

## **Practitioner research and excellence in teaching**

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### **ABSTRACT**

This paper explores the relationship between established teachers' professional learning and their use of practitioner enquiry, or action research, as a means of improving the quality of their classroom teaching. It reports on one aspect of a ten-month pilot study jointly funded by the Scottish Government and the General Teaching Council for Scotland (GTCS) to explore means of evaluating the impact of the Chartered Teacher initiative on pupil learning. Whilst the study found evidence for the beneficial effects of teachers' engagement in practitioner research, as part of the requirement for the completion of Chartered Teacher programmes, it also raised a number of issues as to exact nature of participants' learning and whether current approaches to the use of practitioner research in teacher education need to be revised.

### **PRACTITIONER RESEARCH, CHANGING CURRICULA AND PROFESSIONAL LEARNING**

After decades of employing an approach to school improvement based on embedding rational planning and performance management at organizational level, there is now an increasing emphasis on enhancing the quality of individual teachers' classroom practice as the key to improving student outcomes (Day, Sammons, Kington & Gu 2006). Associated with this concern to improve the quality of teaching has come a greater concentration on professional learning and development in both educational policy documents and academic publications. In the UK and the USA this has given a whole new life to practitioner, or action, research as part of a pragmatic, practice-based approach to enhancing teacher skills (TDA, 2009; Cochran-Smith & Lytle, 2009). Practitioner research has often been closely associated with what is called evidence-based practice in that it has served as a strategy for trying to ensure that teachers introduce practices validated by research into their classrooms. For instance, whilst Stenhouse's advocacy of teachers becoming researchers of their own practice (1975) is often cited as evidence that he was a supporter of enhanced professionalism and teacher autonomy (Kirkwood & Christie, 2006) there has been a temptation to divorce his views on teacher involvement from his belief that this was a necessary condition for developing forms of pedagogy that would support the introduction of a curriculum underpinned by a constructivist approach

to learning. Forty years on finds us in much the same position with a movement away, at least in sentiment, from an objectives-based curriculum towards a more developmental construal of learning under the aegis of the lifelong learning agenda advocated by the OECD and the European Union (OECD 1996, EC 2000)). Once more, practitioner enquiry is seen as key to securing the kind of transformation in pedagogic practice that such a change entails.

In the UK, after placing a reliance on the power of detailed, centrally prescribed curricula to improve pupil outcomes, we are seeing attempts on both sides of the Scottish border to promote the introduction of approaches based on a discourse of personalization, active and independent learning, and the acquisition of core transferable skills (Scottish Executive, 2004). The engine for this change is still seen as professional development despite the failure of continuing professional development (CPD) initiatives in the past to achieve the kind of transformation in classroom practice that these latest reforms require (Huberman 2001, Eraut 2004, Elmore 2005). This lack of past success is often blamed upon fragmentary and transmissive forms of provision that failed to engage teachers or, on the basis of a more radical critique, failed to enable them to address the structural and cultural barriers to innovation that they faced within the context of schools (Dadds 1994, Webster-Wright 2009).

There is a growing belief that professional practice is systemic in that it includes affective, cognitive, behavioural and material elements in an indivisible mix and that all these parameters are altered as part of professional learning. Evidence for this complex emerges from the results of reviews conducted by Cordingley *et al.* (2003, 2005) of studies that they judged to have established a link between collaborative continuing professional development and impact on students' learning. In describing the effects on teachers cited by these studies the review team identified the following as associated with changes in pedagogic practice: greater confidence; enhanced feelings of self-efficacy in regard to students' learning; enthusiasm for collaborative working; development of knowledge, understanding and skills in a curricular area; changes in beliefs; and access to suitable resources. Similarly Adey *et al.* (2004), on the basis of effecting an alteration of pedagogy in science classrooms, cited three key dimensions for securing changes in classroom practice. These were: firstly, in the nature of the innovation and how convincingly it can be argued and understood as being of educational value; secondly, in qualities of the provision of professional development such as longevity and intensity, and access to coaching and reflection and thirdly in the nature of the environment in which the change is engendered including levels of collegiality, the attitudes of the senior management, opportunities provided for the personal engagement of teachers and teacher turnover. Recently, in an attempt to address these interlocking elements in educational settings there has been an increased interest in collaborative enquiry and networking as a basis for professional development and school improvement which includes new

forms of partnership between HEIs, schools, local authorities and other bodies with mixed results reported so far (Sammons *et al.* 2007).

The implication is that professional growth and development that leads to a transformation in practice is about adapting complexes involving, broadly, contemporaneous changes:

- at individual practitioner level of:
  - beliefs and values (knowledge);
  - self-concept and identity;
  - relationships (with pupils, colleagues and school managers);
  - artefacts (including conceptual frameworks, procedures and material equipment);
  - and skills.
- and of persons and things within the context of the teacher's working environment to both support and sustain the development of these changes.

This more systemic and situated conception of professional learning underpins the perceived usefulness of practitioner research for a number of stakeholders in the field of both initial and continuing teacher education. Potentially it 'ticks the boxes' on behalf of a range of interests:

For policy makers:

- a) Practitioner research provides a possible means of securing the implementation of change in a system that is notoriously conservative. It holds the promise of engaging teachers directly in change processes in the workplace as part of expressing their own professional commitments and values;
- b) It can be linked to enabling teachers to demonstrate professional standards that are being used, along with compulsory engagement in CPD, to establish progression in terms of teacher expertise (Ingvarson & Kleinhenz 2006). For example in UK standards have been introduced for newly qualified teachers; for performance post-probation, as fully registered teachers; and for advanced skills teachers/chartered teachers as a measure of those demonstrating excellence in teaching.

For teachers:

- c) According to various surveys practitioner research provides a set of experiences that teachers often find to be both motivating and professionally worthwhile (Cochran-Smith & Lytle 1993: 19; Somekh 2005).
- d) It is aligned with hopes for establishing improved status and greater professional worth for teachers linked to notions of teacher activism (Sachs 2003) and a revival of teachers' engagement in decision-making about educational practice.

For higher education:

- e) Practitioner research provides a means of bridging the desire of policy makers, that teacher education and professional development should be more clearly practice-focused, school based, and supportive of the introduction of teaching standards, with the need to maintain a claim to academic respectability.
- f) It is relatively easily adapted as a vehicle for assessment and accreditation (Boud & Solomon 2001).
- g) It aligns with the growing demand for universities to demonstrate knowledge exchange and transfer into practice fields through engagement in research-led teaching and consultancy (McLaughlin *et al.* 2006)

This confluence of interests perhaps helps to account for the recent plethora of publications, aimed at a teacher audience, about how to carry out action research that have been produced over the last five years or so (Koshy 2005; Taber 2007, Baumfield, Hall & Wall 2008; Burton, Brundrett & Jones 2008; Wilson 2009). In contrast to publications relating to practitioner research in the late 1980s and early 1990s these more recent volumes represent an approach to action research that is defined in largely technical terms as a form of intervention project carried out by teachers individually in the context of their classrooms. Many of these volumes seek to address a market opened up by the incorporation of classroom research into teacher education. The origins and purposes of action research make this interpretation of the process as an individual activity undertaken for purposes of accreditation problematic. In terms of Noffke's typology of action research (2009), as framed by professional, personal and political beliefs about its value, these particular texts tend to be confined to a rather narrow professional framing in which both the political and the personal orientation towards practitioner enquiry are largely ignored. The educational importance of learning through enquiry as part of an action researcher's personal professional development interferes with notions that a researcher should maintain an objective and disinterested stance in the pursuit of valid and reliable knowledge as part of a social science research tradition. On the same grounds the collective benefits of action research as a basis for subjecting current practice to rigorous examination and critique and empowering those involved to alter it for the better are also difficult to accommodate. Thus political activism in the promotion of democratic values and social justice as part of an action research tradition also tends to be lost.

## **BACKGROUND TO THE STUDY**

When it was agreed to devolve power to a Scottish Parliament in 1999 the recognition of excellence in teaching was seen as an important tactic for improving the professionalism of teachers as part of a modernization and transformation of the Scottish educational system (Scottish Office 1999). The Chartered Teacher initiative established a new status within the teaching

profession in Scotland for recognizing excellent teaching practice (Scottish Executive 2001). It was to be achieved through qualification and rewarded by an enhanced salary. Whilst this initiative was unique it stemmed from a common concern amongst international policy makers to improve the quality of teaching in schools.

Chartered teachers are required to demonstrate they have achieved the Standard for Chartered Teacher (the Standard) (Scottish Executive 2002) by carrying out and reporting on a major work-based project to improve pupils' learning as part of a programme of professional development that has been accredited by the General Teaching Council for Scotland (GTCS). The major project assignments are treated as providing evidence of enhanced practice, their quality being assured through the compliance of approved chartered teacher (CT) programmes with the assessment criteria for postgraduate qualifications at masters level (Scottish Credit and Qualifications Framework Board 2004). Thus the successful completion of an approved CT programme assures eligible participants of chartered teacher status.

In 2009 a small-scale pilot study, funded through the GTCS, set out to explore how the impact of chartered teachers on pupil learning might be investigated. This paper reports on one strand of the pilot study which consisted of a documentary analysis of nineteen major project reports submitted by teachers who had successfully completed an accredited CT programme. Six of the eight providers were able to provide a sample of major project reports completed between 2008 and 2009 and five agreed to do so. Each institution was asked to nominate four submissions on the basis that: they reported on projects that had been conducted ethically, that they were judged to be of good quality; that they reported on changes in classroom practice; and that they represented work carried out with both primary and secondary aged pupils.

The reports were examined to explore the nature of the projects that they described, the key words and concepts used by their authors, any connections that were made between teaching and the learning of pupils and/or teaching and the learning of the author, and the kind of evidence used to support claims for learning on the part of both pupils and the author. From this initial analysis the research team distilled what each text conveyed about the author's construction of:

- accomplished teaching
- pupil learning; and
- what constituted evidence of learning.

The results of this analysis were explored in two focus groups with authors of the major project reports. The focus group meetings concentrated on what participants felt they had learned as a result of their engagement in the projects, their current understanding of accomplished teaching and what they used as evidence of impact on pupil learning.

These two sources of data (reports and focus groups) were used to address two objectives of the pilot study which were to:

- analyse and evaluate the means being used by chartered teachers to evidence the impact of their practice on pupils; and
- examine the relationship between the practice-based tasks that chartered teachers are required to undertake to demonstrate competence against the Standard and the teachers' understanding of accomplished teaching.

A summary of what was said in the focus group discussions was combined with the findings from the examination of the major project submissions and the resulting report was sent out to all the participants for comment. Some adaptations were made in the light of their feedback.

## **THE MAJOR PROJECT REPORTS**

### *The nature of the assignments*

Although there were some significant variations in the remit for the work-based assignments all the submissions took the form of a report accompanied by a selection of illustrative evidence. The work-based projects revealed an interesting relationship between the genre that chartered teachers were required to use to shape their accounts of action and experience, their performance of evidence-based practice and the value to be placed on their personal professional learning. The major projects were variously described in advice to students as: a "sustained, independent enquiry", an example of "extended professional action that enhances 'the learning of pupils and /or the ethos of the school'", a work-based project that contributes "to the learning and achievement of a specific group or groups of pupil" where participants "conduct and critically review a classroom action research project", as activities undertaken in the teacher's own classroom or school which must have an "action/ applied orientation," and as a collaborative professional enquiry to be planned and delivered with colleagues in school. Three providers required participants to present their report in a standard format for a master's dissertation consisting of; introduction, literature review, methods, results, and a discussion. One provider required a report on a collaborative enquiry suitable for publication in the participant's school along with a commentary and portfolio illustrating what the participant had learned about meeting the Standard, another required evidence of dissemination and "a reflexive account of the project which identifies the candidate's personal and professional learning". In all, three of the five providers asked participants to comment on how the project had helped them to match the Standard, two providers incorporated the wording of the Standard into their assessment criteria.

### *Classroom interventions*

Overall the studies, by their very nature and purpose, were not suited to serve as a source of cumulative data in relation to impact on pupil learning. Whilst there were some excellent examples of practitioner enquiries the sample

represented investigations that varied widely in terms of scale, focus, context and quality. Many of the accounts were thorough and thoughtful, drawing on other peoples' ideas in their inception through the use of literature and policy texts and most drew on pupil feedback as part of the research process. Just over half the projects were carried out by chartered teachers working on their own. Nine were collaborative with eight involving colleagues, and one involving both colleagues and pupils, as co-researchers, six of these collaborative enquiries were generated by teachers on a CT programme that required them to undertake a collaborative project. The numbers of pupils involved ranged from 2 to 156 where sample size was specified, a number of reports simply stated how many classes were involved in an enquiry.

All the reports gave a rationale for the study the author had undertaken and this could be based on information drawn from a variety of sources, e.g. policy texts, reports of previous research and evaluations in a given area, more general theoretical texts, internet publications etc. The extent and criticality of this research by authors into what others had written about their area of interest was variable and clearly influenced by the programme they had undertaken.

Two of the projects did not directly concern the engagement of their authors in a teaching intervention. Of the remaining seventeen accounts five were specifically focused on particular problems in relation to learning but eleven described enquiries based on the evaluation of a recommended innovation or teaching 'pack', often as part of a school's improvement agenda. In terms of the content of the interventions described in the reports the impression of the research team was that the movement from a pedagogy based upon traditional notions of knowledge transfer and recall to the use of one based on constructivist and social constructivist theories of learning was a central concern for these teachers in the schools within which they were working. The use of ICT was also relatively prominent with seven of the reports relating to the use of new hardware or software as a teaching resource. The implication of these choices is that the application of these approaches to teaching was regarded as innovatory. In many ways the content of the interventions described in the reports correlated with the emphasis in the policy arena on active and independent learning, formative assessment, and the development of core transferable skills.

### *Use of evidence*

In 18 out of the 19 reports the authors had collected and analysed data with the object of detecting pupils' responses to the teaching interventions they had chosen to implement or, in one case, had persuaded others to implement. These 18 reports included samples of this data and made some judgments about the value of the outcomes of the intervention. Many of the reports presented a range of evidence drawn from pupils that related both to changes in knowledge and skills and changes in attitudes and affect in relation to classroom activity. Many of the collaborative accounts also gathered similar data from adult participants. Fifteen of the eighteen projects that concerned

classroom interventions used pre-post data most of which was collected through the use of questionnaires specially prepared for the purposes of the research. This was used to show differences between the state of affairs at the start of the intervention and at the end. Eleven of the reports either used, as part of the discussion of their findings, or included data gathered through the observation of classroom activity (observation schedules, field notes, video or photographic evidence). Pupils' classwork was included in only six of the submissions and it was not analysed in any detail.

In a number of the accounts there was an explicit emphasis on being objective. This seemed to be used as the basis for ruling out observational data (except that captured using a formal schedule) as legitimate. For instance one chartered teacher observed:

One problem of action research is the difficulty in remaining objective when analysing collected data. The researcher's intimate knowledge of their subjects can lead them to understanding fine distinctions and idiosyncrasies which might occur in the data and this might prevent them remaining impartial in their interpretation of the findings. It is vital that any procedures carried out follow strict principles of teacher research. (MP report)

Presumably it was on these grounds that her observations of pupils' reactions to the use of the whiteboard (the introduction of which was the object of her research) were neither analysed nor included in the discussion of her findings. This was one of three cases where data was presented in appendices but excluded from comment in the report. The need to be objective also seemed to serve as a basis for removing the teacher as actor from the report. This in turn meant that, within the sample, critical reflection on the teaching and learning processes involved in the various interventions was largely absent.

The emphasis on a positivistic conceptualisation of research also channelled data gathering into the use of research instruments such as surveys and tests on grounds of generalisability. Again certain forms of evidence that were arguably important in refining teaching practice could be ruled out of court. For example one report included the following observation:

In terms of analyzing pupils' views regarding the script writing and film production tasks, the open-ended questions from both questionnaires provided very illuminating and thought provoking responses. . . . Both questionnaires had two open-ended questions which on reflection were more illuminative in terms of analyzing pupils' views but, as with all open-ended questions, they were more difficult to draw general conclusions from. (MP report)

There was therefore no discussion of these responses and or any explanation of why the chartered teacher had found them "illuminating" and "thought provoking" included in the report.

Data also got ruled out of accounts because they did not fit with the original research questions i.e. things that happened that disrupted earlier assumptions could also be eliminated from consideration. For example

the teacher who had conducted an evaluation of a restorative justice approach to improving pupils' sense of well-being in the playground invited pupils to act as evaluators but they chose instead to conduct their own investigations into aspects of playground activity that interested them. For this teacher it was obvious that this unexpected aspect of her intervention was far more intriguing and challenging of her assumptions than was the investigation of her original research question. She tried to circumvent this 'problem' by including a lengthy appendix describing the pupils' various research projects and she brought some discussion of what she had learned through this turn of events into the section on personal reflection. Rather plaintively she observed:

Engaging in action research requires adopting a systematic and methodological approach. When planning, designing and implementing the research plan, each eventuality requires careful consideration regarding ethics, manageability, suitability and timescale, with enough flexibility to adapt the plan if concerns arise. This has required much self-discipline and effort as my natural instincts veer towards creativity, practicality and reflection in action and spontaneity where my approach is more eclectic than organized. (MP Report)

Overall there was a notable neglect of evidence of learning that is normally available to teachers in the on-going teaching and learning process. In the majority of accounts little use was made of pupils' normal day-to-day work, classroom talk and behaviour (or that of the teacher). What the analysis of the major project texts revealed was that evidence generated during the process of teaching and learning was not presented as relevant to the assessment of impact on learning. Neither observational data recorded during or immediately after classroom events, nor the texts and artefacts produced by pupils, attracted sustained commentary except in one account of work with severely disabled students and in another as an addendum to the main report. The major project reports placed most reliance on measures relating to input and output derived from the use of instruments devised for the purposes of the teachers' activity as researchers.

#### *Accomplished teaching and pupil learning*

There was no direct comment on what constituted accomplished teaching as such in any of the texts. Indeed most accounts made no detailed reference to the author's own professional development, where they did it was because the rubric for the assignment required them to do so. In the twelve reports where there was a comment on the author's learning six consisted of a short paragraph and this was generally concerned with what had been learned about the effectiveness of the particular interventions each had introduced. Comments about the significance of engaging in the research for developing their own understanding of the relationship between teaching and learning were not in evidence. In many cases the chartered teachers made no explicit correlations between their actions and the Standard presumably because such correlations were taken as 'a given'. This was

possibly because on some programmes language from the Standard was incorporated into the assessment criteria.

This absence of direct commentary also applied when we tried to identify how the chartered teachers construed pupil learning and its connection to teaching. In the majority of the reports explicit comments about the connections between teaching and learning were absent.

In general the conceptualisation and design of the work-based research project reports focused upon:

- inputs and outputs as in pre-post tests and surveys and therefore tended to neglect consideration of processes and an examination of teaching and learning activity as such;
- demonstrating that a technique etc. had worked and therefore placing a strong emphasis on making a summative evaluation following a conventional design of research questions followed by answers;
- removing the teacher from the intervention and positioning him or her in the 'outsider within' position as a supposedly neutral observer (Cochran-Smith & Lytle 1993); and
- attending to data specially generated for the purposes of research rather than data generated as part of the educating process in the interactions between teachers, pupils and things.

## **THE FOCUS GROUPS**

### *Impact on pupils' learning*

The focus groups' evidence bore a close resemblance to that given by a sample of 216 chartered teachers in answer to enquiries about teaching practice in an earlier survey (McMahon & Reeves 2007). As before teachers saw the positive changes in their teaching as greater flexibility and responsiveness to pupils, and the development of more rounded and holistic relationships which took greater account of pupils' individuality and attended to their overall development as well as their acquisition of relevant knowledge and skills in relation to curricular content. On this occasion there was a more detailed exploration of the question of effectiveness. Evidence of impact on the learning of pupils for the group participants was clearly related to data arising in the course of interaction in classrooms: body language, answers to questions, behaviour, talk levels and tone etc. There was support for the notion that awareness of, attention to, and interpretation of, pupils' reactions had improved as a result of participation in CT programmes. Participants felt that being engaged in structured reflection, data gathering and analysis, encountering and reading research texts, discussion with others and carrying out action projects had developed their skills and led to a substantive alteration in their perception of what teaching was about. They claimed there had been a change in their classroom interactions which were characterised

by better relationships, driven by a greater interest in pupils as persons, and underpinned by 'listening' to pupils. One participant described how engaging in learning gave him an insight into:

particularly the emotional effects, the emotional life of a learner. Going into group discussions with people I didn't know at all gave me a sense of how mean group work could be on some kids. My experiences sensitized me to what to look out for in group work.

Another asserted:

I'm more and more aware of what I don't know about kids.

Gains in responsiveness to feedback from students were improved by the confidence that these chartered teachers had developed as a result of their participation in the programme. They now felt able to ask pupils what they thought about the way they were teaching and this data, as well as that resulting from improved attention to, and observation of, pupils was perceived as having a significant impact on their practice. Several remarked that they had become more inclusive in their teaching as a result of responding to pupils as individuals and that they were better able to support those who were conceived as having special educational needs as a result. In this there was an issue of trust and security, established by the conduct of the teacher and the nature of the teacher's attitude to their task. The latter was what had most profoundly changed for people. Central to this transformation were changed attitudes to classroom control. One teacher, reporting on the response of a senior management team member to watching her teach, summarised his response in the following terms,

but you've let the control go, when I walk into your classroom, yeah, you're in charge but the kids are doing a lot of the teaching as well as the learning – and it's a process". He sees the results and he's happy with what I'm doing but he also sees it as pretty scary looking at me working because he doesn't see how he could make that jump.

Members of the groups felt that greater safety and trust resulted in improved communication and accuracy in terms of teaching decisions e.g. not wasting time teaching pupils what they already knew, homing in on misconceptions and misconnections and working to correct them which was expressed as an interest in why 'they're not getting it' rather than relying on simple repetition of information.

it is being aware of the way they respond - asking better questions – listening to their answers rather than just ticking off what I want to hear – understanding what mistakes are they making. Listening for the wrong connection – in class we'll go through the thought processes now whereas before I was just telling them. I was teaching but there was not much learning going on. Now they analyse their own methods. They feel safer with me now – they come to my classes on time – little things like that.

Thus what we found was an interesting difference between the kind of evidence used textually by these teachers to present themselves as 'practitioner researchers' in the context of CT programmes and the same teachers' oral reports of what data they used in class to understand the impact of their actions on pupils' learning. This difference pointed to both the positive effects of engaging in practitioner research and the constraints that the participants, both tutors and students, construal of practitioner research and the genre of reporting, put upon where and how attention was placed in gathering and interpreting classroom data (Ratcliffe *et al*, 2005). In particular there appeared to be a loss of focus on the interactional and processual effects of pedagogy (Kress *et al*, 2001) that teachers cited in the discussion groups as central to their day-to-day tracking of the impact of their actions on learning and their decision-making in regard to teaching.

## **DISCUSSION**

The evidence from the major project reports and the focus groups indicates that current formats for practitioner research and enquiry within the context of CT programmes are felt by our sample of participants to support their professional learning (repeating a theme that emerged in earlier studies). Chartered teachers claim that these activities have:

- a. given them a greater awareness of research literature and of learning theory;
- b. enabled them to use more rigorous forms of reflection and improved their analytical skills; and
- c. increased their attention to issues of evidence and pupil learning.

Chartered teachers in the focus groups clearly valued their projects as a basis for developing their teaching although this is a finding that has to be treated with some caution (Spillane 1999) without a more direct link to evidence of classroom practice.

There is however a clear disjunction between the way in which major projects are conceived and reported on CT programmes and what both the literature and the chartered teachers say about evidence of impact on pupils' learning. This contrast lies in the lack of attention to the data used by accomplished teachers to guide their decisions about how to make use of their teaching repertoire as they teach. Evidence about pupil learning that arises in the course of events in the classroom, as a product of the interactive, sequential and relational nature of educating activity tends, on the basis of the evidence of this study, to be ignored or sidelined on the grounds that it is neither objective nor generalisable. Since this is exactly the sort of evidence that is supposed to underpin the development of teacher expertise (Gipps, McCallum & Hargreaves 2000, Berliner 2001, Meyer 2004, Ainley & Luntley 2007 a & b, Hogan & Rabinowitz 2009), this finding suggests the need for a re-orientation with regard to our understanding of the use practitioner research, particularly as a learning strategy intended to enhance the practice of established teachers.

In terms of Noffke's dimensions this is clearly a professional issue but there is an intriguing link here to the political framing of practitioner research since it was greater understanding and attention to pupils as learners and people that members of our sample of chartered teachers claimed increased their empathy and capacity to address issues of underachievement. (It would be interesting to find out whether the use of ethical guidelines also helps, in some instances, to open up new forms of interaction.) If practitioner research is construed as testing what works in raising attainment and is thereby disembedded from the particularities of classroom life for those who participate in it then broader educational questions are likely to remain unexamined as part of day-to-day practice.

Turning to Noffke's third dimension, making chartered teacher status dependent upon qualification presumably reflects a belief that accomplishment in teaching can be learned and an assumption that the primary benefit of engagement in practitioner research on courses such as the CT programme should be supporting the personal, professional learning of participants. In the reporting of major projects that we sampled there was notable lack of attention given to what the chartered teachers learned about themselves and their own approach to teaching through their enquiries. As awareness of professional practice hinges on making sense of both your own actions as a practitioner and those of your students in the course of activity this omission is probably unhelpful. In considering forms of professional enquiry as a vehicle for professional learning arguably the centrality of the teachers' own personal professional development needs to be articulated and valued (McNiff & Whitehead 2002).

The evidence from this study would suggest that it is important, in terms of impact on pupil learning, to re-assert the criticality of the direct relational effects of classroom interactions. It raises questions about whether, in promoting teachers' professional learning beyond the point of entry into the profession, we have paid sufficient attention to what this project entails. The systemic effects of using action research as a basis for teacher certification and the instantiation of professional standards are complex and, we would suggest, require a radical review on the part of those using forms of professional enquiry for these purposes.

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