discussion since its inception. Because this is the case, it would be useful to examine the news coverage of NCEA more closely.

Given the two and a half year time frame of the search, it appears that, in the publications included, NCEA comes up about on the news outlets covered by these services 2-3 times per day on average. Naturally, the time near the release of results sees a burst of stories about the programme, but there is also a fairly steady mention of NCEA throughout the year. But what is included in these articles, and what levels of sophistication and knowledge about NCEA do they assume? To look at this question, twenty newspaper articles and editorials were selected from the last two years from a variety of New Zealand newspapers, along with five magazine articles. Each article was read for content and for the amount of knowledge the article assumed the reader had about NCEA. The latter determination is based on judgement (of the author) using the following rubric:

- Reader knows very little or nothing about NCEA. In these articles, NCEA is described in some level of detail.
- Reader has basic understanding of what NCEA is about. In these articles, it is assumed that the reader knows that NCEA is the basic system through which

students earn qualifications for entrance into university, apprentice programmes, etc.

- Reader has relatively sophisticated understanding of NCEA. In these articles, it is assumed that the reader has an idea of NCEA, what preceded it, what is in competition with it, and what the fundamental issues of concern are.

In addition to this qualitative assessment of the level of knowledge of NCEA, each article was assessed for its length in words, sentences, and its level of readability as assessed by the Flesch Reading Ease and the Flesch-Kincaid Grade Level indicators (Kincaid, Aagard, O'Hare & Cottrell, 1981; McCallum & Peterson, 1982). These are two commonly used indicators of how difficult a passage is to read, and give an idea of the level of sophistication at which the article was written.

What levels of public knowledge and interest are assumed in news coverage?

Starting with the twenty newspaper articles, it is clear that most newspaper writers and/or editorial staffs assume at least a moderate level of knowledge in their readers with regard to NCEA. Of the twenty articles examined, the following distribution of levels of sophistication were observed:

Basic level (little knowledge of NCEA assumed): 2 articles
 Intermediate level (moderate knowledge of NCEA assumed): 11 articles
 High level (strong knowledge of NCEA assumed): 7 articles

Many of the articles discussed what might be considered to be regular NCEA news:

- current sets of results at the school, local, and national levels
- gender differences in performance
- issues of cheating
- the number of times students would be allowed to re-sit an examination

Other articles addressed issues of the NCEA assessment itself:

- a description of what NCEA is and how it works
- the review of standards currently underway
- a critique of NCEA by local principals
- changes proposed for NCEA
- how NCEA affects students and impacts on New Zealand as a whole

Of the twenty articles reviewed, eleven presented some level of critique of NCEA or discussed a perceived problem of the programme. It was clear from reading the articles that the newspapers overall assumed a fundamental level of knowledge about and interest in NCEA. About a third assumed that the reader's knowledge and interest levels were substantial; the rest only assumed more modest levels. Here are examples of the kinds of passages used to draw conclusions about the levels of knowledge and interest:

Basic level:

The National Certificate of Educational Achievement level 1 replaced School Certificate in 2002. The following year NCEA level 2 was introduced. NCEA level 3 replaced University Bursaries in 2004. Scholarships (not using achievement or unit standards) are available to outstanding students. (The Timaru Herald, 2 December, 2006, Edition 2, Page 5).

Under NCEA, subject areas are divided into standards that describe specific tasks or skills – 329 externally assessed achievement standards can be studied. A similar number of achievement standards can be studied as internally assessed standards. (Sunday Star Times, 25 March, 2007, Edition a, Page 3).

Intermediate level:

Mr Maharey says “excellence” and “merit” will be available to NCEA certificates from this year and at subject level from 2008. Several Taranaki schools have come up with their own programmes to motivate students in the existing NCEA. (Taranaki Daily News, 30 May, 2007, Edition 1 Page 3).

There was concern that assessment was “driving the curriculum” even in Years 9 and 10 before students start NCEA assessments, with some principals and teachers saying the number of assessments should be limited. (The Press – News 17 October, 2007).

High level:

The study, commissioned by the Ministry of Education and released yesterday, revealed that two-thirds of students’ feedback criticised the National Certificate of Educational Achievement as having a negative influence on the motivation to learn. It said design flaws were a disincentive for “high achievers and all students” to want to achieve; students could avoid subjects seen as too hard, ignore parts of a course they didn’t like, or not sit exams once minimum credits were achieved. (The New Zealand Herald, 5 July, 2006).

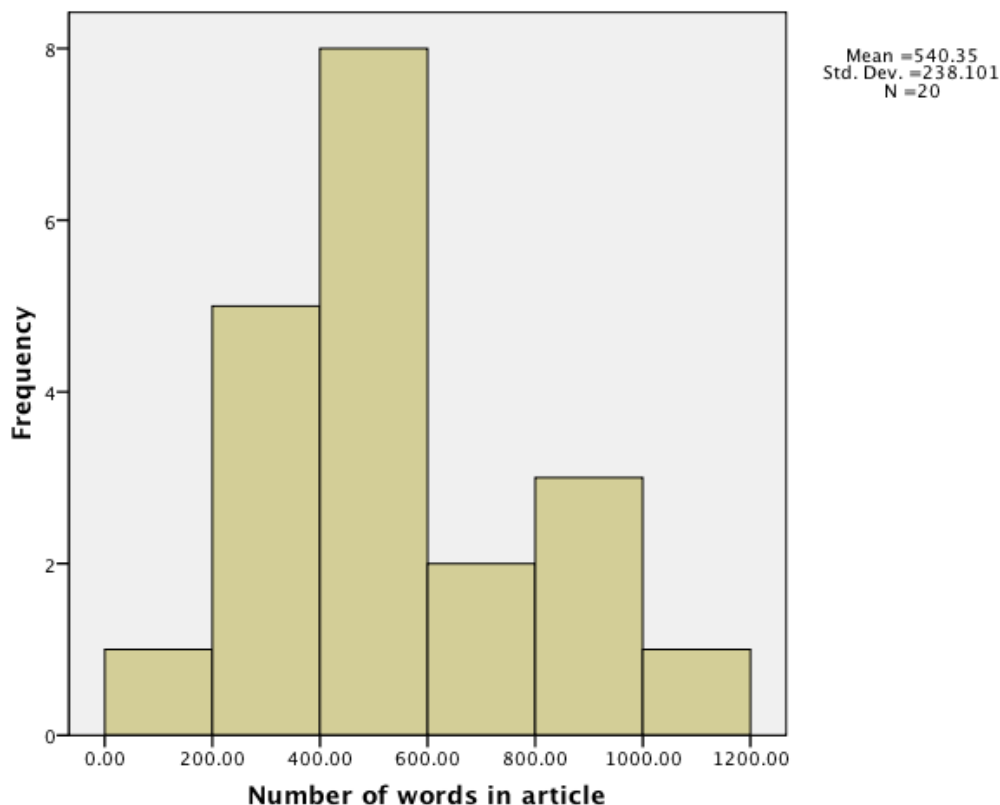
Deputy chief executive of qualifications Bali Haque warned about comparing schools. “Factors such as decile, roll numbers and make-up, courses offered, and course design are specific to each school and these influence a school’s statistics. To qualify for an endorsement with Excellence, students require 50 credits at Excellence. (North Shore Times, 8 April, 2008).

It can be seen here that the articles range from a rudimentary explanation of how NCEA works to fairly sophisticated analyses of issues concerning how the programme works and how it influences student behaviour. Interestingly, none of the articles reviewed seriously attempted to address the issue of what NCEA measures, or what children who do well on NCEA can do or cannot do. Although the author has seen at least one article in the past three years that attempted such an analysis, a member of the public, having read all twenty articles reviewed here, still would have no fundamental idea of the academic abilities of students receiving various marks, nor any real idea of what was on the assessments that the children took, although this information is available to the media. To that extent, it might be argued that the media coverage of NCEA concerns issues that are of interest to the public, and frequently emotive in nature, but that the public could not come away with a good idea of what the programme measured or how well students were doing in any meaningful fashion from reading the articles.

How long are the articles in newspapers?

Most of the articles were fairly short, although length of article varied a great deal. Figure 2 presents a histogram of the lengths in words of the twenty articles reviewed.

Figure 2.
Histogram of the lengths of articles reviewed

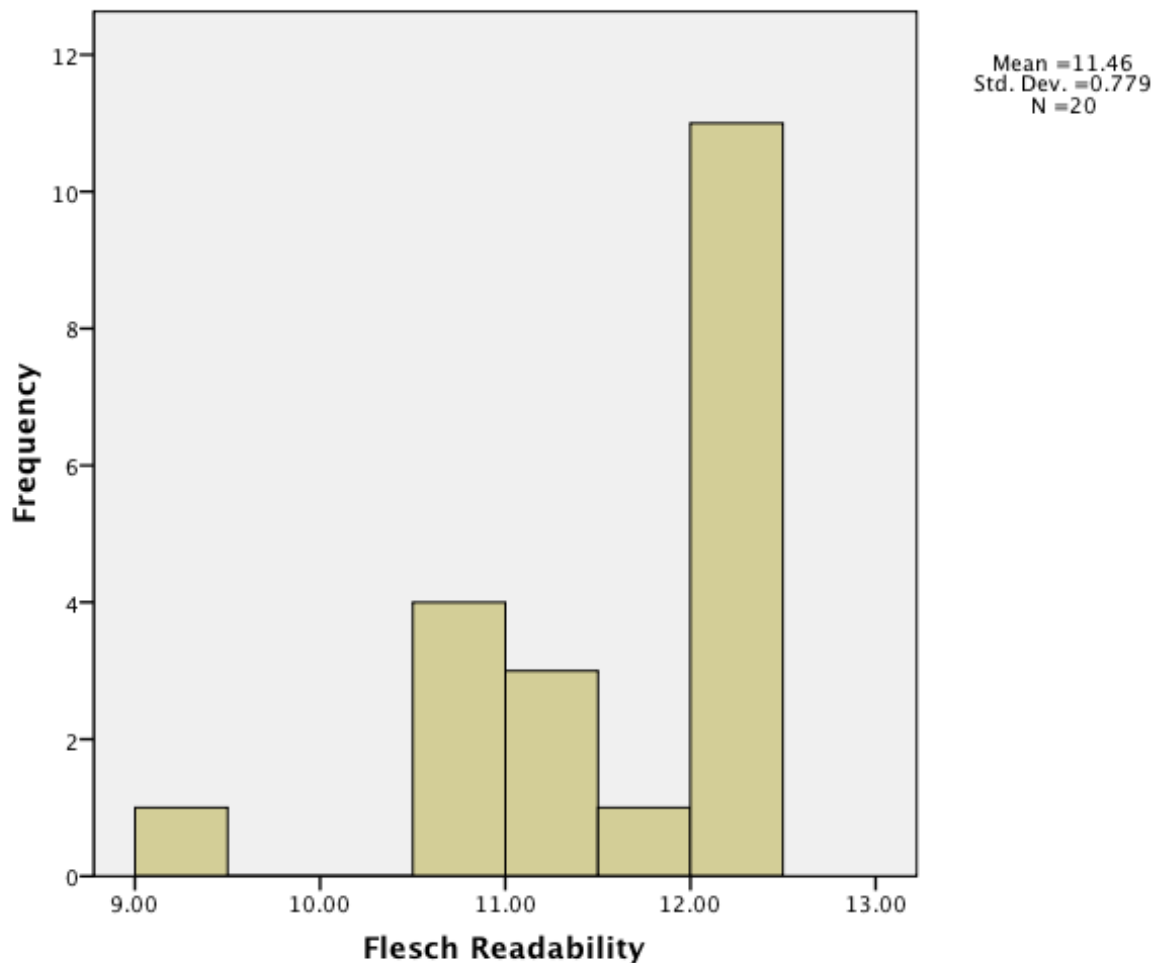


The mean number of words was 540 with a standard deviation of 238. The longest article reviewed was 1195 words and the shortest article was 195 words. Most of the articles were between 300 and 700 words in length. This is long enough to present basic information, but not much in the way of real depth about the subject. Thus, there is a degree of superficiality in most of the articles.

What is the readability in the newspaper articles?

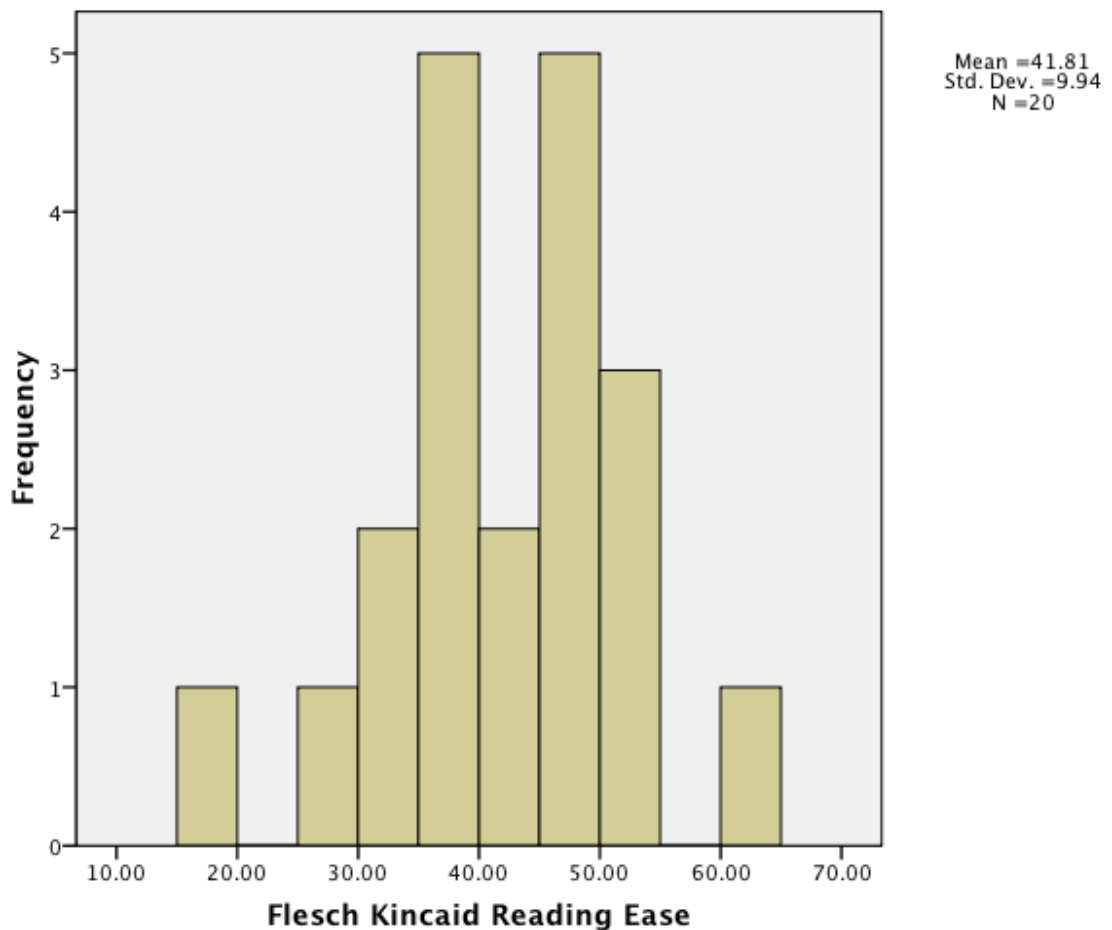
The articles were assessed for the difficulty of reading level using two related formulæ, the Flesch Readability Level and the Flesch-Kincaid Reading Ease Indicator. These were employed to get an idea of the level of communication concerning assessment issues found in the articles. Figure 3 presents the Flesch Readability Index.

Figure 3
Flesch Readability Levels



The mean reading level is 11.46, with a standard deviation of 0.779. The 11.46 is a US grade level indicator, which would be roughly equivalent to being at the Year 13 reading level in New Zealand. A problem with the Flesch index is that it “tops out” at 12.0, and as can be seen, many of the articles had readability levels of at least 12.0. The ceiling effect of the Flesch Readability scale makes it difficult to see the variability in the reading levels of the articles. An alternative is the Flesch-Kincaid Reading Ease Index, that operates on a 100-point scale and does not have the ceiling effect problem seen with the grade level measure. The Flesch-Kincaid Reading Ease Index results are presenting in Figure 4 below. For this index, a higher score indicates an easier reading level.

Figure 4
Flesch-Kincaid Reading Ease Index



The mean Flesch-Kincaid score is 41.81 with a standard deviation of 9.94. As can be seen from the graph, the bulk of the scores are between 25 and 55. Scores from 30-50 are described in the literature on the index as being a “difficult” reading

level, with comprehension levels at “high school or some college.” Scores below 30 are considered “very difficult” and suggest a college level of education necessary for reading.

Thus, and generally in keeping with the truncated Flesch score graph in Figure 3, it can be seen that these articles are generally written at the high school level. The question arises as to whether newspapers assume a higher level of reading ability for reading material about assessment, or whether such articles require a somewhat more sophisticated vocabulary and sentence length to clearly communicate their content. To answer that question, a sample of general articles using four search terms (education, parliament, lifestyle, and rugby) were drawn from the same search service and analysed in the same fashion. With the exception of the “rugby” articles having a slightly easier readability, there were no differences in the readability levels overall using the other terms.

How do magazine articles compare to newspaper articles?

As might be expected, the magazine articles were longer and more in depth than the newspaper articles. Three of the articles came from the *Listener*, and two came from *North & South*. These pieces comprise both in-depth analyses and editorials, taking a critical look at the issues revolving around NCEA. In doing so, they assume a moderate to high level of knowledge and interest in NCEA, but they laid out issues as well. Two of the *Listener* articles were of similar length to the longer newspaper articles (around 700 words); one was much longer (2875 words). The two pieces in *North & South* were quite long in comparison (each over 6500 words). The readability levels were comparable to the newspaper articles (Flesch-Kincaid scores in the 40s).

The magazine articles all were what might be called “issue” pieces; they were not so much informational pieces presented about NCEA or results from NCEA as they were extended critiques of aspects of NCEA, or the programme as a whole. Given the rather difficult nature of the start-up of the NCEA programme, this is, perhaps, not surprising. It might be noted that a number of the issues and claims contained in both magazine and newspaper articles are contestable with regard to the facts of NCEA, and thus the public might well be misinformed about certain aspects of NCEA as a result of reading the pieces. One common error in the reporting was to extrapolate an analysis on internally marked exams to examine what would happen if they had been a random sample of the internal exams rather than a highly selective sample of what markers thought were the most difficult cases.

As is the case for the newspaper articles, the magazine articles do not directly address the issue of what is actually being measured in NCEA; the reader does not have any sense of what a person getting an “achieve” in a given area knows or could do. Nor is there any notion of the difference between an “achieve” and a “merit”. Basically, what one learns from the articles is a fundamental understanding of the nature of programme in terms of what areas are assessed or how credits work within subject areas. Thus, it appears that NCEA is a popular topic in the news media. And it is safe to assume that a person who reads newspapers or magazines regularly would have a good idea of what the issues are surrounding NCEA, and what some of New

Zealand's educators and politicians think about NCEA. But it would be difficult to conclude that the average member of the public would have a good idea of what is actually measured on NCEA, the difficulty of the material, or what levels of proficiency are represented in the difference between an "achieve" and a "not achieve", or between a "merit" and an "excellence".

What about coverage on other programmes?

The analysis thus far has focused on NCEA because of the preponderance of articles concerning NCEA in the popular press. A selection of articles related to NEMP, TIMSS, and PIRLS concerned reports of releases of information from those programmes as they were announced. Articles about asTTle and PAT tended to be more related to the use of those measures in reporting concerning educational issues and programmes that used asTTle or PAT, as opposed to articles focused on the measures themselves

Conclusions with regard to news coverage

With regard to the presentation of assessment-related material in the news media, the following conclusions might be drawn:

- The preponderance of information concerns the NCEA programme, although other programmes are mentioned from time to time, usually in relationship to the release of findings from those programmes.
- The level of sophistication in the articles might be considered to be moderate to high on the whole, in terms of the level of background knowledge and interest assumed in the article as well as with regard to the level of sophistication with which the article is written.
- The information contained in the shorter articles would lead a reader to understand the basic idea behind NCEA and what it is used for. The magazine articles and longer newspaper articles would inform the reader regarding the controversial issues on the programme, but would do little to inform about any levels of specifics, or what different kinds of things children receiving different marks could actually do with respect to the content of the assessments.

Public Perceptions and Attitudes Toward Assessment

Although there are no direct evaluations of the assessment literacy of the public (that I could find), there are several reports that include surveys of the public's perception of their assessment literacy, as well as numerous polls concerning the public's views on assessment and more generally, schooling. This section begins with two polls that provide information on the New Zealand public's perceptions of their assessment literacy with regard to NCEA in particular, and then moves to looking at international polls on assessment and schooling.

In a 2003 New Zealand Council for Educational Research (NZCER) survey of secondary school principals, teachers, board members, and parents (Hipkins, 2004), parents were asked their opinions of NCEA. The parent responses are, of course, not the entire general public, but merely a portion of that public, and one that might be assumed to have somewhat more knowledge of issues concerning schooling than individuals who do not have children in school. Thus, their responses, to the degree that they reflect knowledge of NCEA, might be considered to be an upper bound on that knowledge in the general population. A series of questions were posed in relationship to parents' perceived knowledge and attitudes toward NCEA. It should be noted that NCEA was pretty much in its infancy when this survey was administered. The questions were presented in Likert format with Strongly Disagree, Disagree, Agree, Strongly Agree, and No Response/not sure being the response options. The questions asked and the parents' responses to them are presented in Figure 5.

Figure 5
Parents Attitudes Toward and Perceived Understanding of NCEA (2003)
(Numbers are percent responding.)

	Strongly Disagree	Disagree	Agree	Strongly Agree	No Response
The school has kept us well informed about the NCEA	5	17	42	10	26
There is too much conflicting information about NCEA	4	20	36	10	30
I am supportive of NCEA	8	13	34	10	35
The school is coping well with the implementation of NCEA	3	9	35	4	49
The NCEA way of assessing is better for learning	10	13	30	7	40
I don't understand NCEA	10	33	22	9	25
The NCEA has caused my child too much stress	10	36	14	3	37

Source: Hipkins, R. & Hodgen, E. (2004). *National Survey of Secondary Schools 2003*. Wellington, NZ: New Zealand Council for Educational Research.

This survey demonstrates that at the beginning of NCEA, large numbers of parents either had no response to items directly addressing the programme or were not sure of their answers. In particular, in response to the statement “I don’t understand NCEA”, only 43% disagreed (indicating that they felt they knew about NCEA). What can be seen here is that a number of parents do not believe they have enough information about NCEA to make an informed judgement.

In 2006, NZCER conducted a similar study (Hipkins, 2007). Parents were asked to respond to several statements concerning NCEA that were similar to the questions in the 2003 study, but with a slightly different choice set. Their responses to three of these items are presented in Table 6, along with the responses of principals, teachers, and boards of trustees members to the statement, “Parents don’t understand NCEA.”

Figure 6
Parents Attitudes and Perceived Understanding of NCEA (2006)
(Numbers are percent responding.)

	Missing	Strongly Disagree	Disagree	Neutral/No Response	Agree	Strongly Agree
The NCEA is a credible qualification in the wider community <i>(Parents responding)</i>	0	7	26	38	24	3
The NCEA is a valuable record of student learning <i>(Parents responding)</i>	10	4	14	32	31	7
I don’t understand NCEA <i>(Parents responding)</i>	10	10	31	19	20	10
Parents don’t understand NCEA <i>(Teachers responding)</i>	0	0	9	27	48	15
Parents don’t understand NCEA <i>(Principals responding)</i>	0	0	19	23	48	10
Parents don’t understand NCEA <i>(Board members responding)</i>	0	2	10	25	47	15

Source: Hipkins, R. (2007). Taking the pulse of NCEA. Wellington, NZ: New Zealand Council for Educational Research.

In this study, roughly a third of parents tended to give responses in the “neutral/no response” category. This finding is fairly consistent with what was seen in the 2003 survey, indicating a fair proportion of the parent population who appear not to have an opinion on NCEA. It may be the case that they understand NCEA and don’t have an opinion, but it is more likely the case that they felt they did not have enough information to hold an opinion (although, admittedly, this is an inference). When presented directly with the statement, “I don’t understand NCEA”, 30% agreed or strongly agreed, 10% did not respond, and 19% picked the “neutral/no response” category. Only 41% disagreed with the statement, indicating that they felt they understood NCEA. This number was 43% in the 2003 survey.

Teachers, principals, and boards of trustees members were asked whether they felt parents understood NCEA. They were not as confident in their assessment of parent knowledge as were the parents. Again, tallying the “strongly disagree” and “disagree” responses to the statement, “Parents don’t understand NCEA” as indicating that parents *do* understand NCEA, only 9% of teachers, 10% of board members, and 19% of principals felt parents understood. Also interesting is that in each of these latter groups, only about a quarter picked the “neutral/no response” category. These other members of the educational community reported a strong belief that parents fundamentally do not understand NCEA.

It is also interesting to see that the attitudes toward NCEA declined in the years between the two studies. This is in part attributable to the problems that NCEA had during that time that were well documented in the popular press. One could argue that parents received and believed the criticism that appeared in the press. Another possible explanation for the decline would be parents’ personal experience with NCEA through their children participating in the programme.

A survey conducted by the Maxim Institute in 2004 (Maxim Institute, 2005) is in general agreement with the NZCER findings in terms of parental knowledge of NCEA. In a survey of 1001 parents, they report that in response to the question, “Do you generally have confidence in the value of NCEA”, 31% said yes, 41% said no, and 29% said they did not know. In response to the question, “Do you think NCEA provides a clear measure of a pupil’s abilities”, 27% agreed, 42% disagreed, and 32% said they did not know.

Information from other countries

Although it is difficult to find much comparable information from many other countries, there is some information from the US. The PDK/Gallup Poll from the US has data that is pertinent and interesting (Rose & Gallup, 2007). The annual survey on public attitudes toward the No Child Left Behind (NCLB) legislation and standardized testing provides a useful framework for considering results from New Zealand. A sample of individuals from the general public was asked how much they knew about NCLB. A total of 54% said that they know a “great deal” (8%) or a “fair amount” (46%). The remaining 46% said that they know “very little” (38%), or

“nothing at all” (8%). The general sample was broken out into people who had children in school and people who did not. For the parents of school children in the 2007 survey, the results were 14% “great deal”, 51% “fair amount”, 31% “very little”, and 4% “nothing at all”. Thus, we see that parents report somewhat higher levels of perceived knowledge than the public in general.

Participants in the survey were also asked if increased testing in the US had helped, hurt, or made no difference to performance in local schools. The national totals were: 28% helped, 28% hurt, 42% made no difference, and 2% don’t know. Parents of school children were split equally evenly in their opinions, with slightly more parents thinking testing helped and hurt performance in schools, as compared to the general public.

A similar survey was conducted by the non-profit group Public Agenda (Johnson, Arumi, & Ott, 2006). They asked a sample of school parents: “How much, if anything, would you say you know about the No Child Left Behind Act – the federal education bill that was passed by Congress in 2001—a great deal, a fair amount, very little, or nothing at all?” Their responses were: “a great deal” (17%), “a fair amount” (38%), “very little” (33%), “nothing at all” (11%), and “don’t know” (1%). These results are remarkably similar to the pattern found in the PDK/Gallup Poll. Participants were also asked: “From what you have heard or read about public schools in your community, is the No Child Left Behind Act improving local public education, causing problems or don’t you know enough to say? Here the answers were: “improving” (24%), “causing problems” (21%), “don’t know enough to say/refused” (55%). Again, it can be seen that these results are similar to the question concerning the benefits of testing in the PDK/Gallup poll.

Turning from knowledge about assessment to attitudes toward assessment, and trends in assessment, Phelps (1998) reviewed a series of polls in the US on the public demand for testing over the previous decade. He found that there was considerable public support for school testing. In a separate study, Phelps (2000) looked at standardized testing trends at the international level. This research did not look directly at public attitudes or knowledge, but generally showed an increasing utilization in standardized testing in 27 countries and provinces, versus declining utilization in three and no change in one. It would seem to be the case that this trend has continued.

Conclusions with Regard to Public Attitudes and Perceptions Toward Assessment

The results from the NZCER surveys indicate that perhaps about a third of parents feel that they are not well-informed about NCEA, and that closer to two-thirds of principals, teachers, and board members feel that parents are not well-informed. Looking at roughly comparable surveys in the United States, we see similar patterns concerning the US No Child Left Behind act, which mandates testing of school children in most grades. In the US, 35%-45% (depending on the study) of parents reported that they knew very little or nothing at all about NCLB. In the PDK/Gallup survey, members of the general public report less knowledge of NCLB than parents. The percentage reporting little or no knowledge jumps from 35% to 46%. If we can infer the difference between parents and the general public found in the PDK/Gallup

survey to the NZCER survey, we might estimate that somewhere between 40% to 50% of the New Zealand public feels that they are not informed about NCEA.

Using the NZCER responses from teachers, principals, and board members about parental knowledge, it might be reasonable to conclude that somewhere around 40% is a “lower bound” for the number of members of the general public who do not know much about NCEA. Given the prominence of NCEA as the major assessment programme in use in New Zealand, and the evidence that parents probably know more than the public as a whole, this lack of knowledge is of considerable concern. One would also have to conclude that there is far less knowledge about the other assessment programmes, national and international, because they receive far less press. Furthermore, there is no reason to believe that the assessment literacy in general on the part of the public is particularly high.

Conclusions, Implications, and Looking Ahead

Albeit working from indirect sources, a number of tentative conclusions might be drawn about the assessment literacy of New Zealanders:

- The assessment literacy of New Zealanders, at least with regard to national assessment programmes, is probably not particularly high.
- Although not high, New Zealander’s assessment literacy is probably no worse than in other countries.
- The information that is made available to the public via the popular press tends to be superficial in content, and emotive in nature.
- The bulk of the information about assessment made available via the popular press concerns NCEA.
- Although there are alternative mechanisms for learning about assessment in New Zealand (websites for the programmes, as well as Ministry websites, provide information), the popular press appears to be the primary public source for assessment information.

The tentative conclusions lead to a number of implications, as well as to ideas on how the assessment literacy of the public might be increased. To begin, if the assessment literacy of the public is low, then it is difficult to have informed public deliberation about the efficacy of schooling in New Zealand. Furthermore, if the popular press is in fact the primary source of information about assessment issues, and if the articles in the popular press tend to be superficial and emotive, then public deliberations involving assessment, and ultimately the schools, will not be guided by the dispassionate appraisal of reliable information.

There is little evidence to suggest that there are national models for educating the public about assessment issues to be found elsewhere. Indeed, with years of very prominent discussion and debate on NCLB, the American public does not seem to be any more informed about assessment than the New Zealand public. Which leads to the questions of how serious a situation is this, and what might be done about it? The issue of the seriousness may well be answered as we watch another election cycle evolve. Where will education be in the political debates that precede the national election? How prominent a topic will it be and how will it be treated in the debate?

National testing has been an issue before in political discussions in New Zealand. It will be interesting to see how this unfolds this time around.

In addition to national issues, how does assessment literacy affect the educational process as it occurs in individual households with parents and students? Assessment literacy at the level of assessment of individual children has not been the focus of the analysis here – it would be even harder to address that question than to address the issue at the national level. But that does not mean that this level of analysis should not be addressed. For the most part, this level of communication occurs between the teacher and the individual parent as well as the school and the parent. Although this issue should be of concern in the development of a national assessment framework, it is one that most properly would be mediated at the school and classroom level.

Suggestions for Moving Forward

If we can agree that the assessment literacy of the public is not where we would like it to be, how can that literacy be increased? What steps might be taken to facilitate the public's understanding of the basic issues? First, it would seem, the problem needs to be deemed to be worthwhile. Are we really concerned about the assessment literacy of the public, or is the current level satisfactory? How much of an effort should be made to try to increase that assessment literacy? What would be the payoff of doing so?

Assessment literacy might have positive impacts in a number of areas. If employers better understood NCEA results and the qualifications they lead to, they might put a greater emphasis on them and the marks that potential employees received when they took them. If the public better understood how well New Zealand students were doing in comparison to students in other countries, and what kind of progress is seen in national assessments, it might be able to participate more fully in discussions over funding issues, class size, training of teachers, school structure, etc. If parents better understood the assessment results they get regarding their children, they would be able to be more active participants in their children's education.

Toward a Communication Strategy for Assessment

If it would be beneficial for the public to be better informed about assessment, how might a national assessment framework help to bring about that result? Part of a national assessment framework should be a considered approach to communicating with the public. They are unambiguously a deserving audience for our assessment efforts. *Thus, there should be a national communication strategy that would be a component of a national assessment framework.* Such a framework might include providing the media with detailed information about assessment particulars (displaying released items along with national performance levels), presenting quizzes for the public using items from assessments, and developing regular programmes of media communication. Additionally, assisting schools in their efforts to communicate assessment results at the school and national level would be helpful. It is only logical that our institutions dedicated to the education of the nation work toward the education of the public in understanding our successes and challenges.

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