The Divorce of Schooling and Research

Towards a reconciliation in teacher education

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Keywords: research, higher education, schooling, teacher education, knowledge, practice, competence, performance.

> Nearly twenty years ago, now, I was breakfasting with a friend at her home when her young son dipped his hand into the pot of jam that had been placed in the centre of the table.
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> "Why are you putting your fingers in the jam?" my friend asked, "Wouldn't it be better to use a knife or a spoon?"
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> "Why don't you just tell him to get his hand out of the pot?" I enquired.
>
> "Because Basil Bernstein has told us that we should speak to our children in elaborated code." (Dowling, 1999; no page nos)

Such injustice to our former mentor[1] illustrates one mode of the somewhat unhappy relationship between schooling and research. The mother was a qualified primary school teacher, who had completed her training in the UK at a time when the principal university-based input was generally organised under the headings of the so-called 'fundamental disciplines' of history, philosophy, psychology, and sociology of education. This kind of recontextualised research appears often to have had extensive and quite damaging effects. Walkerdine (1984), for example, describes the relationship between the stage theory of Jean Piaget and the practical concept of 'readiness', whereby children were deemed not to be 'ready' to engage in abstract reasoning until towards the end of primary schooling; Piaget's genetic epistemology transformed into a prescriptive and limiting curricular principle. Walden & Walkerdine (1982) also describe how the privileging of 'play' over 'work', again recontextualising Piaget, could be seen to be recruited in the gendering of teachers' assessments of students' competence and performance. Piaget's work also inspired The Plowden Report (CACE, 1967) and, through this, progressivism in primary education in the early 1970s (see Gillard, 2004) and this mediation of research by government sponsored reports and initiatives represents a second mode of the schooling-research relation.[2] A similar mode of mediation is to be found in the 'new' or 'modern maths' initiatives in the 1960s and 1970s. This involved the recontextualising of

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[1] Basil Bernstein was the doctoral supervisor of both of the authors of this paper.

[2] There are, of course, many examples, but see Dowling (1991) on the role of research in the Cockcroft Report (1982), Brown (1992) on the recontextualisation of research in primary school mathematics and Dowling (1998), which includes a brief discussion on the citing of research by the new ANC government's White Paper on Education in South Africa (DOE, 1995).

bourbakiism in the philosophy of mathematics (Cooper, 1985; Dowling, 1998 and in press; Moon, 1986). Both of these modes of the schooling-research relation entail a presumption that research should or can prescribe or at least inform teachers' professional practice in schools. Yet, even were this presumption to be taken at face value, the manner in which research crosses over between the university and the school is—in these and other cases—such as to transform it, very often out of almost any recognition.

Of course, a good deal of research is empirically based in schools. Much of this, however, feeds the publications lists of the researchers, who are likely to be assessed in terms of their academic output, rather than for anything that directly addresses practitioners. Some approaches are, though, explicitly intended to have a directly developmental value for practising teachers. Such is the case, for example, with action research that is conducted by professional practitioners and targets problems that arise in professional practice. This is certainly a mode of research that we would encourage. However, it clearly does not involve large numbers of teachers and, to the extent that it is carried out in the course of a masters or doctoral programme at a university, one would need to be clear that the research is *for* schooling, rather than *for* academic enlightenment; it is, of course, in academic libraries that much of this work is published. The fact seems to remain that, by and large, researchers write for and are read by other researchers. It seems likely, also, that professional teachers generally neither conduct research, as such, nor are they likely to read it in an unmediated form. This distance between research and educational professionals is now heightened in the UK by a form of state regulation of initial teacher education that all but eliminates any substantial engagement with the 'fundamental disciplines' or any other kind of educational research; in general, the use of the term 'divorce' to describe the relationship between schooling and research seems—at least in the UK at present—to be not entirely inappropriate; how might this situation be addressed?

Argument over whether schooling is properly concerned with the reproduction or with the production of culture has been around for a very long time as have attempts to reconcile the two (see, for example, Benne, 1970). Our position is that *education*—a more general term than schooling—is clearly concerned with both. That is, we are understanding education to refer to the production of new competences and performances, where the former are to be interpreted as institutionalised forms of the latter (see Dowling, 2005a also 2005b). Thus the production of new competences (eg in individuals) constitutes cultural reproduction and the production of new performances constitutes cultural production. A second dimensioning of cultural practices is given by the extent to which their principles are made explicitly available. Dowling (1994) refers to this dimension as the level of *discursive saturation* of a practice. In institutionalised *competences*, high discursive saturation practices (DS^+) may be referred to as *discourses* and low discursive saturation practices (DS^-) as *skills*. *Idiolects* and *tricks* are the corresponding terms for weakly institutionalised DS^+ and DS^-performances. Thus Figure 1 may be described as an educational possibility space.

Education is clearly a feature of all areas and aspects of culture. However, in the globally dominant societal forms, its principal institutionalised forms are schooling and research with the school and the university, respectively, standing as their key institutions. We shall now consider the forms that this institutionalisation of education is tending to take in these societies as represented by the UK (see also Dowling, in press).

	Level of Institutionalisation	
	I^+	I^-
DS^+	*discourse*	*idiolect*
DS^-	*skill*	*trick*
	Competence	Performance
	Cultural Reproduction	Cultural Production

Figure 1
Educational Possibility Space
(From Dowling, 2005b)

Much of the work of academics—particularly the more junior members of faculty—is concerned with teaching on undergraduate and postgraduate programmes, including, of course, teacher education programmes. These activities are principally to do with the production in students of discourse competences relating to subject knowledge (the products of past research), research methods and, in the case of teacher education, pedagogic and professional competences. They also involve the development of skills such as academic literacy (see Dowling, 2005a). These aspects of the work of the university have a tendency to resemble schooling except insofar as the curricula are dynamically sustained by the continual introduction of new material produced by ongoing research activity. In general, however, the highest status of university activity and the activity by which academics are most likely to be measured in relation to applications for tenure and promotion is research. The key criterion that establishes research as such is that it must be original. This is the most fundamental requirement for the doctoral thesis. Contributions to academic journals will also need to be recognised by peer reviewers as original as must proposals submitted to funding agencies for research funding. In the UK, state funding for universities is substantially dependent upon their score in the Research Assessment Exercise (RAE) administered by the Higher Education Funding Council (HEFC). This score is based on the review of research output by individual academics in

terms of quality—which must be concerned with originality as well as other features, such as influence—and quantity. The importance of the RAE in relation to funding clearly entails that institutions must motivate their academic staff to increasing levels of research activity. These features of Higher Education are examples of what Dowling (2005b) has referred to as *diachronising strategies*: they clearly tend to privilege a constant calling into question of what counts as knowledge in a field.[3]

The nature and extent of the impact of such strategies is going to depend upon their interaction with other strategies. In certain areas of the university—in particular, in the natural sciences—we find the strong institutionalisation of key paradigms and problematics both in the university itself (and see the different forms of description of such institutionalisation in Fleck, 1981; Kuhn, 1970; Merton, 1973; see also Ward, 1996) and via the implication of scientific and engineering research in commercial activity outside the university. Here, we might expect research most commonly to proceed as Kuhnian 'normal science' or what Dowling (in press) refers to as *equilibration*; that is, continued and continually thwarted attempts at stabilisation within singular, which is to say, strongly institutionalised discourses. These areas of the university will tend to sustain strongly coded conceptual fields that resemble what Bernstein (1999, 2000) has called hierarchical knowledge structures.

In other areas of the university, however, the institutionalisation of conceptual fields is comparatively weak. Here, we would differ with Merton (1973) and place sociology in this category, but educational studies is quite clearly another instance. With no institutionalised resistance to the diachronising strategies of Higher Educational practice, we might expect to see what, in fact, we tend to find; something closer to the bridge burning/rebuilding anomie of fashion than the comparative stability of paradigm development. Where singularity in discourse is recognised, the circulation of research output can often resemble open, *narrative exchange* (Dowling, in press)—the swapping of stories with minimal attempt at critique or reconciliation—more than the putative closure of *equilibration*. Nevertheless, in both forms, the character of research is structurally dynamic with the attendant privileging of performances over competence or, rather, the confinement of competence to an expanded form of methodology.

As we have suggested, in respect of teaching, the university bears some similarity with the school. However, there are limits to this similarity. The university library, for example, is generally required to keep up-to-date with the field. It is able to achieve this by offering its resources on a short-term loan or read only basis. It can thus operate with, in comparison with the number of students, a small number of copies of any given text. Where longer term possession of texts is recommended, it is generally the student who is responsible for their purchase. This presents no real economic inhibition to a dynamic curriculum and textual resources may be changed with each new cohort of students. Such a dynamic is encouraged by the tendency of

[3] The use of the term, 'strategy' is not intended to imply any necessary self-consciousness on the part of any individual or group.

faculty members to recommend their own latest books and articles as key course texts or, at least, as recommended reading. In the State school, however, the provision of textbooks is generally provided for by school funds and these books are made available to all students on long term loan at the end of which they are collected in and generally reused for the next cohort. The provision of a textbook for each student clearly involves a heavy financial commitment that in and of itself is an incentive for stability. This *synchronising strategy* (Dowling, 2005b) is reinforced, in the UK, by an array of State activities including the provision of a National Curriculum (see Dowling & Noss, 1990), nationally standardised assessments and school inspections and public examinations. Also tending to stabilise the curriculum, particularly in the areas of mathematics and science, are the high profile international studies, such as *Trends in Mathematics and Science Studies* (TIMSS) that are intended to be comparable over extended time spans. The results of such studies are presented in the form of international comparisons and are recruited by governments and their critics in political discourse (see Dowling, in press). It is also generally the case that teacher education is heavily front-loaded, with the teacher's authority—at least as far as curriculum is concerned—strongly resting on their subject degree and/or initial teacher education. Teachers are, of course, strongly motivated to improve their performances. However, insofar as these performances are assessed by quantitative inspection, assessment and examination results, there is a *de facto* ceiling effect in place that is likely to be most effective in high performance schools and classrooms.

What we have described, then, is a situation in which the two dominant forms of the institutionalisation of education, schooling in the school and research in the university, are characterised by strategies that are, respectively, *synchronising* and *diachronising*. These strategies in the school privilege (which is not to say, ensure) conservative synchronism. This is consistent with an emphasis on competence, on the reproduction of discourse and skills and on the reproduction of culture. In the university, the strategies privilege dynamism either (to the extent of the discussion in this paper) in the form of *equilibration* or *narrative exchange*. It might be added that the latter might be described as an anomic, even in some respects an anarchic mode of diachronism. Schooling and research might thus be regarded not only as divorced, but as structurally irreconcilable. Ours, however, is not a determinist model. We have outlined what we perceive to be dominant strategies in the school and in the university. Being aware of them, we are, perhaps, better prepared to devise new strategies aimed at the generation of more productive relationships within and between the schooling and research.

Firstly, we will address, briefly, a problem that we have hinted at in respect of some areas, at least, in educational studies in the university. What is needed is some kind of a drag placed upon what we perceive as, shall we say, an occasional tendency towards dilettante diachronism and the reduction of academic engagement to an exchange of narratives. As we have suggested, this is inhibited in areas such as the natural sciences by a strong institutionalisation of paradigms and methodology. The absence of such institutionalisation in educational studies might be illustrated by the

organisation of doctoral research at our own institution.[4] The general approach of the research of most doctoral students, whilst negotiated and developed under the guidance of a supervisor, is generally substantially under the control of the student. This often results in members of staff working with a collection of students whose research has very little in common with each other apart from a nominal association with the loosely defined area of expertise of their supervisor. With respect to the development of their research, doctoral students are thus separated from each other, despite increasing emphasis on formal training in research and generic skills and thus the expansion of the taught components of doctoral programmes[5]. They are also separated from other students in that there are very few opportunities for them to teach on masters or other courses.

In the School of Culture Language and Communication (CLC) at the Institute of Education, we are attempting to address this by re-thinking the way in which we handle doctoral admissions. In most cases, we regard the research proposal as an indication of a general field of interest and as evidence of a knowledge of and the ability to engage critically with research literature that is relevant to that field of interest. Provided that such knowledge and ability are in evidence, a potential supervisor will consider how a particular applicant will fit into the area of and approach to research that is defined by their own research interests, that of their existing research students, and, where possible, their own teaching on masters and other programmes. One of us (Dowling) has been able to adopt such an approach for some time, now, and currently has a group of nine doctoral students, several of whom teach—either as guest presenters or as co-tutors—on masters and doctoral courses run by their supervisor. These students are researching diverse empirical sites: literary studies in the university; internet sites for fans of fantasy and horror TV shows and video games; fashion in Taiwan; the teaching of economics at Advanced Level; and so on. However, what brings them together is the general methodology, or organisational language, that they are deploying and developing (see, for example, the items by Dowling in the bibliography to this paper). The group—together with one or two additional people, including prospective students—meets on a fortnightly basis and have begun to develop joint publications (eg Burke & Papadimitriou, 2002; Chung et al, 2004). This is a small initiative and can and, indeed, is intended to establish only a limited range and level of institutionalisation within educational studies. It is certainly not designed to push towards the very high levels of institutionalisation to be found within the natural sciences. Nevertheless, the wider adoption of such approaches may foster a more appropriate balance between knowledge production and reproduction than is often currently to be found. Research, in other words, needs to produce new performances, but, if these performances are productively to engage with each other, they perhaps need to be

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[5] Brown (2005; in press), in exploring the consequences of the adoption of a training model for research degrees, argues for a broader view of research education and identifies strategies that facilitate and support dynamism and diversity in educational research.

elaborated within a less anarchic array of research competences. In the example illustrated here, the unifying competence is in the area of theory or general methodology. It is clearly possible, where appropriate, for this to extend to the delimiting of empirical fields (see Brown & Dowling, 1998) or even to exchange empirical unity for theoretical unity; a kind of theoretical triangulation, perhaps. It is also possible for supervisors to work together with larger groups of doctoral students and this happens elsewhere in CLC. The point, however, is not to build empires, but to explore productive modes of institutionalisation of approaches to educational research.

The problem in relation to schooling is the opposite from that found in the university. Here, as we have suggested, dominant strategies tend to privilege the reproduction of competence rather than the production of new performances. Research is substantially excluded. However, because the university retains a place in the initial training of teachers as well as in-service teacher education, there is the potential to cultivate a research culture in schools. Clearly, if this is to be effective, the university must establish within itself viable teacher research centres as integral to the university research community. There is also potential for placing a research approach at the heart of initial teacher education.

The development of professional doctorates offers one possibility for the productive institutionalisation of research, both within the university and in the workplace (see Scott et al, 2004). In the field of education, EdD programmes typically aim to bring the research culture of the university into constructive dialogue with the drive for professional development in the workplace. Within the university participants work together as a cohort on the taught part of the programme, developing their research plans, their knowledge of the academic and professional field and their research skills in dialogue with course tutors, research supervisors and other participants. The aim is to design and conduct professionally relevant research that contributes both to academic and professional knowledge and practice. Each domain of practice acts as a challenge to the other, and can lead to the development of strong and distinctive research communities in both the university and the workplace and a consequent productive balance between the production and reproduction of knowledge. In relation to the school, these forms of doctoral study can constitute a challenge to conservative synchronism, and in relation to the university a challenge to dilettante diachronism.

This kind of development, whilst holding the potential to cultivate a research culture in schools and other professional settings, does operate in the context of a research degree. Research and schooling can clearly be brought into a productive relation in other ways that optimise the productivity of the dynamism of diachronising strategies. Brown et al (2004) describe a programme designed to facilitate and support a collaborative research project developed with and carried out by teacher educators and government officers in Bangladesh (see also Ross & Brown, 2004). The ESTEEM Classroom Research Project, part of a larger project on the strengthening of the quality of primary education in Bangladesh, investigated the learning and teaching of mathematics in Bangladeshi primary schools. The research studies carried out (Ross et al, 2004; Brown & Ross, 2004) were designed to produce

knowledge and understanding of direct relevance to the enhancement of the quality of primary education in Bangladesh. The dissemination strategy adopted attempted to engage and inform policy makers, curriculum developers, teachers educators and others involved in the development of practice in a setting in which there has been very little classroom research and in which policy making, curriculum development and teacher education have rarely been directly informed by research.

The research was designed with a number of other objectives in mind. Firstly, it was intended to build capacity in the design, conduct and dissemination of research. This entailed the involvement of a large team of teacher educators and government officers with no prior experience in research, working on the collection and analysis of data alongside experienced researchers. To support this, a programme was designed in which participants engaged with a range of perspectives and research on classroom practice, school mathematics, assessment, teaching, learning and related areas, as well as participating in workshops on the design of research, the collection of data and other aspects of the research process. This laid the foundations for two collaborative studies in which, following the initial workshops, participants in the programme spent several weeks in the field collecting data, which they then pooled and worked together to analyse in a second series of workshops. A second objective was to give teacher educators some direct experience of teaching in primary schools. This entailed not only the requirement for all participants to collect observational and interview data in a range of types of primary schools (urban, rural and remote), but also to teach sessions using different, and novel, techniques as part of the research design. Finally, the research was designed to place participants in dialogue with teachers and to feed an awareness research directly into the classroom, and involve teachers in an immediate way in the research process. The classroom teachers were thus asked to discuss their reactions to the sessions taught by the researchers, and the reactions of the children to these, and the researchers had to elaborate the rationale for their activities in engaging with the teachers' accounts.

Whilst there is clearly not the space to explore this project in any great detail here, it does illustrate some of the ways in which research and schooling can be brought productively into dialogue in a setting where there has previously been little opportunity for the development of a relationship, let alone subsequent separation and divorce. Teacher educators in this setting have seen themselves as being very much involved in the reproduction of knowledge and practices, with no active engagement with research. This kind of collaborative research opens up the possibility of acquiring new perspectives and working collectively to transform practice both in teacher education and classroom practice, as well as providing a shared set of research practices and a common language in which to discuss and engage with both research and practice. In addition it has brought these teacher educators into the classroom and with this engaged teachers directly with research and with the potential for innovative practice in learning and teaching.

The situation in teacher education in the UK is somewhat different, but no less divided. As we have noted above, educational studies in higher education in the UK is marked by a distinct division of labour, and status, between teacher education, at

various levels, and research. The strategies for reconciliation of schooling and research explored here have focused on the strengthening of institutionalisation of educational research, in order to steer away from the exchange of narratives and towards equilibration, and the facilitation of engagement and dialogue between domains of practice, and strata within these domains, which emphasises dynamism and fosters the production of knowledge and practice. For academics and researchers in education this requires a greater sense of confidence in what we bring to the development of a productive relationship with schooling, and practice more generally. This is more than the claim to certainty of knowledge of 'what works' that has underpinned arguments for research based policy and practice (and the associated research review and synthesis mechanisms) that undermines the diachronsing strategies, which, for us, exemplify the productivity of research. Rather, it relates to the ability to provide access to the principles of production of the discourses and practices of research, whilst remaining open to the challenge of addressing the diverse contexts and contingencies of professional practice. Proposals for the development new models of postgraduate initial training, for instance to include Masters level modules, have the potential to establish productive and transformative engagement with research, but by no means guarantee this. To be productive in the terms sketched here, these initiatives have to extend beyond the agents and practices of teacher education and foster wider engagement, and ensure that we resist proceduralisation and facilitate the production of new performances in the light of pressures to reproduce competences.

To return to the possibility space opened up in Figure 1, we see strongly institutionalised, which is to say, public competences on the left and weakly institutionalised, private performances on the right. The early phase of the relationship between schooling and research involved recontextualisations of public competences—teachers explaining things to children in elaborated code. Yet in the now very weakly institutionalised academic fields of educational studies—the foundation disciplines having certainly lost their grip—we see successions of performances rendered private even in public by the dominant form of interaction that is the exchange of narratives—grooming behaviour in the academic shrewdness. Neither conservative synchronism nor dilettante diachronism have much to offer; the former fixates in a permanent state of being; the latter, rather than becoming, is perpetually running away. From this perspective, efficacy is generated in movement around the possibility space. We have suggested placing a greater emphasis on the institutionalising of competences in the university through the imposition of a greater level organisation of educational research where it is most anarchic, doctoral studies. And we have suggested opening up the school to research performances. They need to be performances precisely because research does not simply inform, far less direct general professional educational practice; it can, at best, interrogate the local practices of teacher-researchers. Research competences established in the university, though, can productively constitute the basis for these local research performances, because no practice—particularly no practice that has a tendency to privilege conservative synchronism—can adequately

interrogate itself.[6] And research performances, whether by teacher-researchers or full-time researchers may also re-enter the academic field as doctoral theses, conference and journal papers and so forth, though their authors will need to recognise that they are addressing different audiences. And it is new performances that spur the development of competences and the production of new competences. Schooling and research—the principal institutionalised forms of education—have rightly and some time ago terminated their patriarchal marriage in which the latter took the dominant role. The time is ripe for reconciliation. But reconciliation does not necessarily entail fusion nor the re-establishment of a hierarchical relationship. What we have attempted to offer here is both a theorising and an exemplification of the forms that it might take. Spoons and fingers may both, after all, have their roles to play in the jam pot.

[6] See Dowling (1993) for an earlier statement of this position.

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