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**Expressions of Excellence
and the Assessment of Applied and Practice-based Research**

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Abstract

Critics of education research in the recent years have pointed the finger at what they saw as its low quality, impact, and ‘value for money’. In the context of the Research Assessment Exercise, particular concerns have been raised about applied and practice-based educational research and how best to assess its quality. This paper refines the ideas originally developed as part of a project commissioned by the ESRC in 2004 and completed in 2005. It argues that quality in applied and practice-based research cannot be reduced to narrow definitions of “scientificity”, “impact”, or economic efficiency. The paper proposes an account of quality in applied and practice-based educational research which encompasses methodological and theoretical solidity, use and impact, but also dialogue, deliberation, participation, ethics and personal growth. Drawing on Aristotelian distinctions between forms of rational activity and their expressions of excellence or virtue, our account emphasises the synergy between three domains of excellence in applied and practice-based research: theoretical (*episteme*); technical (*techne*); and practical (*phronesis*). The thrust of the paper is not to set any standards of good research practice, but simply to make progress towards recapturing a cultural and philosophical dimension of research assessment that had been lost in recent official discourses.

Keywords: research assessment; quality; applied and practice-based research; philosophy of research.

Expressions of excellence and the assessment of applied and practice-based research

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1. Introduction

In 2004 we were commissioned by the ESRC to undertake a short project exploring issues of quality in applied and practice-based research in education. The ESRC had expressed an interest in such a project presumably because of ongoing public concerns about quality in educational research, much of which claimed to be applied in nature. Though our focus was explicitly on educational research, there was recognition by the ESRC that many of the issues we were likely to consider would have a broader relevance to other social science disciplines such as social policy and business administration that also had a strong applied dimension.

The paper we produced as a result of our short project (Furlong and Oancea 2006) attracted widespread interest - both in the UK and internationally. In the UK it was widely distributed and discussed and was referred to explicitly in the 2008 Research Assessment Exercise (RAE) criteria for education; in Australia the paper was published by the Australian Associations for Research in Education as one in a series focusing on issues of quality in the run up to their own research quality assessment. However, not all of the responses were positive and the paper also attracted some sustained criticism (Kushner 2005; Hammersley (2006).

Our aim in this particular paper is not simply to reproduce our earlier arguments, nor is it specifically to respond to our critics. Rather we have used the opportunity of writing the opening paper to this special edition to restate our original ideas, elaborating, developing and refining them where we think that this will help in making them more explicit in the hope of moving the argument on.

The sub-title of our original paper was 'a framework for discussion'. What we present here therefore is a further reflective iteration of our original paper, contributing to what we hope is an on-going debate in this important issue.

2. Quality and the changing policy context

The past 20 years have seen growing emphasis on quality in relation to governance, public services, and consumer goods and services. This discourse of quality has also permeated the field of research, to the extent that it has almost replaced in public consciousness earlier debates about 'scientificity'. Tighter accountability regimes and the scarce resources available for public research in the late 1980s, coincided with an increase in the policy interest for research assessment, culminating with the creation in the UK of the Research Assessment Exercise. An unplanned consequence of this was the pressure for more articulated definitions of quality in research intended to attract widespread consensus and to justify funding decisions.

The interpretation of both 'quality' and 'relevance' in public assessments of research, however, generated in many circles increased concerns about the treatment of certain types of research. Somewhat paradoxically, applied research often found itself among those singled out as under threat: what should have been an era favourable to all applied research, some felt, turned out simply to encourage its more instrumental strands. Relevance therefore remained an underdeveloped criterion, awkwardly close to 'the eye of the beholder', and worryingly prone to political interpretation. As many have argued, the RAE despite ostensibly supporting applied research (UK Funding Bodies, 2004, para 47) may have contributed to the reinforcement, rather than the solution, of these problems (see e.g. the criticisms of the RAE expressed in the Roberts and the Lambert reports of 2003 - UK Funding Bodies, 2003; HM Treasury, 2003).

We would suggest that the problem resided, in part, with a narrowing of the 'official' concept of quality, which, for lack of a better definition, tended to hover

somewhere in the space between scientificity (often defined by reference to the natural sciences), impact (reduced to, for example, observable and attributable improvement in practice), and even productivity (whereby volume was mistaken for an indicator of quality). In such a context, the assessment of applied and practice-based research perhaps inevitably drifted towards simplistic concepts of linear application and technical solutions. In the case of educational research, this happened on the back of long-lasting controversies about the nature of inquiry and of knowledge in the field, and of some already heated disputes about its relevance, quality and impact in the late 1990s (see for example Hargreaves, 1996; Tooley and Darby, 1998; and Hillage *et al*, 1998, analysed in Oancea, 2005; Furlong, 2004, 1998; Pring, 2000).

Over the course of the study reported here, we found ourselves unable to situate our emerging proposals within the above framework. Our project was therefore an attempt to reframe the problem, by interpreting ‘application’ as a **complex entanglement of research and practice**, ‘assessment’ as **deliberation and judgement**, and ‘quality’ as **excellence or virtue**, in a classical (Aristotelian) sense of the terms. The remainder of this paper will clarify what we mean by these terms¹. First, it will clarify the scope of our study and what we mean by applied and practice-based research; second, it will outline a threefold understanding of excellence in applied and practice-based education research; and third, it will seek to unpack the meaning of this concept of excellence for research assessment.

3. The project

As we have already noted, the work reported here started as a project commissioned by the ESRC in 2004 and completed in 2005. The original remit was to explore ways of looking at the quality of applied and of practice-based research in the field of education that might be able to inform fairer assessment

¹ This part of the argument is developed further in Oancea, 2006.

criteria. Our initial proposal to the ESRC had two main intentions: to collate and analyse various views on what applied and practice-based research may look like in the field of education; and to explore and systematise the understandings of quality that were underpinning its assessment in a range of contexts. In pursuit of the former, we proposed a literature review and a series of small 'case-studies' concentrating on several modes of applied and/or practice-based research (e.g. action research, parts of evaluation research, use-inspired basic research) and several initiatives directed towards promoting them. As for the latter, we envisaged the collection of statements of criteria from a diversity of contexts of assessment (publication, funding, degree awarding, review, and use), the analysis of their content and style, the discussion of the conclusions from each of the case-studies and in a wider process of consultation (involving, among others, an advisory group of eight). In the end, in addition to an extensive literature review, we conducted five interviews, three workshops and meetings, ten invited briefings and seven small case-studies (discussed and agreed with key persons involved)²; in addition, over forty sets of criteria in use at the time of the project were submitted to textual analysis.

As the project evolved, and more and more people engaged with the emerging findings, it became clear that what was needed was not yet another set of criteria to add to the ever growing mass of existing checklists, but, rather, a document that would attempt a) to recognise the diversity of perspectives on applied and practice-based research quality in education, and of the ways in which they build their legitimacy; b) preserve the importance of methodological and theoretical soundness in applied, as well as in 'curiosity-driven', research; and c) emphasise

² The invited briefings covered interpretations of applied and practice-based research and of its quality from: the Teaching and Learning Research Programme; the Applied Educational Research Scheme (Scotland); the Centre for Applied Research in Education, University of East Anglia; CUREE – the Centre for the Use of Research and Evidence in Education, Coventry; the EPPI Centre, London Institute of Education; the Research Unit for Research Utilization, University of St. Andrews; the Effective Provision of Pre-school Education (EPPE) Project, University of Oxford; the Scottish Executive Education Department; the General Teaching Council for England; and the Teacher Training Agency. The mini case-studies included: Best Practice Research Scholarships; Networked Learning Communities; Applied Educational Research Scheme (Scotland); Teaching and Learning Research Programme; the General Teaching Council for England's 'Research of the Month' web initiative; the Teacher Training Agency School Based Research Consortium; and the EPPE research programme at the University of Oxford.

the principle that research in education ought to be assessed in the light of what it wants and claims to be, and not through a rigid set of universal 'standards'. In attempting to do so, we realised that such a document would have to stop short of providing any list of criteria that claimed to be comprehensive, discrete, or universally applicable. This realisation resulted in a shift, over the life of the project, from a discussion of 'criteria' and quality 'dimensions' to one of contexts of assessment, modes of research, and expressions of excellence.

A second important shift in our understanding of the task ahead occurred very early in the process. The mass of checklists and indicators, once collated and analysed, proved less helpful than we had hoped. The reason for this was that most of them were stripped not only of contextual information, but also of any explicit indication of their deeper, often conflictual assumptions about the nature of knowledge, about the forms and strength of their warrants, and the (educational, ethical, political, etc.) relationship between modes of research and society. Throughout the life of the project, this gradually emerged as the main concern permeating our work. As a result, the framework we proposed was intended to be read not as an attempt to regulate even further what applied research in education 'should' look like (though we acknowledge the fact that a weakness of the framework is the fact that it cannot prevent such use), but as part of a struggle to recapture a cultural and philosophical dimension of research assessment that had been lost in recent official discourses.

4. Complex entanglements of research and practice

The first difficulty that we encountered in our work was defining its scope or coverage. There are many competing, though overlapping views about the specific modes of research to be included under the categories of applied and practice-based research. Some of the more powerful interpretations in the public policy domain in recent years are those of the OECD (2002a) and of Stokes (1997), also urged in the field of education: OECD (2002b) and Feuer and Smith (2004).

The OECD Frascati Manual defines applied research as: ‘original investigation undertaken in order to acquire new knowledge.., directed towards a specific practical aim or objective’ (OECD 2002a: 78). They go on to suggest that applied research is undertaken either to determine possible uses for the findings of basic research or to determine new methods or ways of achieving a specific and predetermined objective.

Stokes (1997) on the other hand suggests cross-cutting the idea of ‘use’ with the pursuit of ‘fundamental understanding’ to produce a quadrant model that encompasses ‘pure basic research’, ‘pure applied research’, and then Pasteur’s quadrant - ‘use-inspired basic research’ (Figure 1). The latter sort of research, he argues, should address genuine problems, identified by policy makers and practitioners; such research could thus contribute both to knowledge production and to policy and practice.

Figure 1. Pasteur’s Quadrant (Stokes,1997)

		<i>Considerations of use?</i>	
		No	Yes
<i>Quest for fundamental understanding?</i>	Yes	Pure Basic (Bohr)	Use- inspired Basic (Pasteur)
	No		Pure Applied (Edison)

However, many of the assumptions underpinning both of these interpretations remain firmly within an instrumental framework. On the one hand, they see applied research as a means towards attaining pre-defined aims; these aims are external to the process of research itself, and their attainment coincides with solving practical problems. On the other hand, they seem to embrace a hierarchy of knowledge in which the difference between theoretical, propositional types of knowledge and practical, implicit ones is one of status, rather than of mode. Other proposals are built on similar assumptions. For example strategic research' is seen by OECD 2002a and Huberman, 1992, as research which aims to combine scientific understanding and practical advancement with researchers becoming engaged in the quite separate political processes necessary to achieve change.

Yet there are models of research that have attracted growing interest over the past few decades that have fundamentally challenged the idea that applied and practice-based research are purely instrumental pursuits. For example, action research (Stenhouse 1985; Carr and Kemmis, 1986; Carr, 1989; Elliott, 1991), evaluation research, and reflective practice approaches (Schön 1983), all illustrate how research may contribute to theoretical knowledge *while at the same time* being part of changing practice in a way that is intrinsically worthwhile. They foster theoretical, as well as practical modes of knowledge, and point up the complexities involved in bringing research and practice together.

What these different models highlight are the variable boundaries within which applied and practice-based research can situate themselves, and their relationships with practice and policy. While this may encourage great interest in them, it allows for even greater disagreement as to how they may be defined and therefore how they might be assessed. In our project, we eventually chose to define applied and practice-based research inclusively, as **an area situated between academia-led theoretical inquiry and research-informed practice, and consisting of a multitude of models of research explicitly conducted in, with, and/or for practice.**

5. Expressions of excellence

In considering the issue of quality in applied and practice-based research, the challenges we faced were, however, not merely ones of definition. What our analysis revealed was that quality in applied and practice-based research was peculiarly difficult to pin down because of researchers' insistence on mixing different forms of knowledge; mixing their theoretical claims and concerns with practical ones. As a result, though in principle it might be possible to judge applied and practice-based research from a purely methodological perspective, this leaves out the most interesting part of the problem - their relationship with practice and policy. Part of the task of seeking a more rounded judgement was therefore to see how notions of quality might respond to the diversity of ways in which applied and practice-based research place their emphasis on the relationship with practice (including policy) and with practitioners and users.

In trying to understand that diversity and possible different conceptions of quality more clearly, we returned to the work of Aristotle³. Aristotle operated with a distinction between several different domains of knowledge (or of engagement with the world), each with its own forms of excellence that could not be reduced to others. In our account of quality in applied and practice-based research we focus on three such domains, derived from Aristotle's distinctions: *theoresis* (contemplation); *poiesis* (production); *praxis* (social action). Within each of these domains there is space for excellence, or 'virtue', epitomised by three further concepts: *episteme theoretike* (knowledge that is demonstrable through valid reasoning); *techne* (technical skill, or a trained ability for rational production), and

³ Apart from the Aristotelian text of the 'Ethica Nicomachea' (EN), in its Oxford translation, our main sources for this discussion will be Joseph Dunne's interpretation of Aristotle's refined concept of *techne* (rather than what he calls his 'official' concept) and of *phronesis* in his 1993 book 'Back to the Rough Ground', and Martha Nussbaum's discussion of *techne* and *episteme* in Greek tragedy and philosophy, in her 1986 book 'The Fragility of Goodness'.

phronesis (practical wisdom, or the capacity or predisposition to act truthfully and with reason in matters of deliberation, thus with a strong ethical component) (Aristotle, EN, 1139a 27-28, 1178b 20-2). Our interpretation of these three concepts is in agreement with their description by Aristotle as intellectual virtues, or excellences (EN, 1139b, 10-20; see also 1106a, 5-25 and 1098a 15-20).⁴.

The concept of 'quality' adopted in this paper embraces both aspects of Aristotle's distinction outlined above. Firstly that, despite the fact that each of the three domains (*theoresis*, *poiesis*, and *praxis*) are different and cannot be reduced to any of the others, they are still compatible and, in fact, complementary; secondly that it is possible to identify different forms of excellence or virtue in each of these different domains (*episteme*, *techné*, *phronesis*). If we adopt this perspective, then the problem in defining quality in applied and practice-based research is not one of fine-tuning a single set of criteria to cut across its possible embodiments, but, rather, one of capturing the deep distinctiveness of the three domains and of their expressions of excellence, while at the same time allowing for compatibility. This is why for the remainder of this paper we have chosen to refer to 'domains of quality' and 'expressions of excellence' in each domain, rather than to 'criteria of quality'.

5.1. *Episteme* - demonstrable knowledge

The first category underpinning our account of quality in applied and practice-based research is that of theoretical or 'contemplative' knowledge - i.e., the type of rational activity that Aristotle calls *theoresis*. 'Application', from this perspective, normally translates as a gradual gliding from the general to the particular, and from the abstract to the concrete.

Excellence in this mode of knowledge (*episteme theoretike* or 'demonstrable knowledge') involves developing what we might today call 'scientific' knowledge that can lead to 'judgement[s] about things that are universal and necessary',

⁴ See also Nussbaum, 1986, p. 6.

(EN, 1140b, 30-35, 1139b, 25-35). Researchers concerned with epistemic excellence, therefore, see themselves as contributing to the (methodologically rigorous) search for articulated and justified knowledge. By virtue of its concern with the universal, explicit, and demonstrable, this mode of knowledge is usually associated with basic research, and many doubts have been expressed about the potential contribution that applied and practice-based research may have in this domain. However, as argued by, for example, Sylva et al, and Somekh and Saunders (in this issue), research that defines itself as essentially applied may also have theoretical and methodological solidity as core values. In assessing the quality of applied research carried out in this mode, therefore, it is reasonable to expect many of the concerns normally associated with 'basic' research (such as validity, reliability, transparency, etc.) to retain a central role.

One of the core ideas that emerged powerfully from our case studies and interviews was that these sorts of 'traditional' concerns about (abstract, propositional) knowledge, including issues of methodological rigour, must continue to be seen as important in judging the quality of applied and practice-based research. This was seen by virtually all of our respondents as being central to the nature of 'scholarly' research in general. Nevertheless, in the case of applied and practice-based research, it was argued that considerations of worth could not stop there, but needed to be balanced by further concerns, related to the relationship between research (its processes and outcomes) and practice and policy. Ignoring this in research assessment, it was argued, would be a missed opportunity to understand the theoretical and methodological concerns of applied and practice-based research in their own terms.

5.2. *Techné* - technical skill

The domain of 'production', or *poiesis*, concerns the activity of installing order and increasing human control over underdetermined circumstances. From this perspective, practice is seen as the pursuit of predefined ends through the careful selection of suitable means; at its best, the process involves design or planning, trial and error, and a concern for the efficient use of the resources available.

Research and its findings may assist this process and provide the rationale for (some of) the choices being made. And some practice-based researchers do see themselves as contributing to this process: using their research to painstakingly search for certainty, for explanation, and the systematic piecing together and weighing of evidence that can then be ‘applied’ in policy and practice.

Excellence in *poiesis*, is *techne*; it is akin to what we might today term technical skill. In our context, this would mean using research-based knowledge to attain specific, externally defined, ends or to bring about certain states of affairs, by controlling the resources and procedures involved in doing so. And indeed much educational research does aspire to be ‘applied’ in this way.

This does not mean that research that embraces such aspirations is exclusively concerned with instrumental efficiency. Technical excellence does not have to be narrowly instrumental, in the sense of research being restricted to on-demand provision of cost-effective, pre-designed ‘expert’ solutions to practical problems. Rather, the ‘value for use’ of applied and practice-based research involves careful consideration of the variable circumstances of one’s intervention (Aristotle, EN, VI, 1141a 10-15), driven by the aspiration for control, precision, systematicity, and explanation (Nussbaum, 1986, pp. 95-97). It is therefore against such aspirations that, for example, various types of reviews of evidence and synthesis of findings need to be assessed, rather than against any ideas of immediate application or recipe-like translation of research into practice.

5.3. *Phronesis* - practical wisdom

Many of our respondents noted and emphasised that, despite the inherent worth of the above account, it still falls short of capturing the ‘hot’ and ‘messy’ (Law, 2004; Schön, 1983) character of the relationship between applied research and practice. They saw the core value of their work as concerned with the domain of *praxis*, rather than *poiesis*. From a perspective centred on *praxis* (virtuous action in the public space), the entanglement of research and practice becomes akin to a way of life: the so-called ‘application’ becomes first-person action, the striving

for excellence which comes from within, rather than from external ends, gains, or impositions. Research still attends to reason and knowledge, but opens itself up to experiential modes of knowledge 'within the context of an even closer attention to concrete situations' (Dunne, 1993, p. 313).

From this point of view, practice is more than the application of skills; it involves deliberation about ends and reflective choice, and so is ultimately both educational and social (Gadamer, 1975). It requires an act which is more akin to 'perception' (i.e. immediate grasp of the concrete and particular) than to the application of general rules (research-derived ones included): "perception' can respond to nuance and fine shading, adapting its judgement to the matter at hand in a way that principles set up in advance have a hard time doing' (Nussbaum, 1986, p. 300-301).

Excellence in praxis is practical wisdom derived from experience, what Aristotle calls *phronesis*. Practical wisdom is not a discrete skill, but is embedded in who we are, individually and as a community. One does not 'have' or 'possess' wisdom, to employ as one likes or needs, but, rather, one is (or is not) wise, and acts accordingly; such wisdom grows from experience, in which engagement with research can be one factor alongside others. As such, the distance between possession and application of skill that characterised *techné* disappears: practical wisdom is a way of being and acting in the world, and so it cannot be possessed, forgotten, or 'applied' imperfectly; in other words, it cannot be instrumentalised.

Seeing the relationship between applied and practice-based research and practice from this perspective, points to the need to recognize not only the difficulty of research capturing this dimension of practice, but also the difficulty of establishing any firm principles for research assessment. Practical judgement is ethical and professional, and ultimately human, which is why practical excellence is so difficult to achieve, to describe, and to assess; it is the practically wise person who chooses the salient issues and sets the implicit standards through

the very act of her judgement and in the concreteness of her situation (see EN, 1109b 15-25).

A consideration of phronesis therefore raises important questions about research assessment, where current practices are so deeply embedded in a technical framework: is it at all possible to open assessment practices and criteria towards such an understanding of research and of its relationship to practice? Later in this paper, we experiment with this possibility by discussing *capacity building and value for people*; nonetheless, the inherent difficulty of glimpsing and articulating descriptors of practical excellence in applied research means that only a tentative and under-developed list of features can be proposed.

6. Assessing quality in applied and practice-based research

Given these conceptual tools, how can we begin to articulate the constituents of excellence in applied and practice-based research, and the relationships between them? In this section, we look again at the three domains of quality outlined above in the very specific context of public assessment of applied and practice-based education research. The account of 'quality' that we put forward does not aspire to be more than an illustration of aspects worthy of consideration in assessing applied and practice-based research. We do not claim that it covers all possible criteria, or that it brings them to harmonious agreement, capable of securing full consensus within the education research communities. Rather, it is a discursive tool for catalysing the ongoing conversation about quality, and a way of playing with the possibility of opening this conversation up to perspectives that go beyond traditional oppositions between academia and policy, theory and practice, blue-sky and applied research, etc. As a tool, it cannot create consensus where it is inherently lacking. While this limitation does not necessarily undermine the worthwhileness of the exercise, it does however

temper any expectations about its potential to provide a neat, 'technical' solution to the education research assessment conundrum.

6.1. The epistemic domain

As the huge literature on research methodology demonstrates, there is widespread variation in the standards and conceptualisations of good research adopted by the numerous and often competing traditions of applied educational research. However, despite the ongoing controversies, there is also evidence of a more or less shared core of concerns when it comes to examining methodological and theoretical robustness. This does not mean that all traditions of research share the same methodological concerns, rather that their interpretations of excellence may overlap in places.

The following descriptors illustrate attributes of research that seem to be reiterated, though in different interpretations, across a wide range of models of applied research, as described by our respondents and in the literature, and that are therefore worth considering when planning an appraisal process.

- a) **Trustworthiness.** Trustworthiness it is a concept that is defined very differently in different research traditions. Concerns about validity; reliability; groundedness (Strauss and Corbin, 1990); dependability (Lincoln and Guba, 1985); believability (Hodkinson, 2004), etc. derive from different interpretations. But despite the fundamental differences between many of the philosophical presuppositions that underpin each research tradition, they seem to point to the same direction: to a shared concern about the strength of warrants for the relation between the research process and its representation of the world.
- b) **Contribution to knowledge.** There is also wide agreement that research should build on what is known and contribute to it, for instance by providing a wider theoretical coverage, or by enhancing the conceptual clarity in the field. The concept of novelty or originality is often invoked, and it is usually defined

in terms of conceptualisations, systematisations, theoretical insights, methods and techniques, theoretical perspectives, or unique viewpoints.

- c) **Transparency and explicitness in design and reporting.** Transparency implies that a great deal of care, reflection, and systematic attention to detail need to be involved in the design and the reporting of research, together with an effort to make it as clear and communicable to others as its nature permits. Explicitness is the feature that makes research peer-reviewable.
- d) **Paradigm-dependant criteria.** Finally we need to recognise that what is good research may well vary for any individual project on each of the above dimensions depending on the particular paradigm adopted - by 'paradigm' here we mean a complex of epistemological/ philosophical and methodological traditions, shared practices etc. used within a particular 'epistemic community'.

6.2. The technical domain

The most pervasive expectation from applied and practice-based research is that they provide 'value for use'. But, as we argued above, 'value for use' means more than simply providing solutions to particular problems formulated by users; it also has to do with supporting practitioners and policy-makers in gaining increased control of the contingencies of their work. What is characteristic of technical excellence (*techné*), argues Nussbaum, is its universality (its aspiration for systematicity and unity, and its reliance on general theories); its teachability (the ability of being 'communicated in advance of the experience'); its precision (which involves setting clear measures and standards); and its concern with explanation (the ability to explain precisely how and why its procedures work) (Nussbaum, 1986, pp. 95-96).

Yet as Carol Weiss has demonstrated (Weiss, 1987), most research does not have a direct impact on either policy or practice; rather it works over a long period, changing our assumptions about the world and about the questions that

need to be asked. This she characterises as ‘knowledge creep’. Therefore if we are to appraise a piece of research on its value for use, we need to concentrate not on its actual impact - something that would be almost impossible to assess in the short term - but on its *potential value* and on the openings that it provides to realise that potential. As such, a lack of consensus is only to be expected, and the following are only illustrations of what could be the relevant descriptors.

- a) **Fitness to purpose.** Fitness to purpose is a common requirement for any research project, and it becomes particularly relevant for any model of research that is focused on being of use. Aristotle saw *techne* as the source of purposive change and human-created order in the world (Dunne, 1993, p. 251). Purposiveness includes the appropriateness of the chosen means to the intended end, and the degree to which they increase the likelihood of its realisation. It need not mean mindless delivery of externally-specified products; as indicated above, the concept of *techne* is wide enough to allow for qualitative, plural ends and for activities that are worthwhile in their own right (see Nussbaum, 1986, p. 99). Further, in Aristotle’s account of *techne* there is an element of uncertainty that may open the door towards experience and creativity.
- b) **Specificity.** This refers not to narrowness of scope, but to the ways in which research responds to its user specification, as well as to the (foreseeable) specific contexts of use (SCIE, 2003). In its wider sense, specificity also refers to the clarity and precision of the standards and measures of success that applied research sets to itself.
- c) **Concern for enabling impact.** As two recent literature reviews highlight (RURU, 2005; LSRC/LSDA, 2003), a range of different strategies are available to facilitate impact of research e.g. active dissemination, closer links between researchers and practitioners, and recruiting expert and peer opinion leaders. However, if it is to avoid being ephemeral (Breuer and Riechertz, 2002), applied research needs to strike a balance between short-term and long-term benefits; it is nonetheless very difficult to argue that there is an inherent hierarchy between these two types of effects. Efforts to ensure the

accessibility of research to a practitioner audience can also be an expression of this concern.

- d) **Operationalisability.** Applied and practice-based research can provide links and openings that allow them to be operationalised in the development process. The forward link to development depends on the nature of the research question, the level at which it has been pitched, and the characteristics of the intended users and audience.
- e) **Propriety.** This involves the degree to which research conforms to legal requirements and to ethical principles, often formalised in the relevant professional communities as ethical codes. We shall return to deeper forms of ethical engagement in the discussion of practical excellence below (the *phronetic* domain).

Strategic and economic value.

As part of the technological approach to quality, we also need to recognise that in the assessment of applied research by the organisations that fund or commission it, but also in the public arena, there is a clear concern for research to provide 'value for money'. Indeed, many criticisms of educational research during the 1990s were levelled on counts of poor value for money (Tooley and Darby, 1998; Hillage *et al*, 1998). 'Value for money' can be either directly quantifiable (such as the number of successful curricular materials produced or consultancies contracted as a follow-up, all related back to the costs of the original project), or it can be expressed in terms of competitiveness on a national and international market where research prestige, capacity and dissemination can be crucial in securing further funding for the organisation, for the project, or for the individuals involved. The following aspects of research might be relevant in this respect:

- f) **Marketability and competitiveness.** Marketability refers to the ease with which applied education research can be exchanged on a dedicated 'market'. This involves both the fitness of research and of its products to be put on the

market, and the readiness of demand for such research. Gibbons *et al* (1994) speak of 'science going to market' (p.85), of 'knowledge itself becoming a commodity which is traded' (p.91). Despite reservations about the 'privatisation' of science (Kazancigil, 1998) it is clear that a wide range of factors (and particularly international competition) concur to push marketability onto the agenda of research evaluation.

g) Soundness of investment: cost-analysis/ feasibility. Research involves *costs*⁵, the evaluation of which is crucial for the funding agencies, as well as for internal management decisions, throughout the stages of a research project. At the early stages of a project, anticipated costs and considerations of feasibility are central. *Feasibility* concerns the capacity or likelihood of research of being carried out as planned and within the resources that were proposed/allocated (financial, logistics, equipment, human resources). It also involves a dimension that takes into account the potential financial and operational impact of a project/ programme and a weighing of its advantages and disadvantages.

h) Auditability. 'Audit' is traditionally defined as 'a formal examination of an individual or organisation's accounting records, financial situation, or compliance with some other set of standards' (Garner, 1999). Under this definition, 'auditability' would be the condition of possibility for audit, and it would encompass a wide range of features that make research ready for such scrutiny, from transparency and careful documenting of the theoretical, methodological and analytic decisions made (see Spencer *et al*, 2004; Beck, 1993; Lincoln and Guba, 1985) to organisational decision-making, project management and bookkeeping. Researchers need to be aware of the type of logic that underpins audit, in economic contexts in particular, and that is occasionally brought to bear on their own work (see Power 1999).

i) 'Brand' construction and consolidation. The economic dimensions of originality concern the role of 'uniqueness', in marketing terms, i.e. that which builds up a 'brand' and attracts prestige and recognition to an institution/ team, thus supporting its competitiveness on the research market. Research

⁵ In the economic sense, 'costs' –be they direct, indirect or 'intangible' – entail the value that would have been gained had the resources been used for another purpose or freed up for other research programmes

organisations enter the game of branding, for example, when they market themselves through particular accomplishments and fields of highly specialised expertise they had shown in the past and in relation to which they expect to attract further funding.

j) **Value - efficiency.** Proponents of a value-efficiency approach (e.g. Korhonen *et al*, 1998) aim to develop composite indicators of research quality that encompass bibliometric and econometric measures. As such they add to a growing number of attempts to construct more comprehensive quantitative measures of research efficiency.

6.3. The phronetic domain: capacity building and value for people

As we have already argued, practice (and policy as a form of practice) can be thought of as a space for action, whereby excellence consists of the right thinking and conduct in the realm of the ultimate and the particular. The amount of deliberation and decision involved throughout this cannot be compensated for by any technical provision; in the deliberation about 'goodness' and good ends, and about worthiness of action as a way of life, technical knowledge can only be of marginal help (see Gadamer, 1981, p. 92).

Practical wisdom as a concept has a number of important characteristics. Firstly, it involves *tacit* knowledge, which, as Ryle's (1949) and Polanyi's (1966) work make clear, can be just as important as explicit knowledge. In addition, through its *ethical* dimension and its concerns for 'good' action, practical wisdom turns *uncertainty* and *situatedness* from being a weakness (i.e., lack of accuracy and definite knowledge) to being a strength (i.e., ethical human encounters where virtue develops and is enacted). Further, practical wisdom involves *deliberation* and choice, and therefore self-reflection, as Schön (1983) captures in his concept of *reflection*. Finally, practice as a human encounter has a *dialogical* aspect characterised by an interaction, in which people work together in a combination of

mutual support and mutual criticism or challenge (see Long, 2002). This opens up the idea of *collaboration*, and that of a *critical* attitude. Many see these characteristics as crucial for the better understanding of educational practice (e.g. Carr, 2003) and for informing modes of research that move closer to practice by focusing on the enhancement of (ethically) authentic action, rather than on the accumulation of (theoretical) knowledge.

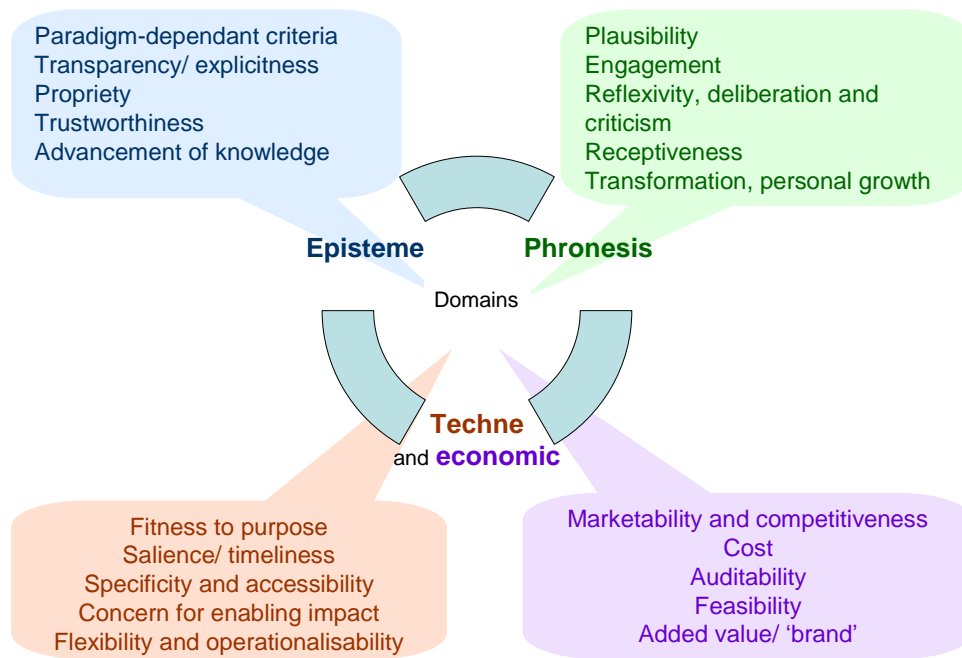
Of course, because the roots of *phronetic* engagement of research and practice are in ethical concerns and in tacit, situated knowledge, it is extremely difficult to capture in the research appraisal process. The best we can hope for is probably to identify some features that might in some way be connected with these aspirations, and try to take them into consideration whilst evaluating it. Such features could be:

- a) **Transformation: ethical and educative action.** If in the case of *techne* the value of means could derive from that of the ends, in the case of *phronesis*, genuine ethical and educational action are their own excellence.
- b) **Deliberation, reflexivity and criticism** - research that permits self reflection and self development (Breuer and Reichertz, 2002, p.6). Deliberative excellence (*euboulia*) is for Aristotle a sub-virtue of *phronesis* involving 'correctness of thinking' and of choice (EN, 1142b); reflexivity and criticism may contribute to this;
- c) **Engagement** in and with research (including partnership and forms of involvement of practitioners/ participants in the process of research);
- d) **Plausibility** from a practitioners' perspective;
- e) **Salience/ timeliness.** One of the advantages of applied and practice-based research is that they can be much more finely attuned to the concrete and current problems of practice. Right action presupposes the ability to select those issues that are salient to the problem, and to act in the appropriate way at the right moment (*kairos*): 'rightness in respect of both the end, the manner, and the time' (EN, 1142b, 25-30). It is a process of choice to which experience - including experience of engagement with research - is central;

f) **Receptiveness and dialogue.** This refers to enhanced receptiveness to practitioners' viewpoint, amongst professional researchers, but also to building receptiveness to research amongst practitioners, policy makers and in the larger public sphere. This entails dialogue (*dialegein* - welcoming the difference), which, as Dunne (1993) argues, involves 'hospitality' to the perspective and jargon of others (p. 24).

Figure 2 summarises our exploration of the three domains of quality in applied and practice-based research discussed in this paper.

Figure 2. Domains of quality



7. Tensions and Points of Contact

One question that has been left open from the foregoing analysis is: Is the expectation justifiable that each of the three domains of excellence can offer legitimate guidance to the assessment of applied and practice-based research

(as long as it does not push for hegemony)? In other words, can the shaded areas in Figure 2 above overlap?

Addressing this question from the Aristotelian perspective adopted here involves conceptual argumentation that is beyond the space and the purposes of the current paper. Oancea (2006) considers the possibility of overlaps and ‘points of contact’ between *episteme*, *techne* and *phronesis* in more detail.

The merger of epistemic and technical concerns is not difficult to conceive, given the compatibility of the types of rationality underlying them and the importance of universal principles in (most) technical projects. It is less clear however whether and how assessment can recognise both *episteme* or *techne* and *phronesis* at the same time. This is probably what sits at the heart of much dispute about the assessment of, particularly, practice-based research.

In their most archaic of meanings, however, as well as in Aristotle’s use of the terms (in a reading that reaches beyond his repeated emphasis on their points of contrast), the three domains have in common a concern for reason and an aspiration for truth; they are multi-layered and allow for a degree of mediation between universal and particular, abstract and concrete. In addition, the three concepts meet in their preoccupation with the ‘humanly good’ (Gadamer, 1975, p. 278) and the sense of ethical engagement and personal transformation that fuels it. As such, while none of them can substitute for the others, they complement each other. This is how it may become possible, in assessing applied and practice-based research, to pay attention to epistemic, technical and practical concerns alike⁶. This can also be seen as one of the major strengths of applied and practice-based research: by virtue of their nature and aims, they are engaged in constant negotiation and reconciliation of what otherwise may have seemed to be very distinct modes of knowledge (and associated articulations of ‘good research’). Despite the difficulties generated by the inherent tensions

⁶ For further development of this argument see Oancea (2006).

between an epistemic, a technical, and a practical understanding of excellence, research assessment needs to try and capture the value and legitimacy that each domain may carry in specific contexts and for specific projects.

5. Conclusions

This paper has argued for a more flexible and generous understanding of the quality of applied research in research assessment. It has experimented with reframing the issue in terms of expressions of excellence in the complex relationship between research and practice. It has stopped short of providing any 'solution' to a problem that was not merely technical.

The engagement with Aristotelian concepts throughout this paper was intended as a starting point for reinserting the discussions about 'quality' into ongoing conversations about modes of knowledge and rationality, and the relationship between research and practice. It was through such conversations, we hoped, that the discourse of quality in applied and practice-based research might be steered away from purely managerial and instrumental frameworks (which Elliott, 1990 associates with a 'decline in excellence') towards an understanding that is more attuned to the actual diversity of modes of research and of their links to practice.

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