

Abuse and Misuse of Psychometrics as a Threat to Vocational Psychology

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AUTHOR NOTE

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Abstract

Psychometrics—the science and technology of measuring psychological constructs—is a definitive feature of vocational psychology and career development. For a century, vocational psychology has produced and refined measures for research and practices in diverse industry sectors, including education, training, selection, and recruitment. We overview the philosophical foundations of post-positivism in contrast to an anti-psychometrics discourse emanating from critical scholarship so as to raise concerns that this critical commentary threatens the public's understanding of psychometrics, their ethical use, and utility. It is time for psychology to advocate for its science and technology, and push back against the iconoclastic rhetoric of its protagonists in the struggle for knowledge/power.

Keywords: psychometrics, career assessment, postmodernism, standardized testing, NAPLAN

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A red rose. Is it a beautiful thing? Most people would agree a red rose is a beautiful thing. Most people would recognize its unmistakable rosy scent and its luxuriant velvet petals. For these people, the rose's scent, sight, and softness may evoke thoughts, memories, future wishes, and perhaps emotions and behaviours. About all these things we may agree but the experience of the rose will be inherently individual. So common is humanity's shared adoration of the rose that its scent is reproduced for all to share in the form of perfumes, soaps, and other aesthetic pleasures. Such exquisite sharing is only possible by the similarities of humanity, of those human characteristics which allow us to know the world in common, yet, all the while, knowing that each and every one has a slightly different experience and way of knowing.

Therein, the paradigm of post-positivism in vocational psychology knows commonality in humanity with hues of individual differences. Conceptualizing psychological phenomena, formulating these as theoretical constructs, and arriving at agreed forms of description and observation, is normal science to an adherent of vocational psychology and career development. Formulating measures of these constructs underpins the technological practices of psychological assessment—psychometrics. The science that is vocational psychology has informed the practices of career development for than one hundred years. A good science (and scientist) welcomes critique, counter-argument, counter-factual, and evidence that renders a hypothesis rejected. This is the hallmark of hypothetico-deductive science (Popper, 1935/2005).

Vocational psychology emerged intellectually richer as a result of the so-called postmodern turn (Savickas, 1993) that began as a revolutionary critique to repurpose the science and profession (Richardson, 1993; Savickas, 1993), with some moderated enthusiasm

(Savickas, 1994). Progressively, postmodernist thinking that influenced psychology (Berger & Luckmann, 1966), broadly (Gergen, 1992, 2001; Kvale, 1992; McAdams, 1997; Prilleltensky, 1997, 1998), and vocational psychology, specifically (Blustein, 2001; Richardson, 2000), brought about transformative perspectives (Savickas, 1995) for renovating theory (Patton & McMahon, 2014) and models of practice (Brott, 2001; Polkinghorne, 1992; Savickas, 1992, 1993, 2001). For this intellectual boon, there is no regret. Postmodernist thinking challenged and induced vocational psychology into the birth of a new era that ushered in theories and practices emanating from the paradigms constructivism and social constructionism (Young & Collin, 2004; Young & Popadiuk, 2012). These momentous changes were brought about by critical thinking from within psychology and vocational psychology. Unfortunately, now there is an anti-scientific cacophony emanating from the academic discourses of education that springs from postmodernism and threatens to erode one of psychology's and vocational psychology's greatest technologies: psychometrics.

Psychology has produced no less than a century of contributions to knowledge and practices for education, but now it is susceptible to the critical hail of revisionists aiming to deconstruct post-positivist ways of knowing and doing evidence-based education. Blatant critical rhetoric is now focused on a treasury of knowledge accreted by researchers and practitioners who have given much to education by way of their science and technology—psychometrics. In the name of critical scholarship, iconoclasts fix their gaze on high profile large-scale assessment and psychometric tools used for educational policy research and development, such as the Program for International Student Assessment (PISA) for OECD nations and within our Australian context, the National Assessment Program Literacy and Numeracy (NAPLAN). The problem is that these arguments fallaciously conflate psychometrics with governmentality. Of course, the former may fall victim to the latter, but

such intellectual violence in no way excuses misuse and abuse of psychometrics. Pernicious critical scholarship is writ large in media and academic literature and we cite examples of the critical literature in which NAPLAN is the focus.

The Rose in Post-Positivism

All the sub-disciplines of psychology would have something to contribute to knowledge of the human experience of the problem of the rose, and all would admit that there are subtle unknowable individual differences between person to person, but all would theorize about that which makes us common (i.e., human). The post-positivist paradigm assumes that reality can be known and reported as experience shared among people with some degree of fuzziness due to individual and situational differences. The abiding quality of post-positivism is that it invites critique (Popper, 1935/2005). The hypothetico-deductive method articulated by Popper requires scholars to make every reasonable attempt to reject a hypothesis drawn from a particular theory. If a theory stands up to scrutiny and continues to make sense of a phenomenon more so than other theories, then that theory is taken as a preferred approximation of reality. To empiricists who measure, the “unknown” is known as “error”; to a post-positivist, error is a way of affirmatively knowing what is not the case; it is an observe image of reality.

The post-positivist science and technology, psychometrics, is born of “individual differences”. In post-positivist statistical terms, what “variation” is known about a given phenomenon is “explained variance” and that variation which remains unexplained is “residual variance”. According to the tenets of its ways of knowing, post-positivism is honest enough to definitively describe what is not and tentatively describe what possibly is. Such a stance is scientific.

Post-modernist Elision is but an Illusion

Ironically, postmodernism would require no precision and specificity in its discourse because its inherent slipperiness eschews critique, even from itself. Postmodernism is too broad a term to be definitively meaningful. The best to be hoped for by way of definition is an intellectual movement of scepticism and loss of faith in cultural and social institutions, evinced as a incredulity and criticism of grand meta-narratives (Lyotard, 1979/1984). This postmodern incredulity is a lack of trust, of belief, or even faith—an apostasy of sorts. Science is, however, and has always been, a discipline of trial and error, not of faith and doctrine. Science has never purported religious status or as a following of sorts; yet, science seems to endure the criticism of postmodernists intent on deconstructing its ontological and epistemological foundations, as if it were some kind of occult. It is as if postmodernism invented sceptical thought. The fact is that scepticism, the philosophy, and the sceptical questioning attitude that is quintessentially a feature of scientific thought were present long before postmodernism.

All the while postmodernist scholars rail against the agreed standards of what constitutes knowledge according to post-positivism because their espoused criticism is lionized as a postmodernist method that creates new perspectives (Gergen, 1992, 2001). This is little more than intellectual violence whereby the adherents of one discipline aim to epistemologically eradicate “the other”. What is patently evident is that postmodernism has failed to produce any substantive theory of pragmatic worth from these new perspectives. And, new perspectives these may be; however, a barren wasteland of empty ideas is not something to behold. Critical theorists’ guerrilla methodology is a hit and run approach to undermining other ways of knowing but it offers nothing in return for its aggression, for it is easier to destroy than to create. Critical theorists will name its offenders “colonizers”, yet fail to name and acknowledge themselves “guerrillas” with nothing less than their revolutionary

intent to tear down what is known and practiced by the colonizers. With what would these critical theorists replace current knowledge and cherished tradition? Ask them. One may suspect that the answer will be little more than another volley of criticism.

One postmodernist acolyte, Michele Foucault—a veritable genius—refused to define his position on many contentious topics. His critique of mental illness in “The Birth of the Clinic” (Foucault, 1994) is a touchstone for critical thinkers because it wrought a powerful argument that, quite rationally, brought the epistemology of psychiatry and clinical psychology into question. The Birth of the Clinic was a powerful force for good in the era of de-institutionalization. It inspired new perspectives on mental illness, conceptualizing it as a social construction in a discourse driven by the epistemology of the “medical model”. Great good came from this intellectual treatise on the power of discourse and power/knowledge. Indeed, the theories and practices of the mental health professions changed for the better. But, it was not the criticism that enabled patients to leave the institutions; it was, ironically, breakthroughs in medical science that produced new medications with lower side-effect profiles (e.g., Prozac); it was breakthroughs in psychological science that produced new therapies focused on changing thoughts and behaviours necessary for living in the real world (e.g., behaviour therapy) and community mental health services that enabled individuals to live a better quality of life.

The “gold standard” of postmodern philosophy is that things that constitute the ordinary, day-to-day experiences of life—otherwise known as reality to most folk—are not really real; these things are ephemeral, on the surface, a pastiche, relative, contestable, and inevitably someone else’s property acquired by colonization. In other words, a postmodern view is that one’s reality cannot be one’s own and it cannot be really real because your experiences in the moment are just a fleeting embodied flourish of discourse experienced “as if” real.

A logical outcome of postmodernist views on what is reality and knowledge is that your sense of who you are is not personally possessed by you, despite your experience that you know who you are and that you own yourself. No, in the postmodern vision, your sense of self is merely a reflection of your experience of and interaction with others using a discourse established by powers beyond you and your others. Your sense of purchase over yourself as a self is a pragmatic lie that is propagated according to discursive dynamics beyond your conscious awareness. The choices you make are predetermined; you have no volition because your thoughts have been set up to arrive at conclusions according to some arcane powers beyond your imagination; you are just a victim; you are an automaton controlled by higher powers who control knowledge and, therefore, power. This line of thinking makes way for scholars who argue against the lived reality of a crazy phenomenon known as “the individual”—that would be you, by the way.

The most pernicious logical outcome of postmodernism is that the individual is no longer responsible for being. The individual, as an agent with intrinsic will, is abnegated, abrogated, absolved, and, ultimately, absented from reality. This is an invitation to chaos. Only self-responsibility and living an ethical life in relation to and in agreement with others can resolve such nihilism. Relations and agreement require, by definition, an agreed set of standards as to what is real, relatable, and reasonable to one another, rather than a relativist revisionist stance that leaves a nobody standing nowhere knowing nothing. To where will such philosophy end up? At the edge of Nietzsche’s abyss?

That your lived, daily experience affirms to you that you are a someone knowingly knowing something is reason to doubt postmodernist (un)reality and (un)knowledge. As a mere human, you are unable to know the future (Hume, 1748/2007); however, you are able to know your experiences of the present in the present, and in relation to others and the physical world, real and imagined—and this is necessary and sufficient to be in the moment. What

you do with in that “reality” is your choice and, therefore, the reality you produce for yourself by your actions in relation to others and the physical environment, is you producing your life experienced as real to you. This is not a solipsistic take on reality, for it assumes that reality cannot be known in absence of others. Dispense with doubting Descartes and his *cogito ergo sum*, for doubt cannot be formed without a language to construct the very questions that compose doubt. Descartes could not have raised the doubts without the very language in which they were composed. No one human can create a language in the absence of another person if the other is to understand that language. It is possible for one human to create a language that is known only to that single human whereby that one talks with himself. This language of autopoiesis is a nihilistic pit, a trap of narcissism; it has no way of testing its veracity beyond its own logic, can know only itself, and thereby collapses into a singularity that has no connection to the universe—it is an existential black hole.

To be sure: Doubt is intrinsic to post-positivism, and it is the definitive feature of hypothetico-deductivism, which is an approach to knowing that is defined by the approach of using evidentiary data to challenge the veracity of a theory (Popper, 1935/2005). If, having withstood repeated tests by ostensibly counterfactual evidentiary data, then a theory survives another day. This critique by way of evidence is vastly different to critique by way of mere rhetoric and polemic. The difference between doubt in post-positivism and nihilism in postmodernism is that the former aims to create knowledge that is contextualized, pragmatic, and directed toward action in the world, whereas the latter lauds doubt as a research method in and of itself, with one inexorable objective: destruction of knowledge. *Ipsa facto*, postmodern critical scholars are beholden to no axiology that informs what is “right” and “wrong” in any given context. Present critical scholars an answer to a question that challenges their position and, rest assured, they will soon enough call up charges of colonization or some other rhetorical flourish to “other” the challenger.

Critical Theory, Critical Pedagogy

Within education there is a school of thought under the aegis of critical theory and critical pedagogy (e.g., Kellner, 2003). Adherents of this school take it upon themselves to call out social structures that maintain social strictures of marginalization, suppression, and colonization. The fallacious arguments made by critical pedagogues may conflate psychometrics with some other educational practice that is the focus of their withering critique (e.g., segregation; Knoester & Au, 2017). In their argument to change spaces within schools to favour a relational culture (which is not an unreasonable idea), Gitlin and Ingerski (2018) subtly blame standardized testing:

Currently the space of schooling is constructed for sorting through testing...Sorting is fueled by and the result of standardized testing, as well as the supposed objectivity of the standardized test itself. Just as the “rows of seats” illustrates separation of students from each other, so too does testing separate students by putting them in competition with each other...If standardized tests are fair and objective as claimed, then at least the sorting is fair and objective. (p. 17).

...a standardized test that does nothing to transform the relationship of the space of the school and adjacent experiences is inherently unfair. (p. 18)

The rhetorical elision is that standardized tests are the means to separate students from one another. The authors provide no review of relevant standardized tests that may or may not be relevant to the notion of space and relationships within school. Rather, standardized tests are demonized to support their claims for their neo-critical pedagogy.

Inappropriate Utilization

Within the academic literature about teaching and teacher education there is a mixture of polemical and empirical papers addressing teachers' understanding, administration, and application of NAPLAN assessment procedures and reports. An important theme is that

NAPLAN has indeed been used inappropriately to further political ends and misused by teachers who manipulate data. Another theme within the literature portrays teachers (and schools) as hapless victims or rebels against a politicized education system. What can be obfuscated in the flurry of critique is that it was the Government's website, My School (www.myschool.edu.au), that published summary NAPLAN data and that these summaries were consumed by the media—and critics—as a way to compare and contrast the performance of schools, to create league tables to (mis)inform families and students about their schools. So vociferous were the critics of NAPLAN that it became a focus of the political class and The Senate of Australia, no less, held a public enquiry into NAPLAN and its use within My School (Ragusa & Bousfield, 2017; The Senate, 2010).

In Australia, schools are part of complex systems of curricula, policies, laws, and government bureaucracies at state and federal levels. NAPLAN is a joint initiative of the federal and state governments. What makes NAPLAN political is that schools' results contribute to negotiating funding arrangements between the federal and state governments, and the schools. Furthermore, comparisons among the states are grist for media seeking stories that may become political embarrassments. Lingard and Sellars (2013) interviews with senior public services and experts, and analysis of NAPLAN data, led to their conclusion that a system of perverse financial incentives and political pressures underpin a dynamic in which NAPLAN results are the centrepiece. It would seem that state governments manipulated their agreed targets for literacy and numeracy levels in order to avoid political embarrassment or to attract funds from the federal government. Their findings are corroborated by other case studies in which schools' funding agreements were influenced by NAPLAN results (Lewis & Hardy, 2015).

A survey of teachers found their attitudes toward standardized assessment reporting to be positive, on the whole (Pierce, Chick, & Gordon, 2013); however, only 28% agreed with

the item about NAPLAN's utility for assessing student achievement. One of the factors identified in the research is that some teachers report insufficient confidence to use the data. Further research into teachers' statistical literacy highlighted the value of professional learning activities that enhance teachers' use of data (Pierce, Chick, Watson, Les, & Dalton, 2014).

The most disturbing topic within the academic literature is about teachers manipulating NAPLAN administration. Thompson and Cook (2014) state,

This article argues that manipulating the data is a regrettable, but logical, response to manifestations of teaching where only the data counts [sic]. (p. 129)

...increasing numbers of teachers are responding by manipulating the data.

Conceiving these responses to high stakes testing as manipulation, and not cheating, reflects a changing understanding of teaching brought about by the NAPLAN tests themselves. (p. 131).

...manipulating the data is likely to proliferate in the near future, as teachers come to understand ever more about the new 'rules of the game'. (p. 140)

Thompson and Cook draw from the literature a list of manipulative strategies that may minimize negative and maximize positive impacts on NAPLAN test results. It is somewhat reassuring that Thompson and Cook provided no empirical evidence for their claims that teachers are manipulating NAPLAN. Nonetheless, analysis of Australian media suggests some evidence of manipulation by teachers (Shine, 2015). Research involving interviews with teachers, principals and other school personnel did not report on deliberate manipulation; at worst, there was evidence of "actively preparing students to sit the test, including, whether intentionally or unintentionally, teaching to the test" (Hardy, 2015, p. 359).

The research cited here goes to the argument that NAPLAN has been misused in political and educational domains (Ragusa & Bousfield, 2017). When governments “game the system” (Lingard & Sellar, 2013, p. 634) and teachers manipulate data (Thompson & Cook, 2014) there is a risk that NAPLAN, as a form of standardized testing, is made disreputable in eye of the public. Analysis of the Hansard reporting of the government inquiry (Ragusa & Bousfield, 2017) provides evidence of that risk materializing. That politicians and public servants engaging in manipulate behaviour to protect their government reputation is a cynical act of expedience. Teachers who manipulate NAPLAN are not enacting the standards of their profession (Australian Institute for Teaching and School Leadership, 2011).

Public Rhetoric

Now we consider the very public rhetoric that is critical of NAPLAN to exemplify the misuse and abuse psychometrics. We turn a critical gaze on the rhetoric of those who would remonstrate against NAPLAN. The rhetoric in scope of our critique is antithetical to the fair use of psychometrics in education. We provide excerpts of news articles that includes NAPLAN in the list of alleged culprits for students not choosing to take degrees in teacher education, that NAPLAN is a solipsistic measure of itself, and that NAPLAN is an instrument for social engineering to maintain the middle-class.

Since NAPLAN’s inception, *The Conversation* featured a series of articles addressing standardized assessment and NAPLAN in particular. *The Conversation* is an online newspaper that is available free of charge to readers (www.theconversation.com). Its content is supplied by academic experts and a section of its charter specifies, “inform public debate with knowledge-based journalism that is responsible, ethical and supported by evidence.” *The Conversation* is produced by a not-for-profit entity with financial sponsorship from benevolent bodies, including charities and universities. To be fair and balanced in our

polemic argument, we acknowledge *The Conversation* includes articles that describe the merits of NAPLAN and how to optimize its utility for teaching practice and education policy (e.g., Hardy, 2016, December 14; Jackson, Adams, & Turner, 2017, November 24). We focus our critical gaze on a selection of articles not only because their rhetoric is contestable but also because *The Conversation* is esteemed as a source of independent journalism based in academic expertise. What is considered to be a contribution to public debate and responsible, ethical, and evidence-based journalism should be scrutinized.

Consider this enticing headline, “Seven Reasons People No Longer Want To Be Teachers” (Bahr & Ferreira, 2018, April 16). The authors claim, “The oldest profession – teaching – is no longer attractive” and bolster this claim with summary statistics that show decline in student preferences for entry into degrees in teacher education in Australia. What is not given is a link to the report from which the statistics emanate. Instead, the authors provide a link to another article in a newspaper that is protected by a paywall and owned by the media behemoth, News Corp. The authors do not present any trend data that would contextualize the single year of statistics used to support the alarming headline. The article goes on to list seven reasons why the profession is so apparently unattractive. Among their reasons is, given under the bold subheading, “Standardised testing obsession”:

Standardised testing has become a national sport, with PISA and NAPLAN. Much class time is spent preparing students to do well. The stakes are high for the teachers and their schools. While teachers do need to test their students to check on their progress, the national obsession is a problem. Teachers spend a great deal of time preparing students for these tests. Standardised tests are a unique testing genre, and teachers need to attend to this preparation without abandoning everything else they need to do. This is a challenge, and the first casualty is teacher creativity.

International reports also argue this point. Where's the fun in teaching if you don't have scope to be creative?

There is a subtle elision in the narrative that leads the reader to the assertion that standardised tests—NAPLAN—diminish teachers' creativity! A caption under a photograph of a young student with pencil in hand states, "Standardised tests, like NAPLAN, contribute to lack of enthusiasm to take up teaching".

As for any evidence to support these statements there is very little given in the article. There is a hyperlink embedded in the text "the first casualty is teacher creativity" to a heartfelt story written by an ostensibly disenchanted teacher who begins her blog article, "I was born into a long line of teachers, and with my mother and grandmother as key influences, I had a childhood very much focused on creativity and education." Therein the author renders a tragic story about creativity's apparent destruction in education—all very sad, but no evidence is forthcoming. And, as for the "International reports", the word "report" is hyperlinked to a segment of a book, not to an empirical study that actually proffers evidence for the exaggerated claim that teachers' creativity is doomed by NAPLAN and its ilk.

On the contrary, research conducted by the Australian Institute for Teaching & School Leadership (AITSL, 2016, 2017) did not report evidence that that NAPLAN is diminishing the vitality of the profession. A reasonable reaction to Bahr and Ferreira (2018) would have the reader ask the question, "Does Australia have a high rate of teacher attrition?" AITSL's (2018) answer seems rather straightforward: "No one knows for sure. Australia currently doesn't have a system to produce national shared data to tell us if teacher attrition is a problem here. Research estimates of teacher attrition vary widely from 8% to 50%." Notwithstanding Bahr and Ferreira (2018) citing one year of data for their claim that nobody wants to be a teacher, AITSL makes the point that there is a need for a national data warehouse to determine rates and causes of attraction and retention for the profession—in

other words, there is no reliable dataset on which to make rather alarming claims that “The oldest profession – teaching – is no longer attractive” and to subtly include NAPLAN in the blame list.

The Australian Government collects data about potential students’ applications, the offers of places from universities, and students’ rates of acceptance of their offers (Department of Education & Training, 2017). If one takes the number of applications to initial teacher education qualifications as evidence of the profession’s popularity among potential students, then one may curiously draw an alternative conclusion to the impending demise warned by Bahr and Ferreira on the basis of a decline in 2017-2018 applications to initial teacher education. Using their logic, one may (erroneously) conclude that the profession of teaching would grow in popularity on the basis of the 2016-2017 data that show a 2% increase in applications. However, one year of data is insufficient evidence to make a substantial claim about a profession’s attractiveness. Indeed, inspection of application and offer data extending from 2010 to 2017 are evidence rather limited change in applications ranging between 30 746 to 27 185, and actual offers between 24346 and 22 215. That there are consistently more than 20 000 students per year in the eight year period entering into teacher education degrees is reason to conclude the profession is actually attractive to newcomers. Furthermore, other empirical research suggests the potential for rising demand for teachers and oversupply in some sectors (Weldon, 2015), and that teaching remains a popular choice for school students who participated in a longitudinal study of career aspirations (Gore, Barron, Holmes, & Smith, 2016).

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Applicants | 30,746 | 28,503 | 29,717 | 29,604 | 28,812 | 28,382 | 27,185 | 27,733 |
| Applicants receiving offers | 23,633 | 22,808 | 24,001 | 24,346 | 24,001 | 24,121 | 22,215 | 22,382 |
| Offer rate | 76.9% | 80.0% | 80.8% | 82.2% | 83.3% | 85.0% | 81.7% | 80.7% |

Figure 1. Number of applications to undergraduate degrees in initial teacher education, number of offers to applicants, and proportion of application to offer across 2010 to 2017.

Adapted from Department of Education & Training (2017, p. 28).

What should one make of these data in light of the “Seven Reasons People No Longer Want To Be Teachers” proposed by Bahr and Ferreira (2018)? Their article published by *The Conversation* casts NAPLAN as one of the reasons for people no longer wanting to be teachers. It is too late to withdraw that pernicious message about NAPLAN; the article has been shared widely via social media and republished in other outlets. What should one make of the *The Conversation*’s editorial scrutiny and professed aim to “inform public debate with knowledge-based journalism that is responsible, ethical and supported by evidence”? As for the alarming claim about people not wanting to become teachers, at least the evidence of applications and offers (Department of Education & Training, 2017) absolves NAPLAN of guilt on this count.

Anti-psychometric and anti-NAPLAN rhetoric continues unabated in other articles in *The Conversation*. One critic states, “just as I.Q. tests do little more than test someone’s ability to do an I.Q. test, NAPLAN primarily measures students’ capacity to effectively sit NAPLAN tests” (Riddle, 2013, May 14). This assertion stands on its own in the article, as one sentence, as a paragraph, without an explanation of its meaning, as if it were a self-

evident truth. As a way forward, the author suggests that music is a useful medium for teaching literacy—nothing outlandish in that statement—and then concludes “perhaps if NAPLAN could measure singing then things would be very different” (Riddle, 2013, May 14). These statements are in the public domain. How would a reader without knowledge of the fundamentals of psychometrics understand these statements published by an ostensibly reputable source and a learned scholar?

Another alarming title “Testing Democracy: NAPLAN Produces Culture of Compliance” (Sriprakash & Loughland, 2014, August 20) headlines the framing of NAPLAN as an assault against democracy. The authors blame NAPLAN for narrowing the curriculum and state:

The displacement of critical thinking by NAPLAN positions schools as instruments of social control, rather than being sites for creativity, debate and change. The stakes are particularly high for the disadvantaged.

The authors allude to NAPLAN’s role in the middle-class replicating itself by way of an educational regimen that maintains social privilege and power structures. These dystopic concerns echo other claims that NAPLAN “tests have also been criticised of having an Anglo-Australian bias that privileges white, middle class world views” (Riddle, 2013, May 14).

There are no secrets. Yet, the critical commentary would have the public believe NAPLAN to be nothing less than a threat to education and democracy. NAPLAN’s limitations are known and openly discussed in a government enquiry (The Senate, 2010), and the technical reports about NAPLAN are available in the public domain (<https://www.nap.edu.au/>).

Summary and Conclusion

NAPLAN has become a target of vitriolic rhetoric that may undermine the public's view of standardized testing in education. One will not find in critical pedagogues' arguments any evidence that empirically challenges psychometrics on its own epistemological terms, amidst the data and methods of data analysis. Instead, one will find click-bate bleats on social media aghast at psychological science and technology. What is transpiring is a discursive incursion by critical scholars whose discourse is irrational and imprecise. Unless challenged, their arguments—reasonable or otherwise—will not only colonize the disciplinary discourse of psychology, but also erode the public's trust in empirical psychology and the technologies it has refined over a century.

Vocational psychology stands to lose a great deal if its intellectual heritage and treasury of psychometrics is disregarded because the apparatchik's cacophony convinces key stakeholders that *interests*, for example, cannot be assessed by psychometric methods. Now is the time for vocational psychology to address this threat to its intellectual heritage and, moreover, its future as a science that is the predominant source of knowledge for the career development profession.

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