Evidence-led Practice and the Professional Teacher

Jed Stone

The eighteenth-century thinker Hume famously asserted that 'a wise man…proportions his belief to the evidence' (Hume, 1748, p. 175). This sentiment still has purchase: a common refrain today is for professionals to proportion their *practice* to the evidence. The normative contention that professionals ought to base their practice on empirical evidence is, at first glance, compelling. A fortiori, the claim that professionals ought to *systematically* base their practice on the *best available* research evidence (Trinder, 2000) is intuitively convincing. Few if any scholars would be likely to deny the softer claim that professionals ought to at least make sure that their practice is *informed* by evidence. It is easy to speculate on the reasons for the appeal of what I will call 'evidence-led practice'. One reason might be that professional knowledge has historically been bound to universities, the principal producers of research evidence (Crook, 2008). Another reason could be that evidence use connotes rationality, respect for which still holds, despite postmodern critiques of it. Whatever the reasons, engaging in evidence-led practice is generally thought to be a foundation of professionalism.

The call for evidence-led practice in education has been voiced past and present. Although it was voiced in the 1970s (Bubb, 2013), it accomplished resonance in the 1990s. In a seminal article, Hargreaves (1996, p. 1) argued that the creation of an evidence-led teaching profession could 'advance the professional quality and standing of teachers'. New Labour maintained that teachers ought to 'base decisions on evidence of what works in schools' (DfEE, 1998, p. 14). It introduced purportedly evidence-led national strategies (Whitty, 2008) and increased funding to higher education institutions, thereby funding research (Civitas, 2009). More recently, Goldacre (2013, p. 7) claimed that evidence use could improve educational outcomes and 'increase professional independence'. Calls have since broadened in scope; for example, it is contended that both teacher education and

educational policy ought to be evidence led (BERA & RSA, 2014; Brown, 2016). Calls have also consolidated; for instance, the National Foundation for Educational Research exists to promote evidence-based education (NFER, 2014a, 2014b). Hence, many educationists agree that evidence-led practice is a foundation of *teacher* professionalism.

My interest in this area emanates from my experience as Leading Practitioner in a London secondary school. The antecedent of the Leading Practitioner designation, the Advanced Skills Teacher designation, was introduced by New Labour in 1998 (Leaton Gray & Whitty, 2010). Amongst other things, Advanced Skills Teachers would conduct their own research, lead their own professional development, and collaborate with higher education institutions (Smith & Averis, 1998; Sutton et al., 2000). Advanced Skills Teachers would constitute the bridge between universities and schools, between theory and practice, and, presumably, would therefore champion evidence-led practice, although such ideas do not appear in the Advanced Skills Teacher standards (TDA, 2007a). There is little evidence pertaining to the extent to which, if any, these aspirations were realised. The implication is that teachers with elite designations ought to use academic theory and research evidence in their practice; ceteris paribus, the higher the level of evidence use, the higher the level of professionalism.

As Leading Practitioner, I led a team to create, develop, and help implement my school's teaching and learning policy. This involved engagement with both primary data and theoretical literature. The grounded theory that was constructed suggests that teachers at the school are not engaged in evidence-led practice. As one participant expressed it,

> We already do far too many things simply because 'it's always been done' or 'other schools do it' or 'parents expect it'. It'd be good if we based what we do on evidence rather than tradition.

It struck me that evidence itself could not determine how it ought to be used. This was salient when tensions emerged between internal and external evidence and between evidence and democratic concerns or school realpolitik. For example, some of our internal qualitative evidence conflicted with external quantitative evidence from large-scale studies.

Which evidence ought to have taken priority? Moreover, our data indicated that learners who fail to submit homework need assistance, not punishment; however, this was disagreeable to most teachers, many of whom set routine detentions in such cases. I felt in need of a theoretical framework to help me resolve such tensions.

I also felt that there was insufficient time to engage in evidence-led practice with much rigour. The theoretical literature on homework was vast, and therefore I concentrated on a small number of recent publications by respected organisations such as the Sutton Trust which distilled useable insights and recommendations. Collecting and using internal evidence was also time-consuming, not only for me, but for all research participants. The parent focus group, for instance, took time to plan, prepare, facilitate, transcribe, and analyse. The problem that teachers have insufficient time has been noted by scholars who write of the 'tyranny' of time (Hargreaves & Shirley, 2009, p. 2508). I had little doubt that evidence-led practice was valuable. Was it valuable enough to warrant the time it required?

In this paper, I share some reflections on evidence-led practice. There are four main sections. The first offers a definition of the term. In the next two sections, I consider whether evidence-led practice is possible and desirable. In the third section, I argue that there is a need for a theoretical framework to assist teachers in judicious evidence use, and I suggest that such a framework could capitalise on Habermas's rational consensus theory. To conclude, I set out some thoughts about evidence-led practice in relation to professionalism, my professional role, and my continuing research.

1. What is evidence-led practice?

To define the term ‘evidence-led practice’ in the context of education, I will consider first the concept of ‘evidence’ and then the notion of ‘professional practice’. Next, I set out a priori the three relationships that can exist between them. The section ends by clarifying what evidence-led practice is not.

The question of the nature of evidence is a philosophical one. According to proponents of evidence-based medicine, evidence is the outcome of aggregated individual information subjected to appropriate statistical analysis (Clarke, 2013). In education, this definition is too narrow and precludes other legitimate forms of evidence. What constitutes evidence varies according to context and discourse (Pring, 2004). Evidence can also vary in strength. Proponents of evidence-led practice naturally favour the strongest forms of evidence. Weak forms of evidence might include personal experience and testimony. Qualitative evidence is usually deemed inferior to quantitative research (Hammersley, 2001). Strong forms of evidence might include nomothetic research, especially Randomised Control Trials (RCTs) (Thomas, 2004). Others might add that stringent systematic research syntheses are the strongest form of evidence (e.g. Andrews, 2004; Gough, 2004). Any kind of evidence yields probabilistic conclusions; conclusive evidence is more precisely called ‘proof’. Evidence can therefore be defined as data or information that supports, but does not demonstrate, propositional truth.

The term ‘professional practice’ refers to the behaviour and conduct of professionals. Professional practice is allied to professional autonomy, which has been conceptualised in education as ‘teacher power’ (Taylor Webb, 2002); Teachers are powerful if they are free to exercise judgement and discretion. To erode teacher autonomy is therefore to deprofessionalise teachers (Frostenson, 2015). Nonetheless, professional practice is typically circumscribed by professional and ethical codes (Lunt, 2008). Professional codes vary significantly in their levels of prescription and restriction. The code of The College of Teaching (2017) articulates fourteen general principles and explicitly encourages professional judgement, whereas the code devised under the aegis of New Labour (TDA,

2007b) contains forty-one specific standards. Professional codes, including the codes for elite teachers (TDA, 2007a), have not expressly prescribed evidence-led practice. The College of Teaching code underscores merely that teachers ought to develop their professional knowledge. Thus, professional practice refers to the behaviour and conduct of autonomous professionals circumscribed by relevant professional codes.

The concept of 'evidence' can now be related to the concept of 'practice'. A priori, there are three discernible forms of evidence-led practice. The most extreme form, *systematic evidence-based practice*, posits that practice ought to be systematically based on the most up-to-date and highest quality research evidence. This is the form defended by Goldacre, co-author of a Cabinet Office paper on RCTs (Haynes et al., 2012), who argues that such evidence needs to be used by teachers 'as a matter of routine' (Goldacre, 2013, p. 7). A more moderate form is *evidence-based practice* which posits that practice ought to be based on evidence. This form does not demand systematicity in the application of evidence, and it does not restrict the evidence base to RCTs. The moderate form is *evidence-informed practice*: practitioners are cognisant of relevant evidence and make practical decisions in the light of that evidence. The evidence does not determine the decision and is not necessarily lent primacy; instead, teachers exercise professional judgement or teacher power. This is the form eventually defended by Hargreaves (Elliot, 2004).

It is useful to clarify what evidence-led practice is *not*. Practice that is neither based on nor informed by evidence has been characterised somewhat pejoratively; for example, Hargreaves (1996, pp. 7-8), citing Cox, describes such practice as ideological, dogmatic, traditional, or prejudiced, which is somewhat of a caricature (Ball, 2006, p. 22). Such practice is not evidence-led to the extent that it does not rest on strong evidence. Evidence-led practice does not entail that practitioners produce what Eraut (2004) calls 'practice-based evidence', though teachers can, and do, produce such evidence for bureaucratic, educational, or academic purposes. Hargreaves (1996) argues that teachers ought to be involved in evidence production, partially because he thinks this is likely to render such

evidence more relevant to practice. Some authors, notably Taber (2013), overtly conflate classroom-based practitioner research with evidence-based practice. But *who* produces the evidence is insignificant; what is significant is that there is an evidence base that is *used*, or consumed, practitioners.

2. Is evidence-led practice possible in education?

Proponents of evidence-led practice assume that evidence-led practice is possible in education. By 'possible', I mean 'logically possible' as well as 'feasible' or 'practicable'. This assumption can, and to an extent has, been questioned. I will argue that evidence-led practice is not necessarily possible and that there is an onus on proponents to adduce either arguments or evidence to justify the assumption. I will do this by laying out some reasons why the assumption is questionable.

Let me start with some simple issues surrounding feasibility for both schools and individual teachers. The practice can be financially expensive. Suppose that research indicates that class sizes of fifteen or less allow for more effective pedagogical approaches that improve outcomes, as the Sutton Trust (EEF, 2011) concluded. Few state schools are likely to be able to afford this. Similarly, other factors such as recruitment may come into play. Suppose that research shows that dialogical philosophy lessons taught by a driven philosophy professor are most effective, as is the case with the early research on Philosophy for Children pedagogy (Lipman et al., 1980). Such teachers are in short supply. Clearly, schools and teachers cannot always act on the evidence. Other factors need to be considered.

There are deeper problems concerning the possibility of evidence-led practice. Teaching is not a technical exercise that can be reduced to discrete practices or interventions explicable in propositions amenable to evidencing. Polanyi (2005) regards professional knowledge as 'tacit', that is, an ability knowledge (see also Collins, 2010). Other

writers note how evidence-led practice presupposes an incorrect causal model of professional action: teaching ought not to be regarded as an intervention because it is both non-causal and normative (Biesta, 2007). Still other theorists appeal to the Aristotelian distinction between *techne* and *praxis* (e.g. Kreber, 2017) to argue in effect that the good teacher is *predisposed* to use evidence, and that teacher judgement (*phronesis*) is vital. Analysis by Hattie (2009, p. 2) substantiates such claims. He concludes that successful teaching is more than a matter of how teachers structure, organise, and deliver learning; it is 'what happens next' that is 'the epitome of success'. Champions of evidence-led practice have a defence here, in the form of evidence-*informed* practice, because such practice places teacher judgement and her or his professional knowledge centre stage.

A problem concerning all forms of evidence-led practice is interpretative in nature. In a *Newsnight* interview (BBC, 2015), Goldacre decries how politicians often misrepresent data for their own purposes and argues that the independent and impartial interpretation of data could further the ends of democracy. It is true that data and evidence can be interpreted unfairly. It is also true that there can be different interpretations of data and evidence that are fair. As Nietzsche (2003, p. 139) wrote in his notebooks, 'facts are just what there aren't, there are only interpretations'. Therefore, Goldacre is probably wrong to assume that there is only one possible fair interpretation of data and evidence, as he seems to do. This suggests that there is no such thing as evidence-led *practice*, only evidence-led *practices*, which, even in similar contexts, could be quite different. Apologists could respond on positivistic lines by formulating rules to govern how evidence is interpreted. But this does not negate the fact that those rules themselves need interpreting. The radical response would be to define a self-contained logical system of rules, but in this case, it is difficult to see how evidence could provide any useful information about the real educational world. Therefore, a weakness of evidence-led practice is that it is devoid of a hermeneutic: it is not possible without an interpretative framework.

A further problem with evidence-led practice, of which its proponents are conscious, is the lack of a solid base of the strongest forms of evidence. Hargreaves (1996), for one, argues for a substantive change in the research agenda so that it includes practitioners, partially to further the ends of democracy. The argument is redolent of both Dewey and Maxwell. Dewey contended that philosophy – academia – must focus, not on esoteric problems, but on the problems of humankind (Dewey, 1946). More thoroughgoingly, Maxwell (2007) argues that academia needs a fundamental reorientation so that it is focused on real-world problems. To an extent, it can be argued that this aim is being realised; some advocates of evidence-led practice such as Kime (EEF, 2016) are at the forefront of seeking to make research evidence relevant and accessible to practitioners, and there are numerous publications intended to help teachers draw from research evidence (e.g. EEF, 2011). Nonetheless, if there is no substantive evidence base, then there can be no evidence-led practice.

Incidentally, the proposition that involving practitioners in the research process furthers democratic ends is contestable. On the one hand, involvement of practitioners in decisions that affect them, such as the content of the research agenda, squares well with the concept of participative democracy (Dewey, 2007). On the other hand, evidence-led practice can be seen as a threat to teacher autonomy and freedom. Teachers become accountable not only for outcomes but also for processes (Hammersley, 2001), furthering managerial rather than democratic ends. This is true even with evidence-*informed* practice: teachers are accountable for being informed by evidence – an ongoing process, given that new research evidence is being produced with much rapidity. An evidence-led practice could hence be in a state of constant, probably debilitating flux. Moreover, teachers are accountable for their decisions relating to the use or dismissal of evidence in their practice. It is therefore unclear whether evidence-led practice can advance democracy in schools.

Returning to the central point, even if an evidence base does exist, it does not follow that teachers can access it. Academic knowledge is usually guarded by publishers that

demand payment for access. Academic articles and books can be expensive. Schools and teachers may not have the funds available; even if they have, using them might deflect them from other worthwhile resources and projects.

It may also be that teachers do not have the requisite skills to understand research evidence and distinguish useful evidence from 'ornamental' evidence (Brown, 2016). Every modern educational product, so it seems, *purports* to be evidence-based. Teachers can come from a range of academic backgrounds, and it is possible that relatively few have received training in research evaluation. Simplified summaries of research that are accessible to anyone with a good level of education carry the danger over-simplification: teachers will not be positioned to appreciate nuance or critically engage.

Even teachers who are academically trained in research evaluation face barriers. Some research conclusions are highly abstract. For instance, the conclusion that effective feedback is conducive to quality learning is no doubt true, but, as Wiliam (2006) notes, the challenge is to make it work in the classroom. Similarly, Hattie (2015) affirms that collective teacher efficacy promotes learner outcomes. These findings require a long-term, strategic approach. Yet, sociologists suggest that teachers may be inclined to presentism, the prioritisation of short-term concerns over long-term ones, which is detrimental to outcomes overall (Hargreaves & Shirley, 2009). Evidence-led practice itself carries the danger of fostering presentism because interventions are intrinsically tactical rather than strategic. Teachers and schools need the resources and skills to engage strategically with the evidence base. Strategic engagement is time-consuming and might divert attention away from other significant matters. Strategy itself requires a guiding vision or philosophical foundation. Evidence-led practice may be necessary, but it is not sufficient.

Finally, it is plausible to think that teachers are indirectly influenced by research evidence (NFER, 2014b). They may have encountered media reports on empirical studies, and unconsciously incorporated outcomes into their practice. The teaching and learning policy that I wrote contained evidence-based elements such as the requirement for learners

to be given opportunities to respond to teacher marking (see Elliott et al., 2016). If teachers follow this policy, then they are engaging in evidence-led practice. Such teachers would be engaged in evidence-led practice, albeit to different degrees. Research is needed to measure the extent to which, if any, teachers are indirectly influenced by research evidence. If teachers are influenced by it, then this renders calls for evidence-led practice largely redundant; the calls reduce to calls for systematic evidence-based practice.

Therefore, evidence-led practice may not be possible. Factors such as cost and recruitment may prevent its application. Moreover, it presupposes an incorrect causal model of teaching, and it assumes, arguably wrongly, that the objective interpretation of data, facts, and evidence is possible, with positivistic undercurrents. Evidence-led practice is only possible if there is an evidence base from which practitioners can draw. If there is such a base, teachers may not command the necessary resources, skills, strategy, vision, and time to engage with it. Evidence-led practice may be undemocratic, although this proposition requires further investigation. Finally, it is quite plausible to think that teachers are already incidentally engaged in evidence-led practice, somewhat abating the clamour for it.

3. If evidence-led practice is possible, is it desirable?

For the sake of argument, suppose that evidence-led practice is possible. On the face of it, such practice is desirable. For it is based on knowledge that is, in the eyes of some, qualitatively superior to other forms of knowledge (e.g. Young et al., 2014) and, given epistemological reliabilism (e.g. Goldman, 2012), it is the product of arguably the best-known epistemic process. It does not *follow* from its possibility that it is desirable. At the very least, it is reasonable to hold that not all empirical questions relating to practice require research to answer them (Hammersley, 2001). Key proponents of evidence-led practice, notably Hargreaves (1996) and Goldacre (2013), tend to assume, rather than argue, that it is. When arguments are adduced, they tend to be analogical in nature: they typically rely on the

assumption that because evidence-led processes have been successful in one field – especially medicine – that, by analogy, they will inevitably be successful in the field of school education. Such analogies might not hold, given that education is distinct from fields such as medicine (Hammersley, 2001). In this section, I will argue that evidence-led practice is not necessarily desirable by setting forth its potential limitations. A key premise is that the efficacy of evidence-led practice itself needs corroboration by empirical evidence.

First, a logical clarification. The proposition that 'evidence-led practice is best practice' is not a tautological truth. The use of Moore's (1903) so-called 'open-question argument makes this clear: because it is at least conceivable that evidence-led practice is not best practice, they cannot be coterminous. Indeed, on its own terms, current evidence might indicate that practice *x* is the best practice, though this could be discredited by future evidence which indicates that practice *y* is the most effective.

Even if it is accepted that evidence-led practice is the best known practice at the time, it does not follow that practitioners ought to engage in it. Another of Moore's (1903) tools, what he calls the 'naturalistic fallacy', can be drawn on to show this. Suppose that there is overwhelming evidence that the threat of death on failure, as depicted in *The Thinning*, is optimally effective in maximising learner attainment. It does not follow that teachers ought to engage in such practice. Although this practice might work, it is unethical. Similar hypothetical examples could be formulated to show that that effective practice might be undemocratic, socially unjust, or contrary to human rights. Evidence might provide one reason to engage in a practice, but not necessarily a decisive one (Kolodny, 2013).

Some proponents of evidence-led practice suggest that it is value-neutral (Trinder, 2000), that is, that it can accommodate any value, aim, or end. Once an end is established, then evidence can supply information on what is likely to be the best method of achieving that end. Evidence in itself does not determine ends; ends must be derived from elsewhere. In Hume's (1975) view, it is 'the passions' – human desires – that supply ends. Even if it is true that evidence-led practice is value-neutral, the question of who or what determines ends

remains. Wittgenstein (2013, p. 88) expresses this idea with beauty: ‘even when all possible scientific questions have been answered, the problems of life remain completely untouched.’ If evidence suggests that practice *q* raises attainment but that practice *not-q* promotes well-being, then which option ought to be selected? Therefore, the question of what evidence ought to be evidence *of* is a key one.

It can also be argued that evidence-led practice is not value-neutral. Kant (1785) distinguished between two main forms of practical rationality: instrumental means-ends rationality and pure practical rationality: conformity to a foundational a priori principle. Similarly, Habermas (1984) identified various forms of rationality such as communicative rationality. If it is true that there are different forms of rationality, then clearly evidence-led practice values instrumental rationality above other forms and therefore it is not value-neutral. This corollary is that there is an onus on proponents of evidence-led practice to show that instrumental rationality is intrinsically superior to other forms of rationality. It may well be, for instance, that a professional approach based on epistemological coherentism (e.g. Lehrer, 1974, 1990; Bonjour, 1985), coupled with the virtue of integrity – that one’s practice must cohere with one’s coherent belief-system – is more effective at producing desired educational outcomes. Proponents of evidence-led practice cannot simply opine that their approach is the most effective; robust evidence is needed.

Let us suppose for argument’s sake, that instrumental rationality is superior. This is insufficient to demonstrate the desirability of evidence-led practice. Other non-rational approaches may be more effective. Evidence is backward-looking. There cannot be evidence of unrealised possibilities. Hence, it is possible that a creative pedagogy, in which teachers and schools experiment with many new pedagogical approaches and retain what works, is more effective that evidence-led practice. This is what enduringly successful businesses do (Collins & Porras, 2005). Again, the onus is on proponents of evidence-led practice to adduce robust evidence that their approach is better than this and other non-rational pedagogical approaches. Instead, as mentioned above, what the proponents tend to

do is to straw man alternative pedagogies, caricaturing them as prejudiced, ideological, traditional, or dogmatic.

Even if it is accepted that evidence-led practice is desirable, difficult problems remain. Firstly, advocates would need to adduce evidence to show which version of evidence-led practice is the most effective. If evidence suggests that systematic evidence-based practice is best, then further evidence is needed to show which system is the most effective. If evidence-informed practice is best, according to the evidence, then it appears that evidence-led practice is self-defeating: it is possible that a practitioner, fully conversant with the evidence base, never judges it appropriate to act on that evidence. That is, evidence would suggest that teacher autonomy, rather than evidence-led practice, is crucial.

The irony is that the two notable champions of evidence-led practice, namely Hargreaves and Goldacre, offer hardly a shred of evidence from education to substantiate their contentions. This is at best ironic and at worst hypocritical. I therefore conclude that, without further argument, evidence-led practice is not necessarily desirable and that, even if it were, proponents must surmount further obstacles.

4. How can teachers and school leaders engage in evidence-led practice?

I have cast some doubt on both the possibility and the desirability of evidence-led practice. It is perhaps worth pausing briefly to clarify and articulate my own position. I think that evidence-led practice can be possible, provided certain conditions are met, for example, that an appropriate evidence base exists. I also think that evidence-led practice can be desirable, though only if it is situated in a broader and richer theoretical framework encompassing both the interpretative and the ethical. The question of what evidence is evidence *of* is crucial. Most proponents of evidence-led practice valorise academic attainment and achievement. Writers such as Wiliam (2011) argue at some length that achievement ought to be a fundamental end of education because it increases the life-chances of learners.

Nonetheless, it is reasonable to posit that there are other, equally important aims of education. Seldon (e.g. BBC, 2016) is reported in the media to have exhorted the Government to measure not only learners' attainment and achievement, but also their well-being and mental health. Indeed, few teachers, parents, learners, or politicians are likely to defend the view that academic achievement is the sole end of schooling. This being the case, it is important that teachers and schools negotiate and agree educational aims. Only then can decisions be made with these, and concomitant empirical evidence pertaining to them, in mind.

There are two main candidates for the required theoretical framework. The first is virtue-based practice. There is a vast literature on virtue ethics and a growing literature on epistemic virtue. Some educational researchers adopt virtue-based methodologies (e.g. Fancourt, 2008). Arguments for a *phronesis*, professional judgement, centred approach to education have been advanced by scholars such as Green (2009). The great advantage of a virtue-based approach to evidence use is that, as mentioned above, it can include the disposition to ground decisions in the best available evidence, whilst providing a system of values. The problem with a virtue-based approach is that it is insufficiently democractic: it focuses on the character and traits of the individual teacher. This is a significant problem because teaching is social and in a democratic context the views of all stakeholders ought to be taken into account.

It is for this reason that I favour the rational consensus theory of Habermas (e.g. 1984, 1990). In what he calls an 'ideal speech situation', all subjects can participate. This would include teachers, school leaders, learners, and parents. This is the *democratic* dimension. It would also include the voice of academic research. This is the *evidence* dimension. It also contains a theory of communication. This is the *interpretative* dimension. For Habermas, it is the most cogent argument that ought to be acted on. This may sometimes be the voice of academic research – but not necessarily. Scope for judgement comes when decision-makers – teachers and school leaders – assess the cogency of the

arguments expressed. In practical terms, such an ideal speech situation may never arise; however, it adds a clear normative dimension which evidence-led practice theory per se is missing. It also underlines the need for practitioners to strengthen their own professional judgement through conversance with academic research processes and outcomes.

5. Some final thoughts

In this final section, I want to set out some reflections. I first attend to the concept of professionalism and distil the argument that the ethical is, and ought to be, at the heart of the professional. I then consider how my investigation into evidence-led practice has altered my own sense of professionalism. I conclude with some further remarks about my own future work.

The contention of proponents such as Hargreaves and Goldacre that engagement in evidence-led practice by teachers would heighten their professionalism is misguided. Evidence-led practice is not value-neutral: it presupposes instrumental rationality and therefore supresses other forms of rationality such as acting in accordance with propositional principles. Advocates have little to say about what the aims, principles, and values of education ought to be, and they appear to accept dogmatically the pervasive view that educational achievement is the only metric of significance. As we have seen, at least one writer adduces arguments in explicit defence of this proposition, but such arguments, bereft of a hermeneutical and ethical framework, are empty. Lyotard's (1984) concept of performativity illuminates this point. The central value of instrumental rationality is efficient production; the value of both means and ends is peripheral. On this analysis, teachers in the postmodern world are pressed to teach in a way that produces outcomes effectively and efficiently, regardless of whether those outcomes are educationally meaningful. Thus, learners may be asked to memorise and recite a prefabricated essay if that will secure a good examination result, regardless of whether they understand the content, and regardless

of what they become afterwards. An alternative rationality is required, so that educational values infuse both means and ends (Dewey, 1964). Equipped with this type of rationality, a teacher who values, say, questioning and thinking will strive to make sure that their teaching methods promote these things and that outcomes affirm and exemplify them. Nowhere is the privileging of performativity by proponents of evidence-led practice more evident than in their preference for quantitative research over qualitative research: the former tends to be concerned with effects, whereas the latter tends to be concerned with meaning and values. The true professional is the professional who is driven by and lives out moral values and purposes. Philosophy therefore has primacy, for without it, science is blind.

This conclusion has import for my own sense of professionalism. I retain my initial aversion to teachers who act in unabashed ignorance of research evidence. But I have developed a new aversion: to teachers, and indeed researchers, who uncritically accept and nourish a performative educational system. As Leading Practitioner, there are two formal responsibilities that I bear: one, to model excellent practice; the other, to develop the teaching skills of others (DfE, 2013). In this role, there is scope to promote evidence-led practice. I could, for instance, write and disseminate regular electronic bulletins to explain the latest research findings. There is, however, little formal scope for even the Lead Practitioner to promote the ethical, despite this constituting a central concern. Therefore, in order to develop professionalism, disruption is needed, for which it is necessary to step outside of the context of the performative school system.

Word count: 5,447, exclusive of reference list but inclusive of redacted material.

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