Yes, but what has Semmelweis to do with my professional development as a tutor?
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Frank Coffield
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In 2008 he wrote Just suppose teaching and learning became the first priority..., and in 2009 All you ever wanted to know about learning and teaching but were too cool to ask, both of which were published by LSN and can be downloaded from the LSN website free of charge.

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Dedication

This paper is dedicated to the memory of Jane Robinson, who died on 11 July 2009. In October 1970 I was waiting nervously to give my first lecture at an English university (Keele) and kept rubbing my hands up and down the lectern to reduce my anxiety. As the lecture hall slowly filled up, I contracted a skelf in my pinkie and said so out loud to the great hilarity of the students in the front rows. But beautiful Jane stepped forward and removed it, so for me she will always be, not the girl with a pearl earring, but the girl with the tweezers who safely removed the skelf from my pinkie.

Acknowledgements

I would like to thank Mary-Jo Coffield, Sue Crowley, Tony Edwards, John Lowe, Murray McPherson and Ian Rodger, who commented so helpfully on an earlier version of this paper.
Dr. Ignaz Semmelweis, aged 42 in 1860 on a Jenő Doby's pen-drawing
The year is 1848, the year of revolutions in Europe. The place, Vienna. The flawed hero of my story is Ignaz Philipp Semmelweis, a young Hungarian doctor, who had been working for a couple of years since graduation in the maternity clinic of the city’s General Hospital. One of his responsibilities was to keep the clerical records of the two wards in the clinic, in the first of which the incidence of childbed fever fluctuated wildly between 5% and 30%, while in the second it remained steady at around 2%. The pregnant women were aware of this frightening difference, and begged to be admitted to the second ward; some even chose to give birth in the streets to avoid being admitted to the first ward. Semmelweis became ‘bewildered and tormented by the high mortality rate’ in the first ward (Carter and Carter, 1994: 45).

He began studying all the possible explanations for the significant difference in mortality rates, testing in particular the prevailing theory that miasma or ‘poisonous vapour arising from decomposed matter identifiable by its unpleasant smell’, could cause illness (Bostridge, 2008: 225). At roughly the same time Florence Nightingale in the Crimea was a firm adherent of this theory and prescribed vigorous ventilation to combat miasmas; her relentless advocacy helps to explain the insistence on ventilation in our hospitals to this day. But neither miasmas nor overcrowding nor any of the 30 other factors, which at the time were cited as possible causes, could explain the difference between the two wards.

The breakthrough in Semmelweis’s thinking came with the death of a close friend and colleague whose finger was accidentally pierced by a scalpel that had been used in an autopsy. Semmelweis, in noting that his friend died of the same disease as the women with puerperal fever, had spotted the crucial connection between contamination by cadaverous particles and childbed fever. He then remembered that in the first ward male medical students routinely touched the corpses of the women who had died the previous day, after which they went straight on to examine their live maternity patients. In the second ward, in accordance with medical practice of the time, female trainee midwives did not attend autopsies and so did not touch corpses. This advance in his thinking came at considerable personal cost to himself. He had chosen medicine to be of service to others but now realised that he himself had been responsible for the death of many of his own patients, precisely because he had examined so many corpses in his search for an explanation.
He tested his hypothesis by insisting that the medical students washed their hands thoroughly in a chlorine solution before touching patients: ‘Immediately, the mortality rate in the first ward section dropped slightly below the rate in the second section’ (Carter and Carter, 1994: 53). By the autumn of 1848, Semmelweis had stumbled on the cause of childbed fever, he had devised a method of reducing the mortality rate and he had collected impressive statistics to show that his preventative method was effective. ‘He had reason to expect that the chlorine washing would be widely adopted and that tens of thousands of lives would be saved’ (Carter and Carter, 1994: 56).

Meanwhile the political demonstrations and riots in the streets of Vienna had forced the dismissal of the state chancellor, Prince von Metternich; the universities in the Austro-Hungarian empire were granted a measure of self-regulation; but the Hungarians’ bid for independence was crushed by Hapsburg troops, aided and abetted by 200,000 Russian soldiers. Semmelweis’s brothers were punished for supporting the cause of Hungarian independence and, shortly afterwards, he himself lost out in competition (for his own post which had come up for renewal) to a young doctor, a non-specialist in obstetrics, who had the support of Semmelweis’s conservative, Austrian professor. He thus became the victim of not only the micro-politics of the hospital where foreigners like himself were distrusted, but also of the reactionary backlash against the macro-political struggle for greater intellectual and civil freedom being fought out in Europe.

He found work in a small maternity clinic back in Hungarian Pest, tested his ideas once more and in two hospitals succeeded in quickly reducing the mortality rate of childbed fever. But his data, which were becoming ever more persuasive, received only ridicule and rejection from the medical establishment in Budapest and Vienna. He gave lectures on his discoveries but he was cold shouldered by his medical contemporaries and his findings were scorned because they broke with their conventional thinking. He was remiss, however, in taking so long to publish a written account of his findings, producing a short essay in 1858 and his only book in 1860, more than 12 years after his original discovery:

*He expected his book to save the lives of thousands of women who delivered in the maternity clinics of Europe, but the book was ignored and had little impact on contemporary obstetrical practice. Semmelweis was outraged at the callous indifference of the medical profession and began publishing open letters in which he denounced several prominent European obstetricians as irresponsible murderers.*

Carter and Carter, 1994: 73

In 1865 he was invited to Vienna by former medical colleagues and tricked into visiting a lunatic asylum where he was committed on the order of three physicians, none of whom was a psychiatrist, and none of whom interviewed or examined him. He tried to escape, was badly beaten by the guards, was strapped into a straitjacket and died two weeks later at the age of 47 of blood poisoning, the very illness which in pregnant women is called childbed fever.

It took another 15 years before the germ theory of disease became widely accepted, when, for example, Joseph Lister’s ideas of sepsis and antisepsis, which built on Louis Pasteur’s research on micro-organisms, persuaded surgeons to sterilize their instruments and wash their hands thoroughly before and after operations. But the medical fraternity, protesting all the time that Semmelweis had interesting data but no theory, took an inordinately long time to accept the breakthrough:

*Each year, oblivious to the suffering and tragedy by which they were engulfed, they consigned thousands of young women to early deaths.*

Carter and Carter, 1994: 93
The above account owes a great deal to the very readable, scientific biography of Semmelweis by Codell and Barbara Carter, from which I have quoted extensively above. I wish, however, to dissent from one (but only one) of their judgements. When describing the long years during which Semmelweis was struggling to cope with being ignored or derided, Carter and Carter quote a medical colleague of Semmelweis’s to the effect that he defended his views ‘with a passion bordering on fanaticism’ (ibid: 75). They then add:

Semmelweis could have been showing early signs of progressive paralysis – tertiary syphilis. Or he could have been emotionally exhausted from overwork and stress

Carter and Carter, 1994: 75

The Carters have no evidence for the first statement, but they have for the second, as Semmelweis had planned to travel to a spa for a rest cure. In the absence of any hard evidence, would it not have been more just and humane to omit the imputation of a sexually transmitted disease? Has not Semmelweis suffered enough?

Imagine the mental anguish he must have endured when it first began to dawn on him that his professors would rather sacrifice thousands of women to death than change their entrenched views. ‘Frustration’ is too mild a term to describe what he must have gone through. He must have had high hopes that his research would change professional practice and save lives. And he would have been an exceptional young doctor if he had not envisaged a rosy career for himself after making such an important discovery so soon after qualifying. At first he would have become disheartened by the opposition and ridicule; the constant rejections and humiliations would have then begun to take their toll; and, as the years passed (17 from the time of his discovery until his death), without reform even being considered, he must at times have been close to despair. ‘Heavens’, he must have thought, ‘all I’m asking them to do is wash their bloody hands. Is that asking too much?’ It was. For he was asking much more of them than regular hand washing. He was expecting them not only to rethink traditional ways of thinking and familiar patterns of medical practice but to accept that they were the source of the problem. The very suggestion must have been shocking to some of his colleagues, insulting to others and inconceivable to others still. It is the most devastating comment you can make to a professional: ‘Your knowledge, skills and practical expertise are not just ineffective, they are not only harmful, they are positively lethal.’ He must have created huge resistance when he advanced his views ‘with a passion bordering on fanaticism’? But what should he have done? Chosen another research topic? Stopped thinking unorthodox thoughts? Dropped a gentle word in the ear of the permanent secretary? Become chair of an advisory board that reports its scientific findings to the secretary of state?
In a preface to her *Notes on hospitals*, Florence Nightingale argued that ‘the very first requirement in a hospital [is] that it should do the sick no harm’ (as quoted by Bostridge, 2008: 338–9). But, as we all know, after more than 140 years of medical progress, patients can go into hospital with one illness and come out with two more, thanks to MRSA and Clostridium difficile. It seems just as difficult now as it was then to get professionals to change their practice. As Atul Gawande expressed it:

*Stopping the epidemic spreading in our hospitals is not a problem of ignorance – of not having the know-how about what to do. It is a problem of compliance – a failure of an individual to apply that know-how correctly.*

Gawande, 2008: 22

In my slightly different words, it is a problem of changing the thinking and the practice of professionals who work in teams and who, like the rest of us, on the whole dislike change. And we dislike it for all the standard reasons: we are doing well out of the status quo, and we are afraid of the new and all the extra work it will bring in its train. The older we are, the more time and effort we have invested in our practices and so the less inclined we are to change them, especially if we are shown a video of a charismatic young teacher, working with a small group of perfectly behaved students who are all eager to learn. Sue Crowley, I guess, is right when she argues that ‘most people resist change from the best of motives not the worst and leaders or managers of change need to find out why there is resistance and work with it before they can implement change’ (Crowley, 2009).

Lee and Wiliam point out another difficulty which is rarely recognised: ‘asking a teacher to change their practice is like asking a golfer to change his or her swing during a tournament. Teachers are required to maintain the success they obtained with their old routines while developing new routines at the same time’ (2005: 279). The change required in Semmelweis’s case – *wash your hands!* – appears to be relatively simple but decades of exhortation (and even of hectoring) appear to have been ineffective. Why?

In the German-speaking world, the *Semmelweis reflex* refers not to a physiological reaction but to the almost automatic rejection of new ideas that contradict established beliefs or prejudices. Semmelweis’s contemporaries were faced with the deeply unsettling notion that they themselves were the source of the problem. And yet the notion of iatrogenic illnesses, induced by doctors through their diagnosis or treatment, is as old as Aristotle. It is one thing, however, to accept intellectually the existence of a particular class of disease (for example, iatrogenic), and quite another to face up to new evidence that your disinterested pursuit of knowledge via autopsy is responsible for the deaths of thousands of your own patients.
At a very early stage in his professional career, Semmelweis had devised an effective remedy for a scourge that had been plaguing the hospitals of Europe for generations. His personal tragedy underlines, however, the overwhelming significance of theory. \( ^6 \) First, he was defeated by the prevailing theory of miasma, which his theory-less data were powerless to disprove or dislodge. Second, it took another theory – sepsis and antisepsis – to provide a convincing explanation of the link between germs and disease before professional thinking and practice began slowly to change. Third, perhaps his medical superiors displayed too much reverence for theory; and more lives would have been saved had they shown more respect for evidence and for a successful remedy that contradicted their favourite explanation. \( ^7 \)

Moreover, Semmelweis, for all his brilliant insights into the causes and prevention of childbed fever, did not seem to see the importance of having an effective model of change. For one thing, he did not publish his results for 12 years, relying instead on lectures and letters to the press, which became steadily more abusive and bitter. Calling one’s former professor and head of department ‘the Nero of medicine’ was not, and is not, an ideal way to ingratiate oneself with one’s superiors. And yet one’s heart goes out to a man who, through meticulous investigation and re-investigation, had developed a means of preventing the deaths of thousands of women if only he could convince his deeply conservative Austrian professors; and as precious time continued to pass, he had to face the terrible realisation that he was not going to convince them. All the classical ingredients for conflict were present, apart from sex. Here was a young, radical, outspoken, innovative, working-class, provincial Hungarian assistant openly challenging the expertise of his middle-aged, illiberal, staid, unimaginative, upper middle-class, metropolitan Viennese professors. The real surprise would have been if he had managed to convince them.

Telling people (or worse still, threatening people) that they just have to change rarely works. Inviting people in the teams within which they work to find a solution to a serious professional problem facing them is more likely to be successful, as the continuing fight against hospital-induced infections is demonstrating (see Gawande, 2008).
As I became engrossed in Semmelweis’s story, the tragic sense of lost opportunities and avoidable suffering and death verged on the unbearable. ‘All told, in nineteenth-century Europe, childbed fever killed more than a million women’ (Carter and Carter, 2005: viii). It is a moving and disturbing story, but has it any relevance for the world of education? Sometimes it is easier to see the significance of arguments in a field closely allied to one’s own, just as it is often easier to evaluate the strengths and weaknesses of English educational policy by seeing it through German, French, or even Scottish, eyes.

Some parallels suggest themselves immediately. For example, I have long thought that an equivalent in education of Florence Nightingale’s first requirement in a hospital (that it should do the sick no harm) should appear above the staff room of every school, college and university in the country. My suggestion would be ‘Do the minimum harm’, which I think is preferable to the rash claims of Ministers who insist on nothing less than step changes, paradigm changes and radical transformations. These phrases have been so overused by Ministers and civil servants that instead of encouraging people to change, and change at top speed, they only succeed in irritating all those who realise that change is not won so easily. My suggested analogue for government would be for Ministers to introduce a lengthy period of radical non-intervention and to reflect on Amartya Sen’s comment: ‘The power to do good goes almost always with the possibility to do the opposite’ (2001: xiii).

The Semmelweis case, however, demands more than mild provocations. In addition to the Semmelweis reflex, there are what I call the insistent Semmelweis questions. For example, what policies and practices are we currently enacting in education that future generations will view with disbelief for the harm they do? What contemporary policies and practices do we already suspect are storing up problems for the future? What changes should we be making to our thinking and practices before they do even more harm? Is there an equivalent in education to the continuing failure in medicine to eradicate hospital-induced infections? Are professional thinking and practice as difficult to change in education as they appear to be in medicine?

Before pursuing any further comparisons, a major difference in scale between medicine and education needs to be acknowledged. The number of deaths in England and Wales in 2008 attributed to MRSA was 1500, a considerable reduction from 7684 deaths in 2003 (Office for National Statistics, 2009). In Semmelweis’s clinic in Vienna around 600 mothers a year were dying out of a total of 3000; he was dealing quite literally with matters of life and death. No such stark choices face us in education, the evidence base tends to be more blurred and confusing and yet we are still dealing with the life chances, the opportunities (or lack of them) and the well-being of millions of children and young people in each generation.
The rest of this article will respond to the Semmelweis questions at three levels – the macro level of government, the meso level of institutions and the micro level of individuals – because I am aware that I find it easier to behold the mote in the government’s eye than the beam in mine own.

a. **Counter-productive government policy**

Looking back over education from the mid 1850s, for all our undoubted successes, we have as a nation singularly failed to educate that section of the poor and underprivileged who make up the long tail of underachievement in the UK. According to government figures for September 2009, there were, for example, 935,000 young people not in education, training or employment (Jones, 2009). Moreover, for all the significant increases in investment in education since 1997, the examination system at 16 still ‘fails’, year after year, around 50% of each age cohort who do not achieve the government imposed standard of five good GCSEs including English and maths. Whether it makes electoral sense for even left-wing politicians to treat as failures the sons and daughters of 50% of their constituents, the young people themselves are well aware that they are treated as if they were ‘failures’. The continuing strong correlation between low social class origins and educational success is, to my mind, the educational equivalent of the medical failure to eradicate hospital-induced infections.

Is it, however, possible to point to government policies that have turned out to be counter-productive and self-defeating? At the start of my career, over 40 years ago, I was dimly aware that government policies could unintentionally be mutually incompatible and unhelpful. Over the last 30 years I have slowly and reluctantly come to the conclusion that government policy is no longer the solution to our difficulties but our greatest problem (see Coffield, 2008). Even if each initiative proved to be successful (which is far from the case), the sheer weight of new policy and its constantly changing nature (every new Minister with his/her own raft of measures) have become major constraints on professionals, diverting their time and energies from the needs of learners. The self-defeating nature of English educational policy is not, therefore, a minor, technical defect: it has become its most distinguishing and dangerous characteristic. Evidence abounds and every week brings further examples like the *Apprenticeships, Skills Children and Learning Act* (2009), which removed funding for the education and training of 16–18 year olds from the defunct Learning and Skills Council and transferred it to 150 local authorities. So, for example, colleges that have students coming from 20 or 30 different councils, will be forced to employ new staff to cope with the additional administration. Will anyone ever own up to having thought of this measure as an improvement? I have restricted myself to three further instances in the text but provide many more in an end note:

- the notion that the private firm is the most appropriate model for all public-sector organisations including education, despite the collapse of Rover, Woolworths and Lehman Brothers
- the importation of the language of business and management into education, whereby students became ‘customers’, then ‘bums on seats’ and finally ‘inputs and outputs’ so that the processes of education (learning and teaching) became neglected; the phrase ‘bums on seats’ draws attention to one part of students’ anatomy, but unfortunately not where cognitive psychologists have located the seat of learning. ‘Junk language’ is as damaging to our minds as junk food is to our bodies
- the league tables which ensure that, for every school or college which moves up the ratings, another must fall (see Hodkinson, 2008).
For this paper I focus on the perverse effects of testing and assessment, at national, institutional and individual levels.

b. National testing and assessment

In May 2008, the House of Commons (HOC) Select Committee on Children, Schools and Families issued a report on testing and assessment in England in which they claimed:

_We received substantial evidence that teaching to the test, to an extent which narrows the curriculum and puts sustained learning at risk, is widespread._

_HOC, 2008: 49_

In short, students are getting better at taking tests but poorer at learning. A-level students, the report continued,

_Come [to university] very assessment-oriented; they mark-hunt; they are reluctant to take risks; they tend not to take a critical stance; and they tend not to take responsibility for their own learning._

_HOC, 2008: 49_

Again, to summarise, the current testing regime is not producing critical, independent thinkers. The report went on to argue that vocational students...

... _arrive at university having learned techniques and how to apply them by rote. The consequent lack of deep understanding of the subjects they have studied at school leaves them unable to solve problems in real-world situations._

_HOC, 2008: 49_

So they find the transition to higher education difficult because they have no synoptic understanding of their subject(s), partly because the vocational curriculum is so often modular and bitty. Research into the transition of vocational students into higher education reveals that, compared with A-level students, ‘those with VET [vocational education and training] qualifications have a much higher risk of not obtaining a place in HE and of dropping out after their first year. But the picture is much more favourable for those combining the two pathways...’ (Hayward, 2008: 2). The transition of vocational students is made more difficult by the evidence showing that ‘HE lecturers often have limited knowledge of vocational qualifications in their field’ (Hayward, 2008: 3).

A different criticism can be levelled at the curriculum of A-levels where, for instance, the tests at A2 level as well as at AS level require far more regurgitation of factual information (especially in Biology) than display of higher order skills such as synthesis or evaluation. It is therefore no surprise that the Select Committee, chaired by a Labour member (Barry Sheerman) and with a majority of Labour MPs, concluded that:

_The use of national test results for the purpose of school accountability has resulted in some schools emphasising the maximisation of test results at the expense of a more rounded education for their pupils._

_HOC, 2008: 3_

Again, in my words, government policy on testing, as enacted by both Conservative and New Labour administrations, has resulted in teaching to the test, a narrowing of the curriculum and a serious neglect of those pupils who are unlikely to meet the target of five good GCSEs. I wish to emphasise that I am not blaming the secondary schools or the teachers for this ‘learning outcome’: the main responsibility lies squarely with government policy. I also want to stress
how extreme educational policy in England has become: no other country in the world has such an extensive battery of national tests.

None of these findings of the Select Committee came as a shock to anyone working in education. For years the evidence of the baleful effects of high skills testing has been slowly building up. For example, Wynn Harlen and Ruth Deakin Crick carried out a systematic literature review of the impact of summative assessment on students’ motivation and concluded as follows:

*When passing tests is high stakes, teachers adopt a teaching style which emphasises transmission teaching of knowledge, thereby favouring those students who prefer to learn in this way and disadvantaging and lowering the self-esteem of those who prefer more active and creative learning experiences.*

Harlen and Deakin Crick, 2002: 62

c. Testing and assessment in schools and colleges

When the GCSE results for 2008 were published, the head of the comprehensive that made the biggest improvement of any school in England commented: ‘We are an exam factory. I have no issue with that’ (Curtis, 2009). Well, I have. I would not want to teach in such a school nor would I have wanted our two children to attend such a school. I fully understand that schools and heads, threatened with closure by government if fewer than 30% of their pupils achieve at least five good GCSEs including English and maths, have responded to intense pressure by stressing exam results above all other considerations. But let us not pretend that these pupils are receiving an education.

Suppose for a moment, that the present government’s drive for excellence were to be successful over the next few years; what would our schools and colleges look like then? If we take our notions of excellence solely from the state, that is, excellence is defined solely by steadily increasing test scores, then the risk is that more and more of our institutions will end up as nothing more than exam factories. The main driving force for change within the post-compulsory sector in England at present, has become fear, fear of poor examination results and inspection grades, and fear of closure.

Another option would be to look to British business and seek to turn our colleges into ‘high performance learning organisations’, where staff are valued for their impact on the ‘bottom line’, be that profits in industry and commerce, or test scores in education (see Fielding, 2007). We in education, however, have different values where we aim to treat people as full human beings and not as a means to an end, whether that is monetary advantage or better test results. So instead I would prefer us to choose to create ‘person-centred learning communities’, the main characteristics of which I briefly describe as follows:

- Learning is not treated as another task for senior management to deal with but becomes the central organising principle of the college. Learning takes place at individual, group and organisational levels; all tutors are learners and all learners tutors.

- Tutors and students treat each other as full human beings and not as disembodied inputs and outputs. Teachers and students have the same, shared values and accept a collective responsibility for outcomes (see Fielding, 2006).

- Principled dissent is not only tolerated, it is positively encouraged. Colleges and senior management teams (SMTs) grow by being challenged, by staff at all levels being able to tell truth to power and by SMTs viewing ‘difference, debate and disagreement ... as the foundation stones of improvement’ (Hargreaves, 2003).
Senior management treat the staff in the same way staff are supposed to treat students. And, if only we had a learning system, government and government agencies would treat SMTs in the way they are supposed to treat their staff.

Tutors have the intellectual and physical space in which to experiment with ideas, techniques and resources, and to make mistakes in the constant search for improvement. They view their work as a ‘shared experiment, [as a] collective exercise in trial and error’ (Sennett, 2008: 288). Learning to work well in teams enables them ‘to govern themselves and so become good citizens’ (Sennett, 2008: 269).

Teaching and learning are improved by being informed by research, reflective practice, and ‘joint practice development’ (JPD) rather than by identifying and disseminating ‘good practice’. JPD takes place where tutors, working as equal partners, have the time to create and adopt new practices with professionals from other institutions (Fielding et al, 2005). There is only one problem with the identification and dissemination of ‘good practice’: it doesn’t work, because it is implicitly saying to those whom you want to adopt the ‘good practice’ that their current practice is bad or inferior and so resistance to learning is built into any attempted innovation. (See Coffield and Edward, 2009, for a full explanation of this point.) Taking my cue from Sennett (2008), all tutors and all students are considered to have the ability to do good work and to improve the quality of their work for its own sake. Good tutors want to be more than just employees, they want to take pride in their teaching and in the achievements of their students.

Academics are in charge rather than the finance department, Ofsted or government. Teaching is a noble and essential profession so neither government nor government agencies tell teachers how to teach. Richard Hoggart, making the same point, talked of ‘the importance of self-government by the teachers themselves, rather than by a “faceless administration”’ (1982: 61).

In sum, the aim is for FE colleges to become centres of further education rather than centres of further examinations. A learning community would therefore be an exciting as well as an exciting place to work; it would not be a warm bath where one wallowed in soft interpretations of the slippery word ‘community’. And if the list of points above does not describe the college or school you work in, what could you and like-minded colleagues do to make it more like a learning community? My advice would be to act at all times as if you lived in a democracy. A tough question remains, however: can such learning communities thrive in the political atmosphere of hyper-accountability, which has been imposed by government and which is based on such deep mistrust of the teaching profession?

The characteristics of a learning community listed above could be applied to workplace learning, but it would be preferable to employ Unwin and Fuller’s new, powerful distinction between expansive and restrictive environments at work, which they used to place companies along a continuum. At one end, for example, expansive firms train all their workers; the needs of the firm and of the individual are aligned; learning spaces are widely available; and mentoring and coaching are dispersed throughout the organisation. At the other end, on-the-job and off-the-job learning are not integrated; employees’ experiences and expectations are ignored; and only the expertise of senior staff is recognised. Above all, Unwin and Fuller have shown the need to ‘understand the interaction between the organisational context, the workplace learning environment and the individuals engaged in learning’ (2003: 15).

In other words, an expansive policy for teaching and learning is very unlikely to work in a hierarchical institution where a gap has opened up ‘between senior staff, with a primary concern with balancing the budget, recruitment, public
The relevance: what’s all this got to do with education?

relations and impression management, and teaching staff, which a primary concern with curriculum coverage, classroom control, students’ needs and record keeping’ (Ball, 2008: 52).

Warwick Mansell, in a detailed investigation into what he called ‘the tyranny of testing’, concluded that ‘mechanistic, exam-driven teaching is the order of the day, particularly dominating pupils’ last five years in secondary schools’ (2007: 245). He then posed a challenging question to Ministers: ‘are improving exam results important in their own right, as ends in themselves, or only in so far as they indicate genuine improvements in the education service?’ (Mansell, 2007: 247). I recognise the significance of the question and would only want to change the ending to read ‘genuine improvements in the quality of students’ learning’. But are not Ministers likely to respond that the tests are not ends in themselves, but a means of demonstrating publicly that increased investment in education has produced tangible results that can be used to help win elections?

So perhaps the question to Ministers should be: are students in schools and colleges just to pass exams or to become better at learning? The two, of course, are not mutually exclusive. The burden of my argument, however, is that the nature of assessment needs to change from the over-emphasis on summative assessment to a strong focus on assessment for learning (AfL) which nurtures the professional competence of teachers as well as improving the achievement of students.

There should, I feel, also be some questions directed at schools and colleges and David Hargreaves has usefully provided three, to which I add a fourth. I would like heads and principals to reflect on the following: at the end of their time in your school or college at 16 or 18, do all your students:

- ‘view themselves as someone able to learn successfully?’
- understand learning and themselves as learners?
- leave with a positive attitude to continued learning?’ (Hargreaves, 2004: 82)

The fourth challenge to schools and colleges which I would make is: do all your leavers possess critical intelligence, that is, the ability to detect bullshit and the moral courage to expose it? (See Coffield, 2002 for more on this theme.) Ministers are understandably likely to ask a further question: can you provide us with hard evidence that these four challenges have been met so that we can convince the Treasury that investment in education pays dividends?

d. Individual responses to testing and assessment

Let me introduce you to Ruth, who scored maximum marks on the national Leaving Certificate (the passport to university) in the Irish Republic, in 2005. When she was invited to comment on how she had performed so successfully, she replied:

Learning the formula for each exam and practicing it endlessly. I got an A1 in English because I knew exactly what was required in each question. I learned off the sample answers provided by the examiners and I knew how much information was required and in what format in every section of the paper. That’s how you do well in these examinations ... There’s no point in knowing about stuff that is not going to come up in the exams. I was always frustrated by teachers who would say ‘You don’t need to know this for the exams but I’ll tell you anyway.’ I wanted my A1 – what’s the point of learning material that won’t come up in the exams?

Quoted by Stobart, 2008: 3
Is this the stance of an *educated* 18 year old? Or of a highly focused game player who is determined to beat the system and her competitors? Or is her attitude the logical outcome of the intensely competitive pressures governments now routinely apply to schools and colleges? Graham Stobart, the author of a provocative book on testing from which this story comes, urged us not to worry about Ruth because: ‘she went on to have an occasional column in the *Irish Times* which offered advice on exam preparation.’ (Stobart, 2008: 4) But I do worry about her and the thousands like her. How long, for instance, will it take them to recover from this mis-education? Some of them may never recover because they drop out of education at 16 and 18 and so may never experience the engagement of learning as opposed to joyless ‘cramming’ for exams.

Ruth’s highly instrumental approach to exams is, unfortunately, widespread. During the academic year 2008/09, I explored the notion of ‘learner voice’ by inviting 24 students in two FE colleges (one in the north of England and the other in London), to complete a learning diary for three weeks. In both colleges I held discussions with three groups of four students from three curriculum areas: A-levels, vocational courses and the Foundation Learning Tier (FLT). In one of these discussion groups, a student volunteered the information that she did not attend her weekly general tutorial ‘because there’s no qualification at the end of it’.

Her stance is all of a pattern with the responses of all the other 23 students:

The feature of the diaries that first caught my attention was the high frequency of references to exams/tests and assignments/coursework. This was one of the few occasions where the entries of the A-level and vocational students were markedly different from those of the FLT students. The latter certainly discussed deadlines for assignments, marking criteria and re-submissions, but their entries were not quite so saturated with endless references to testing such as: improving revision techniques; setting aside large periods of time for memorising facts; practising typical exam questions; studying past papers; improving exam techniques; practising under exam conditions; learning not to panic while taking ‘mock’ as well as ‘real’ exams; having to re-sit exams; finding out how to improve one’s grades; worrying about the results of ‘surprise’ tests; marking one’s own and colleagues’ test papers; predicting exam questions; finding out the minimum marks needed to pass; ignoring interesting material because it will not be in the exam; comparing one’s answers with the teacher’s marking scheme; attending revision classes; and learning the new language which has sprung up around testing which phrases such as ‘picking up tips from the tutor on grade boundary security’.

What I found most telling was that not one of these able and committed students made a connection between assessment and learning. Assessment was viewed as a necessary evil and the route to gaining qualifications, but it was not treated as constructive guidance about how to improve as a learner.

Coffield, 2009: 56

One of the unintended but harmful consequences of government policy is that we are now producing generations of expert passers of tests, who see assessment as something unpleasant that is done to them, and who have become adept at regurgitating ‘unwanted answers to unasked questions’ (Popper, 1976: 40). Too many have unfortunately joined the ‘learn it, forget it’ culture, depicted so well by Linda Fisher (2007). As a result of their school years from 5 to 16 being dominated by the preparation for, and the taking of, tests, too many GCSE students now move on to FE and sixth form colleges as highly dependent learners, who expect to be spoonfed. They want to be given ‘the answers’ rather than the responsibility for their own learning. Over 30 years
ago Michael Oakeshott was arguing ‘Human learning is not acquiring habits or being trained to perform tricks or functions: it is acquiring something that you can use because you understand it’ (2001: 8). Is not the present focus on exam technique getting dangerously close to training students to perform tricks? We need our students to view tests as an integral part of learning and to see that ‘they can be beneficiaries rather than victims of testing, because tests can help them improve their learning’ (Black et al, 2003: 56). We could challenge them to appreciate the crucial difference between being good at passing tests and developing a love and understanding of their subjects.
Semmelweis's radical insight was that childbed fever had a single cause, which helped to ‘create an entirely new theory of disease’ (Carter and Carter, 2005: ix). He was buried on 15 August 1865 and ‘not one family member, not one in-law, not one colleague from the University of Pest was in attendance’ (Carter and Carter, 1994: 78). In October 1964 his remains were transferred to the building where he was born which now houses a museum dedicated to his memory. An institute specialising in the history of medicine has also been named after him in Budapest and his portrait appears on an Austrian 50 euro gold coin minted in his honour in 2008.

It’s small beer. We could pay him a more lasting tribute if we professionals in the social services, as part of our annual compulsory training, were to confront the basic Semmelweis question: ‘What changes do I need to make to those aspects of my professional thinking and practice which I suspect are doing more harm than good?’

I shall finish this paper by trying to answer this disturbing question myself; and the question is useful because it unsettles. When I began teaching classics in a comprehensive school in Glasgow and then general studies (ie what is now known as basic skills) in an approved school in Scotland, I routinely divided my classes into three rough groups: the above average, the average and the below average. I was not trained to do this during my teacher training course at Jordanhill College of Education; it just seemed to me, as a young teacher, to be a sensible way of coping with the wide and obvious range of ability with which I was confronted; and preparing for three groups made my life as a teacher manageable. As best as I can remember, I created the three categories as a result of my earliest interactions with the classes and the first round of written work.

When I moved into higher education this approach was reinforced by the practice of awarding first, second and third class degrees which, very quickly, turned into an unthinking acceptance of the concept of first, second and third class minds which is, in turn, a clear reflection of the Platonic fable of children of gold, silver and bronze. We have in this country a ‘persistent tri-partite mentality that constantly threatens to revert to seeing young people as “academic”, “technical/vocational” and to be brutal, all the rest’ (Pring et al, 2009: 6).

If only at the time I had known about the work of Rudduck and McIntyre who argued that ‘teachers in English secondary schools tend very quickly and confidently to attribute high or low levels of “ability” to pupils’ (2007: 89 as in original).

Similarly Gillborn and Youdell’s research in two London secondary schools described how the rationing of educational opportunity ‘is acting systematically to neglect certain pupils while directing additional resources to those deemed most likely to benefit’ (2000: 134). Under intense pressure from government to increase the proportion of pupils achieving five good GCSEs, secondary teachers are again dividing their classes into three categories:
- the non-urgent, safe cases who will pass without additional help
- the under-achievers, who with help and extra resources, could convert likely grade Ds into grade Cs
- the hopeless cases, who can be ignored because they will achieve at most D, E and F grades.

If teachers expect to find three levels of ability, the danger is that three levels of ability are exactly what they will find. Hart et al have usefully added the next stage in the argument: ‘we create different types of learners by believing that there are different types, and by teaching them accordingly’ (2004: 30, original emphasis). If we construct our pedagogy around the flawed and inaccurate notion of fixed ability, then the strategies adopted by schools and our classroom practices as teachers (with the aim of maximising test results) ‘are themselves implicated in creating and maintaining persistent patterns of differential achievement’ (Hart et al, 2004: 21). Let me summarise my argument in a question. Is it possible that the limited achievements of a significant minority of the population are in part caused by deep, unexamined beliefs by some teachers that there are some people who are just ‘thick’ or are from such poor families or housing estates that teachers can do little, if anything, to help them?

The alternative is to embrace the expansive notion that everyone’s capacity for learning can be enhanced: you and I can become more intelligent, we can learn to be more intelligent (see Coffield, 2009 for more on this theme). Richard Sennett summed up this alternative approach to ability: ‘No one could deny that people are born or become unequal. But inequality is not the most important fact about human beings.’ (2008: 268) What is more important, he went on to argue, is that we share the talent to improve and our ability to work well in teams helps us to become good citizens.

The campaign by the National Union of Teachers and by the National Association of Head Teachers to get rid of tests at Key Stage 2 will be worth watching. The two unions have promised to ballot their members on a proposed boycott of the Sats in 2010 unless the government replaces them with moderated teacher assessments. Their ‘campaign’ is attracting the vocal support of authors such as Philip Pullman and Michael Rosen (see Marley, 2009). If primary teachers, not noted for their militancy, were to vote for such a boycott, would tutors in the post-compulsory sector at last begin to speak out? What I call the Silent Sector may yet find its voice.

Semmelweis was brave enough to face what must have been the shocking realisation that he was himself responsible for the death of many of his own patients. He had the moral courage to change his own thinking and practice and struggled heroically to get his professional colleagues to follow suit. The concept of iatrogenic illness is widely accepted within medicine. No doubt the teaching profession can, like me, easily accept the notion of government-induced (politicogenic?) problems. But are we prepared to embrace the notion that some of our implicit theories and unexamined practices may also be counter-productive (didaskalogenic? that is, teacher generated) and even harmful? Can we as a profession face up to the central question that Semmelweis’s tragedy poses: what changes do I need to make to my thinking and my practices to prevent them doing more harm than good? Will you face up to it?
Notes

1. Ignaz Philipp Semmelweis’s name translates into English as Ignatius Philip White Bread Roll. An inauspicious start.

2. Looking back with all the benefit of hindsight, we can see that an effect (that is, the bad smells emanating from the wounds) was being treated as a cause. Not a mistake we would ever make.

3. His method of holding together the 11 nationalities that made up the Austrian Empire was to keep them in finely balanced and well-modulated discontent, a ploy which vice-chancellors of universities and principals of FE colleges seem to have copied in their dealings with the rival claims of departments squabbling over resources.

4. The further education colleges in England still wait to be accorded similar status.


6. An interesting parallel (with important similarities and differences) to Semmelweis’s story is to be found in

7. I’m grateful to Stephen Gorrard of Birmingham University for bringing this point to my attention.

8. I happened to be present one evening when a university staff club, newly refurbished in steel and oak, was composed of three groups: ‘gentil, pas gentil et pas du tout gentil’.

9. I have mentioned only three examples in the text, but I am faced by an embarras de richesses in this regard in all phases of education. I could, for example, have chosen: the government presumption that 11–16 schools should be allowed to open small sixth forms irrespective of the pattern of local provision; the routine exclusion of front-line teachers from the development, evaluation and re-design of educational initiatives; the 459 documents issued by government to all primary schools on the literacy strategy alone between 1996 and 2004; the unwarranted imposition from the centre of one method of reading (synthetic phonics), a ministerial decision for which there is no adequate research evidence (Coffield et al, 2007); the notion that ‘good practice’ can be easily identified and transferred (see Coffield and Edward, 2009); the new Common Inspection Framework for FE and Skills 2009, which consists of a judgement on overall effectiveness (5 questions), capacity to improve (16 questions), outcomes for learners (5 sub-sections and 49 questions), quality of provision (4 sub-sections and 61 questions) and leadership and management (7 sub-sections and 105 questions), making 236 questions in total so that staff time will be taken up in responding to the needs of inspectors (and ministers), rather than of students (Ofsted, 2009); and the withdrawal of funds from learners studying in higher education for an equivalent or lower qualification which will almost certainly result in fewer adult learners in higher education. I could go on adding more instances, but I think the point has been made, and made more eloquently by Robin Alexander, when he wrote: ‘... a national education system belongs not to ministers and officials, but to all of us’ (2008).

10. Harry Frankfurt, recognising that we have no theory of bullshit, has usefully delineated its rhetorical uses and misuses and considers that “… the essence of bullshit is not that it is false but that it is phony” (1988: 128, original emphasis). From the moment students start school we offer them models of obedience, but rarely if ever, models of disobedience. So we should not be surprised if students become biddable, too trusting in what they read or are told, and reluctant to criticise constructively. The ability to criticise constructively is not innate, it has to be learned and teachers could be influential role models.

11. In the French film La classe, a new teacher is keen to find out something about the students he is about to inherit and so asks the class’s previous teacher for advice. He’s told they can best be understood as composed of three groups: ‘gentil, pas gentil et pas du tout gentil’.
12. The story is told of an educational psychologist who got a job in an education department at Oxbridge and, much against his better judgement, found himself at a welcoming party for new staff at the college he had been pressurised to join. He was sipping his minute glass of sherry when he was accosted by one of the college’s fellows: ‘I’m sorry I can’t stop to talk to you. You see, I’ve seen from your badge that you’re an educational sociologist. Well, I’ve a first class mind so I can’t afford to waste any time.’ Welcome to Oxbridge.

13. Plato’s Republic is run by three groups: guardians, auxiliaries (who enforce the decisions of the guardians) and craftsmen. In what Plato called ‘a convenient fiction’ (convenient for whom?) all three orders in society accept the allegory that gold was implanted in those fit to rule, silver in the auxiliaries (what Richard Crossman called ‘the administrators’) and iron and brass in the farmers and craftsmen. Plato foresaw a difficulty in getting people to believe this myth but thought they might do so in time if it were to be repeated often enough. Repetition (by those who have conveniently forgotten that it is ‘a convenient myth’) seems to have worked unfortunately (see Cornford, 1961). There are always people like Crossman, to whom it has never occurred for a moment that he was anything other than a leading member of the guardians. No auxiliary, he.
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Yes, but what has Semmelweis to do with my professional development as a tutor?

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What changes do I need to make to those aspects of my professional thinking and practice which I suspect are doing more harm than good?

This was the central question posed by Ignaz Semmelweis, a young Hungarian doctor who, as a result of painstaking research, reduced mortality rates in childbed fever to less than 1% by challenging the practices of his contemporaries in 19th century Vienna. Now, more than 150 years later, Professor Frank Coffield, Emeritus Professor of Education at the Institute of Education, examines how we can use this remarkable story to challenge and improve some current professional practices in teaching and learning.
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