

Professor Barry McGaw
ACARA
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Dear Professor McGaw,

*NSWSPC response to the
My School Website*

The following statement arises from deliberations within the SPC in response to the launch of the *My School* website and in the understanding that the website will continue to be a feature of the education landscape in Australia for the foreseeable future.

While we continue to question the imperative for its establishment, we are prepared to work constructively with any initiative that seeks to provide accurate, meaningful and usable information to parents about the operation of our schools. We set out a number of recommendations which we believe would make a positive contribution towards this goal.

The catalogue of concerns which professional educators, including the SPC, raised before the launch of the website has not diminished and has actually been reinforced by subsequent events. Consequently, in framing our response and recommendations, we have attempted to set down some principles for the re-development of the website to ensure its effectiveness in communicating with parents in a way that does least harm to the community and to the education process.

This least-harm element is reflected in the framing of some of the recommendations in "*if... then*" terms: while we make our preferred position clear, we set out alternative recommendations that would, in our view, limit or reduce any negative consequences

As an over-riding principle to all of ACARA's operation, SPC would wish to urge a far more open and consultative approach than has been evident to date, particularly in relation to its reporting functions. Consultations with system authorities are essential, however consultation with those working directly in schools almost always results in better policy, more efficient processes, smoother implementation and a greater level of understanding and satisfaction overall. While not unmindful of the sensitivities involved, SPC would be pleased to assist ACARA in any way that it can to ensure that ACARA's curriculum and reporting functions proceed as smoothly as possible and in the best interests of our schools and their communities.

I am sending this document to you in advance of its release to our membership later this week. There is a high level of interest in some of the issues that it raises, especially those that relate to the ICSEA and school comparisons. I would be pleased to convey any responses you might wish to provide at the same time.

Jim McAlpine
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15 March 2010

1. The School Statement

- a. Principle:** *The profile of a school on the website should open with a statement that provides a sound description of the school and its social, educational and geographic context; together with an outline of important information about its overall aspirations and challenges as a school.*

Recommendations:

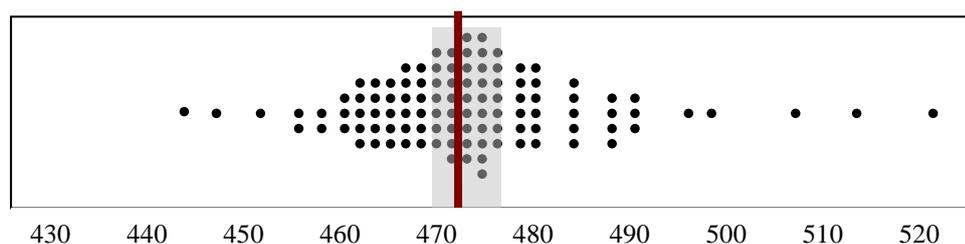
- (i) The School Statement should occupy the first-loaded page of the school's profile on the website, before any NAPLAN data is presented. Access to further pages should be subject to clicking a button which signifies agreement to a statement of terms and conditions for access to the data. That statement should set out a policy for the ethical use of the data which, among other things, explicitly prohibits the publication or sale of either the data itself or products based on it (such as "league tables") without the written consent of ACARA.
- (ii) The School Statement page should be expanded, setting out information on: (a) up to three major school achievements and/or significant programs in operation at the school and addressing the specific needs of the students and community and (b) Information on up to three major future directions for the school.
- (iii) The panel of "School Facts" should be moved to another page and be expanded in scope with additional content, including that set out in section 4 below.
- (iv) The School Statement should incorporate links to the school's website and their most recent annual report.

2. The NAPLAN Data

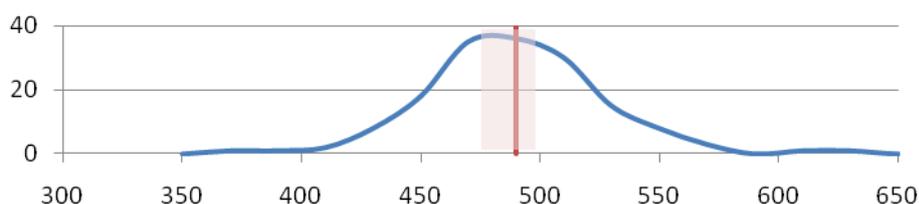
- a. Principle:** *The data presented should convey the maximum possible amount of meaning, in a form which is comprehensible to the reader. Normative (e.g. "average") and relative (e.g. "substantially") terms and concepts should be avoided where possible.*

Recommendations:

- (i) The use of a graphical form of presentation of the data which is more meaningful than the present system of averages and arbitrary colour codes, e.g.:



with each dot representing 1, 2, or 5 students (depending on the cohort size), or some other kind of frequency graph. e.g.



In each case, the shaded rectangle would indicate the school's median - with error range - and the red bar represents the national mean.

- (ii) Data for groups smaller than 10 should not be reported publicly, because (a) the data is unreliable and (b) the possibility exists of identifying individual students.
- (iii) In the circumstance that users of the website are being encouraged to compare the performance of schools on the basis of the NAPLAN data, the website should not report data for students who have been enrolled in that school for less than one school year.
- (iv) Data should be included that gives the proportion of students who have achieved established benchmarks in each skill domain, along with descriptors of the benchmarks in terms of what a typical student knows and is able to do at that level.
- (v) Subject to consultation with schools, appropriate trend and growth data for each school should be incorporated into the reporting framework to more effectively demonstrate the value added by the school in progressing their students' learning.
- (vi) If the use of normative measures must continue, the median for the school group should be reported, rather than the average, which (especially in the case of smaller groups) is subject to substantial fluctuations due to the effect of "outlier" scores.
- (vii) The definition, uncertainties and limitations of each class of data should be made available at the point of presentation on the website, via a hot-link or otherwise.
- (viii) That schools be given a minimum of two school weeks to review the ACARA-generated data to be published on *My School*, during which time they should have the opportunity to correct errors, provide clarifying annotations to the data, and/or adjust the School Statement.
- (ix) The use of "colour banding" should be discontinued because (a) it has become a substitute for a thoughtful and objective examination of the data, and (b) a significant fraction of the population is colour-blind, especially to red and green.

3. The ICSEA and School Comparisons

- a. Principle 1:** *Comparisons that are made in public should always respect the dignity and privacy of the people involved. Since the website's "similar-school" comparisons involve the public labelling of school communities on the basis of unreliable¹ measures of their social, cultural or economic circumstances, like-school comparisons are at best unethical and demeaning; at worst, irresponsible and misleading.*

Recommendations:

- (i) In the absence of ethical, evidence-based, educational reasons for publishing school-to-school comparisons on the *My School* website, the practice should be abandoned immediately.

If the publication of school comparisons must continue for non-educational reasons, then:

- (a) ACARA should urgently commission a transparent, consultative study of the statistical *reliability*² of ICSEA measures as a validating mechanism for comparing school performance and report the findings publicly.
 - (b) The use of ICSEA-based similar school comparisons should be suspended until their use can be independently validated and the public can be assured that the similarity is accurate, meaningful and comprehensible, rather than simply "statistical"
 - (c) ACARA should move immediately to the use of directly-obtained student data, rather than ABS measures, on which to base its measure of socio-educational advantage.
 - (d) Other variables should be accounted in the index, including school type, sex, NESB, etc, which are currently, by implication, categorised among the 30%-40% of factors "within the school's control" while they are quite manifestly not in the school's control.
- b. Principle 2:** *The school most likely to be genuinely and meaningfully similar to "my school" is "my school" in the previous year(s). Data on trends and growth in student performance over time within a school cohort can be compared with a far higher degree of confidence by both parents and educators than comparisons with other schools in other systems or other states, however well-matched their communities might appear to be.*

¹ See appendix 1

² Studies so far published by ACARA only address validity issues. The validity of any measure rests on its reliability and no study of this has been made available.

Recommendations

- (i) As soon as practicable, ACARA should move to develop, in consultation with schools, appropriate measures of trends and growth over time within each school.
- c. Principle 3:** *Comparisons of relative performance should involve schools which are otherwise alike in as many ways as possible. From a parent's perspective it is not sufficient to suggest that some selected features of their populations may be similar when many or all of the overt operational features of the schools are different.*

Recommendations:

- (i) That if “similar schools” listings are to continue, the lists should be culled to present schools of similar year range, resourcing and enrolment practices (selective/comprehensive, religious/secular, etc).
- (ii) That, if school comparisons are to continue, users of the website be cautioned regarding the tentative nature of similarities based on the ICSEA.
- (iii) That local school listings also be culled to present schools of similar year range and type to the target school.

4. Future Directions for Development

- a. Principle 1: Security.** *Since the website publication of results has made NAPLAN testing a high-stakes event for all involved, the administrative protocols in use for its role as a diagnostic and formative testing procedure are no longer appropriate.*

Recommendations:

- (i) That ACARA establish a review of the administrative protocols for NAPLAN testing to include external invigilators and increased security of test materials.
 - (ii) That ACARA begin the development of on-line administration and marking of NAPLAN tests.
- b. Principle 2: Parents and Community.** *Parents are partners with the school in their child's education and any picture of the operation of schools should encompass the role and place of parents. At present, the website makes little or no reference to them and appears to regard them as passive clients or consumers.*

Recommendations:

- (i) That the parent surveys foreshadowed by the Prime Minister are supported in principle by the SPC, provided a proper and effective consultative

process is adopted in the preparation of the surveys themselves and adequate protocols are in place for their implementation.

- (ii) That the financial commitment of parents be listed on the website, including all tuition fees, compulsory uniforms and equipment, required levies and donations, booking fees, etc
- (iii) That the website include any enrolment requirements and any tests or expectations of applicants and/or their families, including whether an interview or entrance test is used to rank or select applicants.

5. Other Matters - Senior School Outcomes.

Recommendations:

- (i) That the ATAR and similar tertiary entrance measurements NOT be used as a basis for reporting senior outcomes, since these are not inclusive measures and are designed by university authorities for their own internal purposes.
- (ii) Along with the development of a national senior curriculum, assessment and credentialing framework, ACARA should undertake the development of suitable nationally consistent measures that are inclusive and reflect student achievement within the senior school curriculum.
- (iii) Pursuant to the above, if an interim senior outcome report is to be used, then consideration should be given to the reporting of state-based measures

Appendix 1

Reliability of the Index of Community Socio-Educational Advantage (ICSEA)

Background

In the wake of the *My School* website launch, the Executive and officers of the NSW Secondary Principals' Council (SPC) received a number of queries concerning the operation of the ICSEA, particularly in relation to its use as the basis for the "similar school" groupings on which the NAPLAN performance comparisons are made. Many of the queries centred on the more overt differences among these schools and a good deal of derision was directed at the process on this basis.

More significantly, some thoughtful and well-informed queries were raised by principals in which they asserted that they could not find any basis - in their understanding of their school's community - for its relative position on the ICSEA scale, or for the population makeup (as shown by the quartile distribution) on which this was based. The SPC Executive established a task force to formulate a response the *My School* website generally, and engaged a Project Officer to research and provide advice on the particular matter of the ICSEA.

Methods and Findings

Without access to the detailed data on which ACARA based the ICSEA calculation, it is not possible to verify the assigned ICSEA values in absolute terms. However, it is possible to examine the published data and form comparisons, both internally – with comparable schools in *My School* – and with other data, such as equity programs based on socio-economic status, for example.

While such comparisons cannot be exact, there are instances where the principals' assertions appeared to be supported by the available data, others where it is not, and others where no conclusion can be drawn.

In the course of this process, a considerable number of instances were identified where the assigned ICSEA and the reported population quartiles were noticeably inconsistent with the data for "similar" schools. Appendix 2 lists nine schools in context with other schools on the same or contiguous ICSEA scores, where the quartile comparisons are vastly different from their neighbours. While it is appreciated that the internal distribution of scores within each quartile can vary greatly and impact on the overall measure, there are several cases in which it would be mathematically impossible to start from the quartiles listed and end up with the same index as the target schools' ICSEA "neighbours".

These cases, and many others, are so anomalous when taken in their context, that only two conclusions seem possible. The first is that the ICSEA was miscalculated due to programming or data errors. If this were the case, then it is most serious and would cast a pall over the whole exercise of "like school" comparisons and by extension, much of the intended purpose of the *My School* website.

A more probable conclusion is that these schools were deliberately shifted from their calculated position during the review phase of ACARA's process. Intuition favours this conclusion, since the altered positions of many of these schools accord much better with perceptions of the school than a position consistent with the published quartile composition would suggest.

Implications for the reliability of the ICSEA Process

On reflection, while the latter conclusion is more comforting, the implications of the (presumed) changes for the reliability of the ICSEA – and subsequent school comparisons – are almost as serious.

The theoretical basis of the ICSEA's validity as described in the ACARA Technical Paper³ seems sound and well-researched, however the practical calculation of it for the nation's schools in 2010 rested on (i) 2006 ABS Census data which is now out of date and will become progressively more so in the next few years; (ii) assigning the average SEIFA indices of the Census Collection District (CCD) to each student from that district. Compared to basing a calculation on recent enrolment data for each student, the process ACARA used is open to at least those two substantial sources of error and – arguably – several others.

The fact that ACARA built in a review process (albeit one that does not involve consultation with the schools themselves) is arguably an acknowledgement of the inherent uncertainties.

How much error?

Given the high stakes now placed on the *My School* comparisons by parents, politicians and the media, very little error can be tolerated. A movement of only a few ICSEA points can potentially alter the colour of the heading bands on the school's profile page, with all of the implications – positive or negative – that follow.

An estimate of the error can be formed by looking at where the "adjusted" schools appear to have come from in the ICSEA range, based on their quartile composition. While estimates like this cannot be precise, for the schools listed in Appendix 2 the magnitude of the changes appears to range from at least 50 to around 100 ICSEA units and possibly higher. This is a massive amount, given the sensitivities involved – of the order of a standard deviation in statistical terms. For comparison, the difference between a "pale green" and a "pink" header bar is 0.4 of a standard deviation (of performance) and the kind of ICSEA shifts described above could easily produce such a change in the "similar school" comparison values.

Of course, if the assumptions are correct, then these particular ICSEA values have, in fact, been corrected on the basis of data available to the NSW Department of Education and Training (DET), averting the potential ill-effects for these schools at least. We are fortunate that NSW DET has very robust, enrolment-linked data on which to make this kind of assessment, begging the question as to why these data were not used in the first place.

Without such data, we can only speculate on what the situation might be for other states, other sectors and indeed with other (unadjusted) schools in this state. We have been informed that about 6.5% of values have been altered nationally, with the suggestion that (only) about 150 NSW schools may have been changed. There is no publicly available information about which schools were changed, the amount of the changes, what the basis of the decision to change might have been, or any threshold difference that might have been judged as a "tolerable" error.

Conclusion

On this evidence, the basis used for the ICSEA calculation is seriously unreliable to the extent that large corrections have been required to bring some of the values into line with student-based data. Comparisons based upon the unamended data via the *My School* website would have been seriously flawed in such cases, yet Australian schools generally cannot be confident that all the warranted modifications have been made.

³ <http://www.myschool.edu.au/Resources/pdf/My%20School%20ICSEA%20TECHNICAL%20PAPER%2020091020.pdf>