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Engaging data-literate beginning teachers

Gen Y beginning teachers have an edge: they've grown up in an era of educational accountability, so when their students have to sit a high-stakes test, they can relate. **Judy Smeed** explains.

Last year, my daughter Jen graduated from university with education and science degrees and secured a teaching position at a regional Prep to Year 12 school in Queensland. She has graduated into a very different profession than the one I experienced as an early career teacher several decades ago: a world of accountability, high-stakes testing, publication of school data, risk management and data-driven learning. An understanding of these concepts and the ability to interpret education data are essential for the new teacher – and these are skills principals should try to recognise when engaging with data-literate graduates.

Because of their diverse employment backgrounds, young graduates can make an important contribution to the profession in the current climate of accountability. Many young graduates have been required to work as part of a team to achieve targets set by management as part of their employment conditions. Thus, unlike many more experienced teachers, many young graduates are accustomed to having their work observed and having their performance data analysed. As a profession, we need to recognise these competencies in our beginning teachers.

ASPECTS OF ACCOUNTABILITY

What then should graduates know about highstakes accountability testing? It is important that they realise accountability is not a localised phenomenon; that it is more than just meeting targets.

Maurice Kogan, in *Educational Accountability*, writes about the philosophical and the mechanical types of accountability. By the philosophical, Kogan is referring to the overarching

guiding objectives that underpin an organisation, while the mechanisms are the practices within the organisation.

In much of her work, Lorna Earl considers accountability in terms of the moral and the forensic. She defines moral accountability as being knowledgeable and fair in teaching and interactions with students and parents; and forensic accountability as providing information or justifications in some written form such as an annual report, a press release or even a student's report card.

Lisa Ehrich, in 'Principals as morally accountable leaders', posits moral and professional accountabilities for teachers — the moral referring to the ethics of care, justice and learning; the professional to the accountability of teachers being responsibility for a wide-ranging set of responsibilities within their daily professional lives.

Accountability in the form of high-stakes testing is the mechanical or the forensic and currently such accountability takes considerable time and energy in schools. However, the philosophical and moral forms of accountability are still also important in schools. In reality, this moral accountability has always been part of teachers' work. They have long been accountable for maintaining good order in their classrooms and carrying out various duties that extend beyond their teaching of the curriculum. It could, therefore, be argued that teachers are already comfortable with the moral or philosophical aspect of accountability. It is the forensic and mechanical aspects that, in recent years, have experienced a rapid growth and have exerted an ever-increasing pressure for schools to act differently. It might be, though, that through their past work experiences, young graduates are indeed already comfortable with the forensic or mechanical forms of accountability.

Much of Jen's energy as a teacher will be put into preparing her students for high-stakes tests. Though she and her friends did not sit the National Assessment Program – literacy and Numeracy (NAPLAN) – it has only been administered since 2008 – they are very familiar with the state high-stakes Core Skills test for Year 12 students in Queensland who wish to attend university. Because of their experiences as school students in the cur-

rent era of accountability, these Generation Y graduates may have a better understanding of what their students are going through than do Baby Boomer teachers, who finished their schooling well before the introduction of this particular state test.

Recently, the results of the high-stakes NAPLAN were published in the local statewide newspaper. The data indicated each school's percentage of students in each year level at each school who achieved above the national minimum standard. In many schools, more than 90

per cent of students were performing above the national minimum standards in the NAPLAN tests. The news was good, and therefore, maybe, a little uninteresting. Yet many of these schools were considered to be the traditional high-performing schools. Jen, however, teaches in a regional school. The performance data of these and Indigenous schools told a different story. The stark reality is that young graduates and early career teachers may be entering into a world of haves and have nots; and the publication of high-stakes testing data tends to reinforce this.

As an off-shoot of accountability, the publication of high-stakes educational data exerts immense pressure on schools and in particular, principals. When I pointed this out to my final-year university students, there was almost a communal shrug of the 22-year-old shoulders. What do you expect? The government puts up the money.

RISK MANAGEMENT OF DATA

Even though Jen will be teaching in a religious school, it is still an institution which relies heavily on government funding. Therefore the school can and will be called to account through testing and the subsequent publication of data. The challenges for young graduates and other more experienced teachers will be to use high-stakes data to assist them to identify deficiencies and risk-managing against poor data.

Many of Jen's more experienced colleagues in her new school will probably think that risk management is something new. In fact, as Anthony Giddens points out in his 2000 book *Runaway World*, in the original Portuguese, the root of the word 'risk' means 'to dare'. Unlike the Portuguese sailors who took a positive approach to risk and sailed in search of far away places even at the risk of falling off the earth, teachers nowadays tend to view risk negatively.

Personally, this saddens me. As a geography teacher, the spontaneous visits to the creeks that form the boundary of so many Australian schools were a wonderful teaching and learning experience in bygone days. To take their students on similar excursions, Jen and her fellow graduates will have to fill in a multitude of forms to gain the necessary school and parental permission.

Douglas Stewart and Andrew Knott in Schools, Courts and the Law, refer to this process as hazard identification in order to note and to minimise risk. Mary Douglas, in Risk and Blame, expands on this notion: rather than minimisation, she suggests that risk is seen as a danger and should therefore be avoided at all cost.

Such risk management in schools has led to what Lee-Anne Perry and Erica McWilliam, in their paper, 'Accountability, responsibility and school leadership', describe as 'a reductionist view of education, one defined in terms of scores, market appeal and conformity'.

In reference to the curriculum, this reductionist approach focuses on high-stakes testing. Stewart Ranson, writing in the *Journal of Education Policy*, suggests that in a reductionist situation, accountability is no longer 'merely an important instrument or component within the system', but 'constitutes the system itself'. The young graduate might even be moved to wonder whether testing is an instrument of assessment that informs the teacher, or whether it has actually become the curriculum?

Therefore, as Perry, principal of a large school in Queensland points out, 'Risk and risk management are part of our lives today and are embedded within the norms of our institutions, including

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schools.' Therefore, she argues, it is important that institutions respond appropriately to managing these risks.

Further to Perry's challenge, I suggest that principals should encourage young teachers to seek adequate knowledge and to apply skills they brought with them to the teaching profession.

In order to risk-manage their classroom data, beginning teachers will have to call on an array of skills that have not traditionally been associated with teaching. They will need to analyse and interpret educational data. Further, they will need to be able to implement strategies to address what they uncover from the analysis.

Universities need to give graduating students these analytical skills so they have the confidence to make sound educational decisions. Some of the skills they need are: being able to perform basic numerical and statistical operations; being able to organise and re-organise data; being able to identify trends, spot anomalies and apply the data to the relevant part of the curriculum; and being able to address problem areas back in their teaching. In this current accountability climate, failure by the universities to give their graduates such skills could be interpreted as shirking responsibilities to the profession.

TIPS FOR PRINCIPALS DEALING WITH DATA-LITERATE GRADUATES

If universities do present the profession with a data-literate graduate, how then should principals accommodate this new addition to their staff? Will their talents and expertise be left as an untouched resource or will they be given responsibilities in the school around data analysis and implementation? Principals need to be aware of their graduates' skills; to include beginning teachers in discussions on data and ask specifically for their interpretations; to position them on school data or statistic committees; and to encourage staff to draw on their knowledge and expertise.

In the current climate of accountability, the beginning teacher needs to possess an array of additional and different skills from those needed by their professional predecessors. Jen and her fellow graduates will need to draw on such knowledge and skills to make successful starts to their careers. Indeed, given their diverse employment backgrounds, young graduates may be able to

make an important contribution to teaching and learning in our schools.

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