



Some reflections of a school teacher

DOUG GOLDSON

Photo by Olivier Gerbault on Unsplash

ABSTRACT

This article contributes to the debate on school improvement. It is based on a series of connected reflections on the scope of methodology in teaching; research in teaching; institutional practices; mandatory training; and Saul's theory of institutional policymaking. The approach is eclectic and the methodology is a qualitative one based on questioning and reflection.

The danger of 'research-based' policy and pseudo-scientific methodology is its unassailable logic and Teflon solutions. The deconstructive goal of this article is to scratch the Teflon surface of teaching ideology and question what lies underneath. The constructive goal is to reconceptualise school teaching for the purpose of humanising it; to see it not as a pedagogic science but as a craft. The article is inspired by Henry Marsh's remarkable memoir of a brain surgeon.

KEYWORDS

teaching methodology, teaching research, teaching policymaking, professional responsibility.

Motivation and methodology.

This article contributes to the debate on school improvement. The methodology is qualitative and is focused on recent topics of interest in schools in Queensland, as well as in other Australian jurisdictions and internationally. These include: research in teaching, pedagogies (teaching methodologies) and their influence on school practice; professional and mandatory training; data driven performance monitoring; and Saul's theory of institutional policymaking (1992).

The article is a critical reflection on the intellectual and ideological status of pedagogies and their putative role in school improvement. Saul argues that the danger of 'research-based', pseudo-scientific methodologies is their unassailable logic, and so it is important in this article not to fall victim to one's own petard. It must be said that this article does not set out to *prove* anything, nor to provide *definite* answers, and, least of all, to provide *solutions*. The problem of modern institutions is that they suffocate under the weight of their own solutions! The critical goal is merely to scratch the Teflon surface of this ideology and to

question what lies beneath it. The constructive goal is to rethink the *science* of teaching as a *craft* of teaching. This is done in a novel way using the remarkable memoir of Henry Marsh (2014) to signpost the professional, institutional, and moral difficulties that school teachers face.

A pervading idea in this article is that what is true for medicine is also true for teaching. In both cases, for example, it takes years to learn, and the most difficult learning is done 'on the job'. Marsh writes that 'Doctors like to talk of the 'art and science' of medicine. I ... prefer to see what I do as a practical craft.' (p31) Such labels are important because the choice of label – 'art', 'science', or 'craft' – can have significant practical consequences for the way that new teachers are taught in university, trained in schools, and inducted and supported in schools when they begin to work independently.

Given the idiosyncratic nature of the approach taken, it is worth quoting Marsh in detail to establish the kinship between the two professional roles.

If we are ill and in hospital, fearing for our life, ... we have to trust the doctors treating us – at least life is very difficult if we don't. It is not surprising that we invest doctors with superhuman qualities as a way of overcoming our fears. If the operation succeeds the surgeon is a hero, but if it fails he is a villain.

The reality, of course, is entirely different. Doctors are human just like the rest of us. Much of what happens in hospitals is a matter of luck, both good and bad; success and failure are often out of the doctor's control. ...

A brain surgeon's life is never boring and can be profoundly rewarding but it comes at a price. ... You must learn to be objective about what you see, and yet not lose your humanity in the process. ... I hope that my book will help people understand the difficulties – so often of a human rather than technical nature – that doctors face. (p xi)

With a few judicious changes, this statement describes school teaching to a tee.

The well being of our children is paramount. We worry about their health, their happiness and their future. We fear for their future, we have to trust their teachers – at least life is very difficult if we don't. It is not surprising that we invest teachers with superhuman qualities as a way of overcoming our fears. If the student succeeds the teacher is a hero, but if they fail he is a villain. The reality, of course, is entirely different. Teachers are human just like the rest of us. Much of what happens in school is a matter of luck, both good and bad; success and failure are often out of the teacher's control. ...

A teacher's life is never boring and can be profoundly rewarding but it comes at a price. ... You must learn to be objective about what you see, and yet not lose your humanity in the process. ... I hope that this article will help people understand the difficulties – so often of a political rather than a classroom nature – that teachers face.

Policymaking on tramlines that go nowhere useful.

A chief difficulty faced by school teachers is that they are dominated by a policymaking elite that is isolated from the practical world of the classroom. A compelling argument for this as a general claim about modern society has been made by Ralston Saul (1992). An in-depth account of Saul's work is well beyond the scope of this article, but the flavour is conveyed by his claim that technocratic elites populate 'a self-justifying system which generates its own logic' (p21) and they lack a serious method of self-regulation. These 'devotees of technocratic logic are also prisoners of conventional solutions' in a system that

'marginalises opposition and sensible change' (p27) because 'the technocrat is convinced he is equipped with the greatest good of all time: the understanding of a system of reasoning and the possession of the equipment that fulfils that system'. He is 'detached from practical contexts, assertive, manipulative, and divorced from questions of morality' (p23).

A single example, taken from contemporary Queensland education, will serve to illustrate Saul's thesis. In 2012 the Queensland Department of Education released a policy called *United in our pursuit of excellence* which mandates that 'schools will develop a local pedagogical model that guides high quality teaching practice, in line with the *Pedagogical Framework*' (DETE 2015b). Consistent with a State School Strategy 2014-2018,

Each school is required to have a pedagogical framework ... to ensure 'high quality, evidence-based teaching practices focused on success for every student'. ... This requirement acknowledges the impact of quality teaching and the evidence that research-validated pedagogy ... improves student performance and develops successful learners. [my emphasis] (DETE, 2015a)

The statewide scope of this policy has spurred an industry of commercial training providers that offer *pedagogic solutions* and this has made the implementation of the policy costly. The policy itself was made at the centre, without consultation with teachers, and, in the words of Saul, exists as 'a self-justifying system which generates its own logic'. We have more to say on 'evidence-based practice' and 'research validation' later on, but for now observe that teaching practice is required to focus on 'success for every student'. What exactly does that mean? Clearly, it can not literally mean that every student must succeed. Does it mean something more than the banal statement 'teachers must do their best for every student' and, if so, what more?

One feature that all such technocratic 'solutions' have in common is that once they are implemented they run their course along rigid tramlines, immune from reflection or review, until they are supplanted by the next generation of solution. In the meantime, the role of the doctor, citizen or teacher is simply to experience them.

Professional mistakes and accountability.

I had operated on a young girl with a large brain tumour. ... The child ... bled to death. She 'died on the table' – an exceptionally rare event in modern surgery. ...

I had dragged myself up to the children's ward, where the mother was waiting to see me. She would not have been expecting to hear this catastrophic news. I ... managed to convey what had happened. I had no idea how she might react, but she reached out to me and held me in her arms and consoled me for my failure, even though it was she who had lost her daughter.

Doctors need to be held accountable, since power corrupts. There must be complaints procedures and litigation, commissions of enquiry, punishment and compensation. At the same time if you do not hide or deny any mistakes when things go wrong, and if your patients and their families know that you are distressed by whatever happened, you might, if you are lucky, receive the precious gift of forgiveness. (Marsh, pp179-80)

Notwithstanding the obvious differences in the severity of consequences of mistakes made by teachers and brain surgeons, most parents recognise teachers' best efforts with a fair measure of goodwill and realism as to what the teacher is capable of, and they acknowledge these efforts with gratitude. At the same time, the

teacher is never entirely free from the vitriol of some parents in whose eyes they have failed to live up to superhuman expectations. But the loss of sense in the surgical ward *is* more understandable than the loss of proportion sometimes experienced in school. More concerning is when school administrators, chasing KPIs and targets, apply similar superhuman standards to teachers, a risk that is only encouraged by slogans such as ‘success for every student’, and by ‘pedagogic frameworks’ and ‘scientific methodologies’.

Mandatory training.

I was late and there were already about forty people sitting glumly at desks ... I sat in the far corner at the back. ... I felt as though I was back in school ...

The seminar was scheduled to last three hours ...

Halfway through ... I picked up a message on my mobile phone ... One of my patients was dying and ... the family wanted to talk to me. ...

I hate breaking bad news to patients and their families in rooms like this, overheard by others, hidden by a flimsy curtain. I also hate talking to patients and their families – ‘customers’ as the Trust would have it – while standing, but there were no empty chairs in the bay ... It seemed inappropriate to sit on the bed. ...

‘I think she will probably die, but I just don’t know if it will be within the next few days’.

Her mother started crying.

... after a while I went to find the ward sister.

‘I think Mrs T is dying,’ I said. ‘Can’t we put her in a side room?’

‘I know,’ the sister said, ‘We’re working on it but we’re desperate for beds’ ...

I returned to the Training and Development Centre. ...

How strange it is, I thought as I listened to him talking, that after thirty years of struggling with death, disaster and countless crises and catastrophes, having watched patients bleed to death in my hands, having had furious arguments with colleagues, terrible meetings with relatives, moments of utter despair and of profound exhilaration ... how strange it is I should now be listening to a young man with a background in catering telling me that I should develop empathy, keep focused and stay calm. (Marsh, pp126-9)

Most teachers will recognise the sentiments implied here about the trite nature of mandatory training. Again, notwithstanding the obvious differences in the intensity of relationships that exist between surgeon, patient and family, and between teacher, child and parent, there is often a disturbing disjunction between what actually happens in the classroom and what we are told in training sessions is supposed to happen. Note how, whereas the surgeon has a powerful expert role within a hospital, once outside this narrow sphere of expertise, he is impotent to achieve something as simple as finding a quiet room (with chairs!) to tell a mother she is going to outlive her daughter. For the teacher too, the needs of individual children, coupled with routine lack of basic system resources to satisfy them, can become a painful daily experience. Instead of seeking real practical solutions to the problem of student needs – such as removing systemic scarcity – a solution which is expensive or politically inexpedient, the technocracy chooses a fake theoretic solution that is based upon the creation of an archetypic teacher with mythic superpowers – powers that can achieve the individual success of every student by using ‘research-validated pedagogy’.

Institutional goals versus human needs.

Marsh worked as a psycho-geriatric nurse when he was a student. This is what he says about it,

To go to work ... to be faced by ... twenty-six doubly incontinent old men in beds is an education of sorts, as it was to wash them and shave them and feed them, and pot them, and strap them into geriatric chairs. ...

One particularly catatonic patient ... could sit immobile for hours on end and served as a backrest for one of the therapists ... as she did her knitting. He was called Sydney ...

In the 1950s many of the patients I was now looking after – like the catatonic Sydney – had been subjected to the psychosurgical procedure known as frontal lobectomy. It was a fashionable treatment at the time for schizophrenia and was supposed to turn agitated, hallucinating schizophrenics into calmer, happier people.

The lobectomised men were some of the worst affected of all the patients ... I was shocked to find ... there was no evidence of any kind of follow-up ... Other than the notes made at the time of the patient's first admission ... the medical notes were empty even though the patients had been in the hospital for many decades. ...

I was surprised one morning ... to see the nursing officer come into the dining room. ... He had brougdrless of whether they have mastered the current level. This system is administratively simple but is clearly not 'focused on success for every student'. To achieve that, the system requires superheroes armed with 'evidence-based teaching practices' and 'research-validated pedagogy'. We see in this an example of technocracy at work: a real and practical solution to the problem of what to do when a student fails to reach the required standard, one that is based on teachers always working with students of a manageably diverse range of ability, is passed over for a fake and theoretic solution that is based on teachers using the latest technology and methodology to 'meet individual needs' in what is, in *fact*, an unmanageably diverse classroom. Inevitably, it is Sydney who pays the price for this policy failure – he is the next generation of functional illiterate.

Research validated and evidence-based practice.

The pendulum of fashion swings between two extremes: that we need to go back to 'basics' (the methods of the past); that we need to ride the latest bandwagon. Two simple facts can protect us from these extremes: research is a *valuable* agent of improvement and research is a *fallible* agent of improvement. It is a commonplace in the philosophy of science that observation and theory (and therefore research) is never objective. It is invested with the careers and hopes of the researcher and it is polluted by money. The industry of commercial training providers that *sell* pedagogic solutions to Queensland schools may believe in the value of their work, but they are not disinterested purveyors of truth. They are just as much a hybrid breed of salesman and evangelical technocrat, 'equipped with the greatest good of all time: a system of reasoning and the equipment that fulfils that system'.

One example of this is the ASOT (Art and Science of Teaching) improvement methodology (2007). It is saturated with research. The 2007 text is presented without qualification or doubt; all is *certain*, because all is supported by *research*. Some research findings are interesting in so far as they make significant claims, but these are undermined by descriptions of such abstraction that the claims are impossible to assess. This is understandable to the extent that the text is not meant to explore the research, so much as to use it to lend authority to classroom practice, but what then is the purpose of the endless tables of quantitative results? Is the authority conferred by these tables real or fake? That is, is the research reliable for the use to which it is put? Most of it is not done by Marzano, the author of ASOT, and much is not even done by the cited authors. The research findings are fourth-hand by the time we see them. Is it legitimate to presume a *universal* context of application, or is the research, in fact, 'detached from practical contexts, assertive,

manipulative, and divorced from questions of morality'? Is it merely supporting a technocratic dogma: to every *question* there is an *answer*; to every *problem* there is a *solution* in a *comprehensive* school improvement framework?

A strong sense of the intractable difficulties that are created when research is applied to public policy making is illustrated by another of Marsh's stories. This illustrates the three pitfalls of policy-oriented research – the research itself may not be reliable; the technocratic methodology may not be intelligible to the practitioner (doctor or teacher); the application area may be highly politicised.

I volunteered my services to NICE, the National Institute of Clinical Excellence, two years earlier. [a decision making body to approve drugs for the public health system] ...

I found myself standing next to the chairman. I told him that I had been to the Ukraine two weeks earlier and had been told that the drug trials there are a good little money spinner. Many of the hospitals are involved in trials for the big drug companies and I was told that the same patient might be put into several different trials since the doctors get paid for every patient they enter. If that is true, I said, the results are therefore meaningless. The chairman chose not to comment. The next presentation was by a health statistician and dealt with the cost effectiveness of the drug – in other words the question of whether the benefits for patients dying from the cancer are worth the drug's cost. ... I quickly became lost and furtively looked around me, trying to guess if the other committee members understood his presentation any better than I did. ...

In this kind of economic evaluation the extra life that patients may ... get from a drug is adjusted to make allowances for the fact that the extra time might ... be of only poor quality. ... This [adjusted time] is ... calculated ... [by] asking dying patients how they feel about the quality of their life, but it has proved very difficult to do this in practice since it often involves openly confronting dying patients with their imminent death. ... Instead, healthy people are asked to imagine they are dying ... and then asked how much they feel this would reduce the quality of their life. Their replies are used to calculate the quality of the extra life gained by using the new cancer drug. ...

Hope is beyond price and the pharmaceutical companies ... price their products accordingly. ... The methodology used for the drug in question was unrealistic, verging on the absurd, and I wondered how many of the people sitting around ... understood the difficulties and deceptions involved in treating patients who are dying, where the real value of a drug such as this one is hope, and not the statistical probability of living, possibly in great pain, for an average of an extra five months. (pp243-48)

Data.

The technocracy tells us that teachers today operate in a *data rich* environment where student *performance* and *improvement* can be *measured*. The facile nature of the 'ideology of measurement' is based on two elementary confusions. Sometimes it mistakes measuring for *judging* and sometimes it mistakes *counting* for measuring. The first error is common in Marzano's ASOT (2007). The second was recognised by E. W. Dijkstra long ago, when he compared the performance of a computer programmer and a composer of music,

Measuring a programmer's productivity by counting the number of lines of code is as ridiculous as measuring a composer's productivity by counting the number of notes on his score. (EWD 287),

But there is no question that the computer has revolutionised the *quantity* of data available to a teacher. Nowadays, *collecting* data is easy, but *filtering, selecting, organising* and *analysing* it is not easy, and this, after all, is the point of collecting it in the first place. Yet teachers are constantly asked to analyse student data and use it to inform practice. ‘*Evidence-based* teaching practices focused on success for *every student*’ is mandatory. This is an example of the alienation of theoretic technocratic goals, ‘detached from practical contexts’, from the practical context itself, which is that a secondary teacher’s first responsibility is to prepare 20 hours of classes per week for up to 150 students. Common sense dictates that, after doing that, together with a multitude of other duties, there is no time left over for analysing student data. Nor is the available data ‘well-rounded’ as to type – quantitative and qualitative. Individual student data is usually *reductive*; reducing a student to a history of test scores. Or the data is provided *in abstracto*, such as the research findings in ASOT, endless tables of numbers, scores, effect sizes and percentage changes. As opposed to what? Consider this story from Henry Marsh,

The last patient was a woman ... with severe trigeminal neuralgia. I had operated on her the previous year and vaguely remembered that she had then come back ... with recurrent pain ... but I could not remember what had happened afterwards. ... I prepared a speech of apology expecting her to look miserable with pain. Now, however, she was quite different. ...

‘I’ve been absolutely fine since the op,’ she declared.

‘But I thought the pain had come back!’ I said.

‘But you operated again!’ ...

I pulled her notes off the pile and spent several minutes failing to find something about her having had a second operation. Out of the inches of paper a brown tab stuck out – one of the few documents that the Trust has designed that is easily located.

‘Ah!’ I said, ‘Look, I may not be able to find the operating note but I can tell you that you passed a type-4 turd on 23 April ...’ ...

I pointed out to her that she had passed a type-5 next day – ‘small and lumpy, like nuts’. ... I told her that as a brain surgeon I couldn’t give a shit about her bowel movements although the Trust management clearly considered it a matter of deep importance.

We laughed together for a long time. When we had first met, her eyes were dull with pain-killing drugs and if she tried to talk her face would contort with agonising pain. I thought how radiantly beautiful she now looked. She stood up to leave and went to the door but then came back and kissed me.

‘I hope I never see you again,’ she said.

‘I quite understand,’ I replied. (p276)

This goes to the core of a surgeon’s work – the possibility of relieving human suffering – and it highlights the fundamental problem of the current focus on data. This experience, this emotional encounter, can not be recorded on a patient’s file. No pain scale can be devised that can *measure* the performance improvement from ‘dull eyes’ to ‘radiant beauty’. And a teacher’s daily work creates ‘data’ of the same sort. The way a teacher works in class is routinely based on this kind of non-computerisable data, on getting to know students as human beings, not as bearers of test scores! It is a *craft* that takes years to learn. It is neither a *science* nor a *method*.

Concluding remarks.

This article has reviewed aspects of ideological structures in Queensland schools. Expressed in the language of ‘science’, ‘success’, ‘validation’, ‘measurement’, ‘performance’ and ‘improvement’ these structures are progressivist and technocratic, but they are fundamentally one-sided. Henry Marsh eloquently

argues that a surgeon's role is concerned as much with *human relationships* as with surgical techniques, and this is even more true for a school teacher. A teacher's primary role is to create positive student affect; only secondarily is it to implement formal techniques. Concerning these human relationships, influential teaching methodologies are silent. By over-emphasising the formal, the procedural, the 'scientific' and the bureaucratic, such pedagogies can become counter-effective distractions that close off opportunities for building human relationships. They negate teacher autonomy and replace it with targets and procedures, thereby redirecting teacher effort into testing, data collecting and tracking.

The comparison between the working life of a surgeon and a school teacher has created an idiosyncratic framework in which to review current ideological structures in Queensland schools. It also serves as a concrete reminder of the pervasiveness of these structures in public institutions in general. A more general account can be found in Saul's (1992) impressively wide ranging and accessible analysis of modern institutions and also in the extensive literature on *new managerialism*. For example, Fergusson (2000) describes the consonance of education policy across political lines in the UK, itself consonant with Saul's theory of dominant technocracies. Such ideological structures are hegemonic, but also no less dynamic than the institutions they pervade. The first step to changing them is to see them at work, then to question their basis, function and legitimacy, and then to present a countervailing *alternative*. The alternative proposed here is Henry Marsh's *humanist* practice. It is a pedagogic model worthy of any school teacher.

ht with him a large laundry bag full of ... old suits The patients were all doubly incontinent so we kept them all in pyjamas as it was easier to ... keep them clean, but my fellow nurses and I were told that all the patients were now to be dressed in suits. So our poor, demented patients were all dressed up in sagging suits ... When I clocked in ... next day I found the patients all back in pyjamas ...

'The Royal Commission came yesterday,' Vince said to me with a grin. 'They were very impressed by the suits. The nursing officer didn't want you around in case you said the wrong thing.'

Vince was one of the most impressive people I have met in my long medical career. To work on that ward, with those hopeless cases, to treat them with such kindness and tact, was remarkable.

Thirty five years later the hospital is still there but the grounds have been sold and have become a smart gold course. [my emphasis] (pp114-116)

Teachers may recognise the mentality of a 'school audit' in these preparations for the Commissioners' visit, when they are prepped in advance of the visit so they might 'say the right thing' if questioned by the auditor. Nowadays each Queensland school must have its own 'priorities'; an insurance policy in case the teachers suffer collective amnesia and forget what their social function is. But the main reason for relating this story are Vince and Sydney. Every teacher will know other teachers like Vince. They work hard and selflessly, in difficult circumstances, and with good humour. They work with difficult students, who they nevertheless treat with respect and compassion. It is essential that we are regularly reminded of people like Vince. Sydney, on the other hand, tells a different story. He is a victim of professional *fashion* (to use Marsh's own word). It is hard not to interpret the circumstances of Sydney's lobotomy, and the telling lack of after-care, as an institutional solution to the problem of a difficult patient. Now, while acknowledging the difference in power between psycho-neurosurgeon, mental hospital and patient, and teacher, school and student, the question remains how often difficult students receive the 'same' treatment as Sydney in the school system?

Where is Sydney in today's school system? We are told that 47% of Australians are functionally illiterate (Badham, 2013). This statement raises important questions of veracity, but granting there *is* a problem of student literacy, what reasons account for it? A systemic problem clearly exists in the inequitable distribution

of school resources.

Australian students are on average performing well, both by national and international standards. However, this ‘on average’ performance masks both a decline in the overall performance across the entire distribution of students and the significant underperformance of students from lower socioeconomic and Indigenous backgrounds. ...

Research shows a clear relationship between the socioeconomic backgrounds of students and their school performance. Addressing the performance decline ... will require a strong focus and priority within any funding model to address levels of need. ... In line with their levels of need, students from disadvantaged backgrounds, schools with high concentrations of disadvantaged students, and underperforming schools will require additional support ...

Further attention also needs to be given to broader, more affective outcomes of schooling. These are less tangible than outcomes that can be derived through standardised assessments, though are of importance to Australia’s social and economic prosperity. [my emphasis] (Gonski, 2011, p34)

But at the school level the Sydney-factor arises whenever institutional needs take priority over student needs. To give one example of how this occurs in schools, consider how a student progresses from one level of learning to the next. This is not when they are proficient, but rather whenever a new school year begins, regardless of whether they have mastered the current level. This system is administratively simple but is clearly not ‘focused on success for every student’. To achieve that, the system requires superheroes armed with ‘evidence-based teaching practices’ and ‘research-validated pedagogy’. We see in this an example of technocracy at work: a real and practical solution to the problem of what to do when a student fails to reach the required standard, one that is based on teachers always working with students of a manageably diverse range of ability, is passed over for a fake and theoretic solution that is based on teachers using the latest technology and methodology to ‘meet individual needs’ in what is, in *fact*, an unmanageably diverse classroom. Inevitably, it is Sydney who pays the price for this policy failure – he is the next generation of functional illiterate.

Research validated and evidence-based practice.

The pendulum of fashion swings between two extremes: that we need to go back to ‘basics’ (the methods of the past); that we need to ride the latest bandwagon. Two simple facts can protect us from these extremes: research is a *valuable* agent of improvement and research is a *fallible* agent of improvement. It is a commonplace in the philosophy of science that observation and theory (and therefore research) is never objective. It is invested with the careers and hopes of the researcher and it is polluted by money. The industry of commercial training providers that *sell* pedagogic solutions to Queensland schools may believe in the value of their work, but they are not disinterested purveyors of truth. They are just as much a hybrid breed of sad operation. Out of the inches of paper a brown tab stuck out – one of the few documents that the Trust has designed that is easily located.

‘Ah!’ I said, ‘Look, I may not be able to find the operating note but I can tell you that you passed a type-4 turd on 23 April ...’ ...

I pointed out to her that she had passed a type-5 next day – ‘small and lumpy, like nuts’. ... I told her that as a brain surgeon I couldn’t give a shit about her bowel movements although the Trust management clearly considered it a matter of deep importance.

We laughed together for a long time. When we had first met, her eyes were dull with pain-killing

drugs and if she tried to talk her face would contort with agonising pain. I thought how radiantly beautiful she now looked. She stood up to leave and went to the door but then came back and kissed me.

'I hope I never see you again,' she said.

'I quite understand,' I replied. (p276)

This goes to the core of a surgeon's work – the possibility of relieving human suffering – and it highlights the fundamental problem of the current focus on data. This experience, this emotional encounter, can not be recorded on a patient's file. No pain scale can be devised that can *measure* the performance improvement from 'dull eyes' to 'radiant beauty'. And a teacher's daily work creates 'data' of the same sort. The way a teacher works in class is routinely based on this kind of non-computerisable data, on getting to know students as human beings, not as bearers of test scores! It is a *craft* that takes years to learn. It is neither a *science* nor a *method*.

Concluding remarks.

This article has reviewed aspects of ideological structures in Queensland schools. Expressed in the language of 'science', 'success', 'validation', 'measurement', 'performance' and 'improvement' these structures are progressivist and technocratic, but they are fundamentally one-sided. Henry Marsh eloquently argues that a surgeon's role is concerned as much with *human relationships* as with surgical techniques, and this is even more true for a school teacher. A teacher's primary role is to create positive student affect; only secondarily is it to implement formal techniques. Concerning these human relationships, influential teaching methodologies are silent. By over-emphasising the formal, the procedural, the 'scientific' and the bureaucratic, such pedagogies can become counter-effective distractions that close off opportunities for building human relationships. They negate teacher autonomy and replace it with targets and procedures, thereby redirecting teacher effort into testing, data collecting and tracking.

The comparison between the working life of a surgeon and a school teacher has created an idiosyncratic framework in which to review current ideological structures in Queensland schools. It also serves as a concrete reminder of the pervasiveness of these structures in public institutions in general. A more general account can be found in Saul's (1992) impressively wide ranging and accessible analysis of modern institutions and also in the extensive literature on *new managerialism*. For example, Fergusson (2000) describes the consonance of education policy across political lines in the UK, itself consonant with Saul's theory of dominant technocracies. Such ideological structures are hegemonic, but also no less dynamic than the institutions they pervade. The first step to changing them is to see them at work, then to question their basis, function and legitimacy, and then to present a countervailing *alternative*. The alternative proposed here is Henry Marsh's *humanist* practice. It is a pedagogic model worthy of any school teacher.lesman and evangelical technocrat, 'equipped with the greatest good of all time: a system of reasoning and the equipment that fulfils that system'.

One example of this is the ASOT (Art and Science of Teaching) improvement methodology (2007). It is saturated with research. The 2007 text is presented without qualification or doubt; all is *certain*, because all is supported by *research*. Some research findings are interesting in so far as they make significant claims, but these are undermined by descriptions of such abstraction that the claims are impossible to assess. This is understandable to the extent that the text is not meant to explore the research, so much as to use it to lend authority to classroom practice, but what then is the purpose of the endless tables of quantitative results? Is the authority conferred by these tables real or fake? That is, is the research reliable for the use to which it is put? Most of it is not done by Marzano, the author of ASOT, and much is not even done by the

cited authors. The research findings are fourth-hand by the time we see them. Is it legitimate to presume a *universal* context of application, or is the research, in fact, 'detached from practical contexts, assertive, manipulative, and divorced from questions of morality'? Is it merely supporting a technocratic dogma: to every *question* there is an *answer*; to every *problem* there is a *solution* in a *comprehensive* school improvement framework?

A strong sense of the intractable difficulties that are created when research is applied to public policy making is illustrated by another of Marsh's stories. This illustrates the three pitfalls of policy-oriented research – the research itself may not be reliable; the technocratic methodology may not be intelligible to the practitioner (doctor or teacher); the application area may be highly politicised.

I volunteered my services to NICE, the National Institute of Clinical Excellence, two years earlier. [a decision making body to approve drugs for the public health system] ...

I found myself standing next to the chairman. I told him that I had been to the Ukraine two weeks earlier and had been told that the drug trials there are a good little money spinner. Many of the hospitals are involved in trials for the big drug companies and I was told that the same patient might be put into several different trials since the doctors get paid for every patient they enter. If that is true, I said, the results are therefore meaningless. The chairman chose not to comment. The next presentation was by a health statistician and dealt with the cost effectiveness of the drug – in other words the question of whether the benefits for patients dying from the cancer are worth the drug's cost. ... I quickly became lost and furtively looked around me, trying to guess if the other committee members understood his presentation any better than I did. ...

In this kind of economic evaluation the extra life that patients may ... get from a drug is adjusted to make allowances for the fact that the extra time might ... be of only poor quality. ... This [adjusted time] is ... calculated ... [by] asking dying patients how they feel about the quality of their life, but it has proved very difficult to do this in practice since it often involves openly confronting dying patients with their imminent death. ... Instead, healthy people are asked to imagine they are dying ... and then asked how much they feel this would reduce the quality of their life. Their replies are used to calculate the quality of the extra life gained by using the new cancer drug. ...

Hope is beyond price and the pharmaceutical companies ... price their products accordingly. ... The methodology used for the drug in question was unrealistic, verging on the absurd, and I wondered how many of the people sitting around ... understood the difficulties and deceptions involved in treating patients who are dying, where the real value of a drug such as this one is hope, and not the statistical probability of living, possibly in great pain, for an average of an extra five months. (pp243-48)

Data.

The technocracy tells us that teachers today operate in a *data rich* environment where student *performance* and *improvement* can be *measured*. The facile nature of the 'ideology of measurement' is based on two elementary confusions. Sometimes it mistakes measuring for *judging* and sometimes it mistakes *counting* for measuring. The first error is common in Marzano's ASOT (2007). The second was recognised by E. W. Dijkstra long ago, when he compared the performance of a computer programmer and a composer of music,

Measuring a programmer's productivity by counting the number of lines of code is as ridiculous as measuring a composer's productivity by counting the number of notes on his score. (EWD

But there is no question that the computer has revolutionised the *quantity* of data available to a teacher. Nowadays, *collecting* data is easy, but *filtering, selecting, organising* and *analysing* it is not easy, and this, after all, is the point of collecting it in the first place. Yet teachers are constantly asked to analyse student data and use it to inform practice. ‘*Evidence-based* teaching practices focused on success for *every student*’ is mandatory. This is an example of the alienation of theoretic technocratic goals, ‘detached from practical contexts’, from the practical context itself, which is that a secondary teacher’s first responsibility is to prepare 20 hours of classes per week for up to 150 students. Common sense dictates that, after doing that, together with a multitude of other duties, there is no time left over for analysing student data. Nor is the available data ‘well-rounded’ as to type – quantitative and qualitative. Individual student data is usually *reductive*; reducing a student to a history of test scores. Or the data is provided *in abstracto*, such as the research findings in ASOT, endless tables of numbers, scores, effect sizes and percentage changes. As opposed to what? Consider this story from Henry Marsh,

The last patient was a woman ... with severe trigeminal neuralgia. I had operated on her the previous year and vaguely remembered that she had then come back ... with recurrent pain ... but I could not remember what had happened afterwards. ... I prepared a speech of apology expecting her to look miserable with pain. Now, however, she was quite different. ...

‘I’ve been absolutely fine since the op,’ she declared.

‘But I thought the pain had come back!’ I said.

‘But you operated again!’ ...

I pulled her notes off the pile and spent several minutes failing to find something about her having had a second operation. Out of the inches of paper a brown tab stuck out – one of the few documents that the Trust has designed that is easily located.

‘Ah!’ I said, ‘Look, I may not be able to find the operating note but I can tell you that you passed a type-4 turd on 23 April ...’ ...

I pointed out to her that she had passed a type-5 next day – ‘small and lumpy, like nuts’. ... I told her that as a brain surgeon I couldn’t give a shit about her bowel movements although the Trust management clearly considered it a matter of deep importance.

We laughed together for a long time. When we had first met, her eyes were dull with pain-killing drugs and if she tried to talk her face would contort with agonising pain. I thought how radiantly beautiful she now looked. She stood up to leave and went to the door but then came back and kissed me.

‘I hope I never see you again,’ she said.

‘I quite understand,’ I replied. (p276)

This goes to the core of a surgeon’s work – the possibility of relieving human suffering – and it highlights the fundamental problem of the current focus on data. This experience, this emotional encounter, can not be recorded on a patient’s file. No pain scale can be devised that can *measure* the performance improvement from ‘dull eyes’ to ‘radiant beauty’. And a teacher’s daily work creates ‘data’ of the same sort. The way a teacher works in class is routinely based on this kind of non-computerisable data, on getting to know students as human beings, not as bearers of test scores! It is a *craft* that takes years to learn. It is neither a *science* nor a *method*.

Concluding remarks.

This article has reviewed aspects of ideological structures in Queensland schools. Expressed in the

language of ‘science’, ‘success’, ‘validation’, ‘measurement’, ‘performance’ and ‘improvement’ these structures are progressivist and technocratic, but they are fundamentally one-sided. Henry Marsh eloquently argues that a surgeon’s role is concerned as much with *human relationships* as with surgical techniques, and this is even more true for a school teacher. A teacher’s primary role is to create positive student affect; only secondarily is it to implement formal techniques. Concerning these human relationships, influential teaching methodologies are silent. By over-emphasising the formal, the procedural, the ‘scientific’ and the bureaucratic, such pedagogies can become counter-effective distractions that close off opportunities for building human relationships. They negate teacher autonomy and replace it with targets and procedures, thereby redirecting teacher effort into testing, data collecting and tracking.

The comparison between the working life of a surgeon and a school teacher has created an idiosyncratic framework in which to review current ideological structures in Queensland schools. It also serves as a concrete reminder of the pervasiveness of these structures in public institutions in general. A more general account can be found in Saul’s (1992) impressively wide ranging and accessible analysis of modern institutions and also in the extensive literature on *new managerialism*. For example, Fergusson (2000) describes the consonance of education policy across political lines in the UK, itself consonant with Saul’s theory of dominant technocracies. Such ideological structures are hegemonic, but also no less dynamic than the institutions they pervade. The first step to changing them is to see them at work, then to question their basis, function and legitimacy, and then to present a countervailing *alternative*. The alternative proposed here is Henry Marsh’s *humanist* practice. It is a pedagogic model worthy of any school teacher.

Notes on contributor

Doug Goldson graduated from Leeds University (UK) in 1983 with a BA (Hons) in history and philosophy and later from London University (UK) in 1990 with a PhD in computer science. He spent 15 years as an academic computer scientist in London, New Zealand and Australia. For the last 19 years he has worked as a high school teacher of maths, science and English in the Queensland Department of Education, Australia. His interests include the philosophy, sociology and politics of school education.

This work was not conducted under the patronage of the Queensland Department of Education.

ORCID

Doug Goldson  <https://orcid.org/0000-0001-9023-0077>

References

- Badham V. (2013) *Illiteracy rates: Australia's national shame*. <http://www.theguardian.com/>
- Dijkstra, E. W. D. (EWD 287). <https://www.cs.utexas.edu/users/EWD/>
- Fergusson, R. (2000). *Modernising Managerialism in Education*. New Managerialism, New Welfare? Clarke J., Gewirtz S., McLaughlin E. (ed.). SAGE Publications
- Gonski, D. (2011). *Review of Funding for Schooling, Final Report*, Australian Government.
- Marsh, H. (2014). *Do No Harm*. Weidenfeld and Nicolson.
- Marzano, R. (2007). *The Art and Science of Teaching, a Comprehensive Framework for Effective Instruction*. Hawker Brownlow.
- Queensland Department of Education. (2015a). *Pedagogical Framework*. Internet document.
- Queensland Department of Education. (2015b). *United in our pursuit of excellence, agenda for improvement 2012-2016*. Internet document.
- Saul, J. R. (1992) *Voltaire's Bastards: The Dictatorship of Reason in the West*. Penguin Books.