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Teachers' continuing professional development (CPD): contested concepts, understandings and models

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Abstract

Teachers' continuing professional development (CPD) is being given increasing importance in countries throughout the world. In Scotland, the changing professional and political context has resulted in unprecedented investment in CPD. However, analysis and evaluation of CPD policies, practice and impact is complex. In seeking to understand some of the complexities, this article proposes a triple-lens framework, drawing on three different accounts of teacher learning. The framework is then used to analyse three specific examples of CPD initiatives. Conclusions point to the need to consider a much wider conception of teacher learning in which socio-cultural aspects are given due attention.

Introduction

This article explores the idea of teachers as learners by synthesising a range of accounts of teacher learning and the process of continuing professional development (CPD): a

theme which is central to the work of the ‘Teachers as Learners’ project within the Applied Educational Research Scheme (AERS) [1]. AERS aims to enhance research capability in education in Scottish higher education institutions, and to use that capability to conduct high-quality research which will benefit Scottish education. The focus of the article is driven by the changing professional context for teachers in Scotland; a context that reflects international trends. The article seeks to evaluate some existing models of CPD and teacher learning as a basis for establishing a clear framework within which CPD and teacher learning can be analysed and evaluated systematically.

The article begins with an outline of the professional and political contexts within which CPD policy is developing before examining how the concept of professionalism impacts on CPD developments. There follows an exploration of teacher learning and development in which a framework of three ‘lenses’ is proposed as a means of interrogating CPD models. These lenses are then exemplified through the examination of three specific CPD initiatives. The article concludes by discussing the implications of this framework for the evaluation of CPD and teacher learning opportunities, and for empirical work in this field.

The Professional and Political Context

With the inception of the Scottish Parliament in 1999, education became a devolved function; this was followed in July 2000 by the first Bill to pass through the new Scottish Parliament, the Standards in Scotland’s Schools etc. Act (2000). While this Act made reference to teachers’ professional development through the increased powers granted to the General Teaching Council for Scotland (GTCs), it was the McCrone inquiry (the Independent Committee of Inquiry into Professional Conditions of Service for Teachers) and the resulting agreement which have had most impact on this area.

The McCrone enquiry was set up as a result of a stand-off in negotiations between teachers and employers, and pay and conditions formed the major part of negotiations. Key aspects of the McCrone Agreement include: a significant phased salary increase (23% over three years); a simplified career and salary structure; and formalisation of

entitlement to non-class contact time across all sectors. However, one strand of the McCrone Agreement (SEED, 2001) also addressed issues under the heading, 'professional development'. This included the recognition of continuing professional development (CPD) as a professional entitlement, with 35 hours of CPD per annum built into teachers' contracts, and the expectation that every teacher would maintain a professional development portfolio (see Purdon, 2003 for further discussion). A framework for professional development based on a progressive series of professional standards was launched as were new arrangements for probation and induction. The introduction of the status of Chartered Teacher heralded a new opportunity for teachers to seek promotion with significantly enhanced salary and professional status while remaining in the classroom rather than having to move into a school management role.

International perspectives

The increased focus on CPD in Scotland is not unique, however, and the importance of in-service education and continuing professional development for the teaching profession is increasingly acknowledged in countries throughout the world. Coolahan (2002), in a working paper commissioned by OECD, locates this trend within the wider policy agenda of lifelong learning and identifies certain desirable characteristics associated with successful in-service provision, as follows:

- it should incorporate both on and off-site school dimensions;
- teachers should have a greater role in setting the agenda and being actively engaged in an experiential process;
- in many countries, through training of trainers' courses, teachers have been assisted to work with their peers as facilitators and team leaders. This gives rise to a sense of empowerment and confidence building which cultivates a good *esprit de corps*; and
- collaborative, interactional techniques are very much in favour, rather than lectures to large groups (Coolahan, 2002, p. 27).

According to Coolahan (2002), it is also recognised internationally that teacher development is often best promoted within the context of school development,

with more and more schools being encouraged to engage in collaborative development planning. While this view tends to emphasise the interests of the education system, this need not be to the exclusion of the personal and individual needs of teachers. Coolahan (2002) contrasts the “top-down” approach of traditional models of inservice education with what is described by OECD (1999) as a “bottom-across” approach whereby teachers in clusters of schools may collaborate on professional learning and development activities.

Clearly, CPD policy in Scotland and the ideological agendas which underpin it do not exist in a vacuum. Indeed, there is acknowledgement that conceptions of teaching and teachers are influenced heavily by global agendas. Porter (1998) argues that there is an increased focus on schooling as a means of increasing economic prosperity in a globally competitive workplace, a development which Smyth et al (2000) argue has led to an increase in managerial professionalism, where business approaches are adopted. Wolf (2002) adds to this argument suggesting that not only is there no moral or ethical rationale for the adoption of a business model in education, but that there is also no evidence to support the claim that business knows best what the education system should provide. She highlights the extensive role played by the Confederation of British Industry (CBI) in the development of UK education policy, and asks the question ‘why have the representatives [the CBI] of what is essentially a lobbying organization for big businesses been so active in education policy...?’ (*ibid.*, p. 127). Despite the existence of such views, the business model appears to be an accepted principle on which to base education. Apple (1996) supports the notion that this is neither accidental nor neutral, claiming that ‘the institutionalisation of efficiency as a dominant bureaucratic norm is not a neutral, technical matter. It is, profoundly, an instance of cultural power relations’ (p. 54).

Teachers’ professional learning and development

Research suggests that professional development is an essential part of improving school performance (Hargreaves, 1994; Bolam, 2002); the problem is that according to Coffield

(2000, p. 3) the discourse about professional development is typified by ‘conceptual vagueness’. Friedman and Philips (2004), for example, argue that professional development is an ambiguous and contested concept, whereas Hoban (2002) draws a distinction between professional learning and professional development. □ To illustrate the range of meanings ascribed within a broader professional context, Friedman et al (2000, cited in Friedman and Phillips, 2004, p. 362) list a number of competing claims for professional development that are evident in the promotional literature of UK professional associations:

- lifelong learning for professionals;
- a means of personal development;
- a means for individual professionals to ensure a measure of control and security in the often precarious modern workplace;
- a means of assuring a wary public that professionals are indeed up-to-date, given the rapid pace of technological advancement;
- a means whereby professional associations can verify that the standards of their professionals are being upheld; and
- a means for employers to garner a competent, adaptable workforce.

Friedman and Philips (2004, p. 369) indicate that legitimacy of professional development activities is often perceived of in terms of formal training courses linked to work or gaining a qualification – portable and bankable. However, an emerging paradigm is one that moves professional development away from the practice of attending courses and training days to the concept of lifelong or continuing learning. Middlewood et al (2005) in their examination of the educational context, argue that:

- professional development is an ongoing process of reflection and review that articulates with development planning that meets corporate, departmental and individual needs; and

- learning is a process of self development leading to personal growth as well as development of skills and knowledge that facilitates the education of young people.

This particular distinction is perhaps an illustration of the kind of conceptual vagueness described by Coffield (2000). The use of the term ‘development’ rather than ‘learning’ seems to depend on a somewhat arbitrary attribution of a broader, more general meaning to professional development and a more specific individual meaning to professional learning. Confusion may also arise from the use of the term ‘professional development’ to apply both to the development of individual professional practitioners and collectively to the development of the profession as a whole or of groups within the profession. There is an additional concern about the explicit and implicit emphasis on performativity, more evident perhaps in the first of the two above meanings, in that it may limit the focus of professional learning and development activities to improvements in teachers’ skills as a means of bringing about improvements in standards for schools (e.g. Day, 1999). There are strong arguments in favour of a much broader, intrinsic and ethical purpose for teachers’ professional learning and development (Day, 1999) and for emotional and social as well as intellectual and practical engagement in the processes of change entailed (Day, 2004).

The present article examines existing models of professional learning and development and attempts to develop a clearer understanding of these concepts. It is, therefore, important to try to clarify the distinction between the two concepts. With this in mind, it is suggested that teachers’ professional learning can be taken to represent the processes, whether intuitive or deliberate, individual or social, that result in specific changes in the professional knowledge, skills, attitudes, beliefs or actions of teachers. Teachers’ professional development, on the other hand, is taken to refer to the broader changes that may take place over a longer period of time resulting in qualitative shifts in aspects of teachers’ professionalism.

Teacher Change

It can be argued that further clarification needs to be made, namely, to locate both professional learning and professional development within the more general concept of ‘teacher change’. Richardson and Placier (2001) suggest that teacher change can be described in terms of learning, development, socialisation, growth, improvement, implementation of something new or different, cognitive and affective change and self-study. Forms of CPD and professional learning may, therefore, be better understood as manifestations of particular change strategies. The “empirical-rational” strategy for change is concerned mainly with fostering a conventional knowledge transfer process, while a “normative-reeducative” change strategy would tend to be more naturalistic and integrated into the authentic, ongoing, professional activities of teachers, effected by enabling teachers to exercise more autonomy and agency and through cultivating their professional growth (Richardson and Placier, 2001).

Clarke and Hollingsworth (2002) elaborate a model of teachers’ professional growth (note: yet another term!) which attempts to elucidate the complex “change environment” and the “continuing process of learning” (p. 967) through which teachers grow professionally. The concept of ‘growth’ invoked here closely resembles the way in which the term ‘development’ is conventionally used in psychology. According to Clarke and Hollingsworth (2002), the key change processes in the professional context are “enactment” and “reflection” (p. 951). The term enactment is preferred here to ‘action’, since it refers to the translation of the teacher’s knowledge or beliefs into action rather than simply the professional action itself. Therefore, it could be argued that professional change is best understood as coming about through a process of learning which can be described in terms of transactions between teachers’ knowledge, experience and beliefs on the one hand and their professional actions on the other.

Lenses for examining CPD

Given the complexities of professional development, professional learning and professional change as discussed above, it is argued that any evaluation or interrogation of CPD programmes and models needs to be able to take into account the range of

complex factors impacting on CPD. We therefore suggest a composite framework drawing on three different ways of understanding CPD:

1. Bell and Gilbert's three aspects of professional learning (amended)
2. Kennedy's framework for analysing models of CPD
3. Reid's quadrants of teacher learning

The significance of using these three different lenses through which to examine different examples of CPD, is that the combined insight that can be gained is much more relevant, significant and important than using any one of these frameworks alone.

Bell and Gilbert's Aspects of Professional Learning

Teachers' professional learning can be thought of as comprising personal, social and occupational aspects which are inter-related (Bell and Gilbert 1996; Clarke and Hollingsworth 2002). Bell and Gilbert (1996) suggest that the impetus for change originates within the personal aspect of professional learning. Thereafter, development within the personal aspect can be encouraged or restrained by a range of factors. Attitudes to professional learning have been found to vary across school sectors and subject areas (Wellcome Trust, 2006). These attitudes are informed partly by prior experiences of professional experiences. The motivating effect of interest and 'ownership' of the learning opportunity have been noted as significant (Bell and Gilbert, 1996; Institute for Learning Innovation, 2002). Teacher choice and control in determining engagement with learning opportunities was found to be important both in England (Dillon et al, 2000) and Scotland (Institute for Science Education in Scotland, 2005). Opportunities for differentiation to account for prior knowledge, experience and expertise was also considered important (Clarke and Hollingsworth, 2002; Institute for Learning Innovation, 2002; Lovett and Gilmore, 2003). These factors may relate to attitudes, beliefs and values which contribute to teachers' professional identity and play an important part in determining self-efficacy which, in turn, contributes to teacher confidence.

In addition there are social aspects which support personal learning: learning isolation is seen as ‘problematic’ (Bell and Gilbert, 1996). Communities of practice are advocated as one way forward in this regard (Lave and Wenger, 1991); members of the community are mutually engaged in a common enterprise, they build up a shared repertoire of communal resources and have a social dimension. Schools are potential communities of practice both for teachers and pupils, whereby opportunities for collaboration with colleagues exist and where interpreting information and making meaning can result in mediation of new knowledge within the community (Falk and Dierking, 2000). Working within a community reinforces shared beliefs and can contribute to the reconstruction of personal and professional identities (Bell and Gilbert, 1996, Solomon and Tresman, 1999). Powerful, socially mediated learning also occurs with other people perceived to be knowledgeable; e.g. facilitators or more experienced colleagues (Falk and Dierking, 2000). However, the tensions between ‘what it means to be a learner within a particular learning context’ and ‘what it means to be a teacher within a particular school context’ (Bell and Gilbert, 1996) need to be resolved in order for teachers’ learning to be enacted as new developments. This requires support not only from colleagues, but also from school management. In addition to being communities of practice and learning, schools are situated within a geographical and social context – what might be termed the ‘wider community’ – where socio-cultural expectations will also influence the enactment of teachers’ learning (Evans, 2002; Falk and Dierking, 2000).

Development of occupational aspects of teacher learning involves interplay between theory and practice. Crucial to this process is an acceptance of theory which occurs most readily if the theory is based on credible, empirical evidence grounded in practice. School and classroom provide rich environments for teachers to enact emerging learning within their own context (Reeves and Forde, 2004). This ‘professional experimentation’ (Clarke and Hollingsworth, 2002) raises awareness of learning actions and consequences. Making sense of practical experiences, particularly those with positive outcomes, can lead to conceptual change and acceptance of theory (Bell and Gilbert, 1996; Clarke and Hollingsworth, 2002). The process is ongoing and iterative.

To summarise, the following conditions are deemed important under each of the three aspects:

- personal
 - teachers beliefs, values and attitudes are important considerations
 - interest and motivation need to be addressed
- social
 - relationships between individuals and groups need nurturing
 - contexts need to be supportive to allow enactment and risk taking
- occupational
 - links between theory and practice need to be strong
 - intellectual stimulation and professional relevance are required.

It is important to recognise that delivery ‘style’ and opportunity ‘type’ attend to these aspects in different ways and to varying extents. This is explored further through the examples discussed in the next section.

Kennedy’s Framework for Analysis of CPD Models

If the purpose of professional learning is attitudinal development, that is changes in intellectual and motivational aspects as well as functional development (Evans, 2002), then we must consider how this might be facilitated. Kennedy’s (2005) analytical framework suggests that professional learning opportunities can be located along a continuum where the underpinning purposes of particular models of CPD can be categorised as ‘transmissive’, ‘transitional’ or ‘transformative’. Models of CPD where the purpose is deemed to be transmissive rely on teacher development through externally delivered, ‘expert’ tuition (Sprinthall, 1996), focusing on technical aspects of the job rather than issues relating to values, beliefs and attitudes. This type of CPD does not support professional autonomy, rather it supports replication and, arguably, compliance. Within the transitional models, CPD has the capacity to support either a transmissive agenda or a transformative agenda, depending on its form and philosophy. Models which

fit under this category include coaching/mentoring and communities of practice. At the other end of the spectrum, transformative professional learning suggests strong links between theory and practice (Sprinthall, 1996); internalisation of concepts; reflection; construction of new knowledge and its application in different situations; and an awareness of the professional and political context. Transformative models of CPD have the capacity to support considerable professional autonomy at both individual and profession-wide levels.

Reid's Quadrants of Teacher Learning

Clearly, different professional learning experiences offer varying opportunities for attitudinal development. We propose analysis of professional learning opportunities according to Reid's quadrants, comprising two dimensions: formal-informal and planned-incident (McKinney et al, 2005). Formal opportunities are those explicitly established by an agent other than the teacher, for example taught courses, whereas informal opportunities are sought and established by the teacher, for example, networking. On the other axis, planned opportunities may be formal or informal, but are characteristically pre-arranged, for example collaborative planning, whereas incidental opportunities are spontaneous and unpredictable, for example, teacher exchanges over coffee. These descriptions represent polarised positions that encompass the range of learning opportunities encountered by teachers. The quadrants can be exemplified as follows:

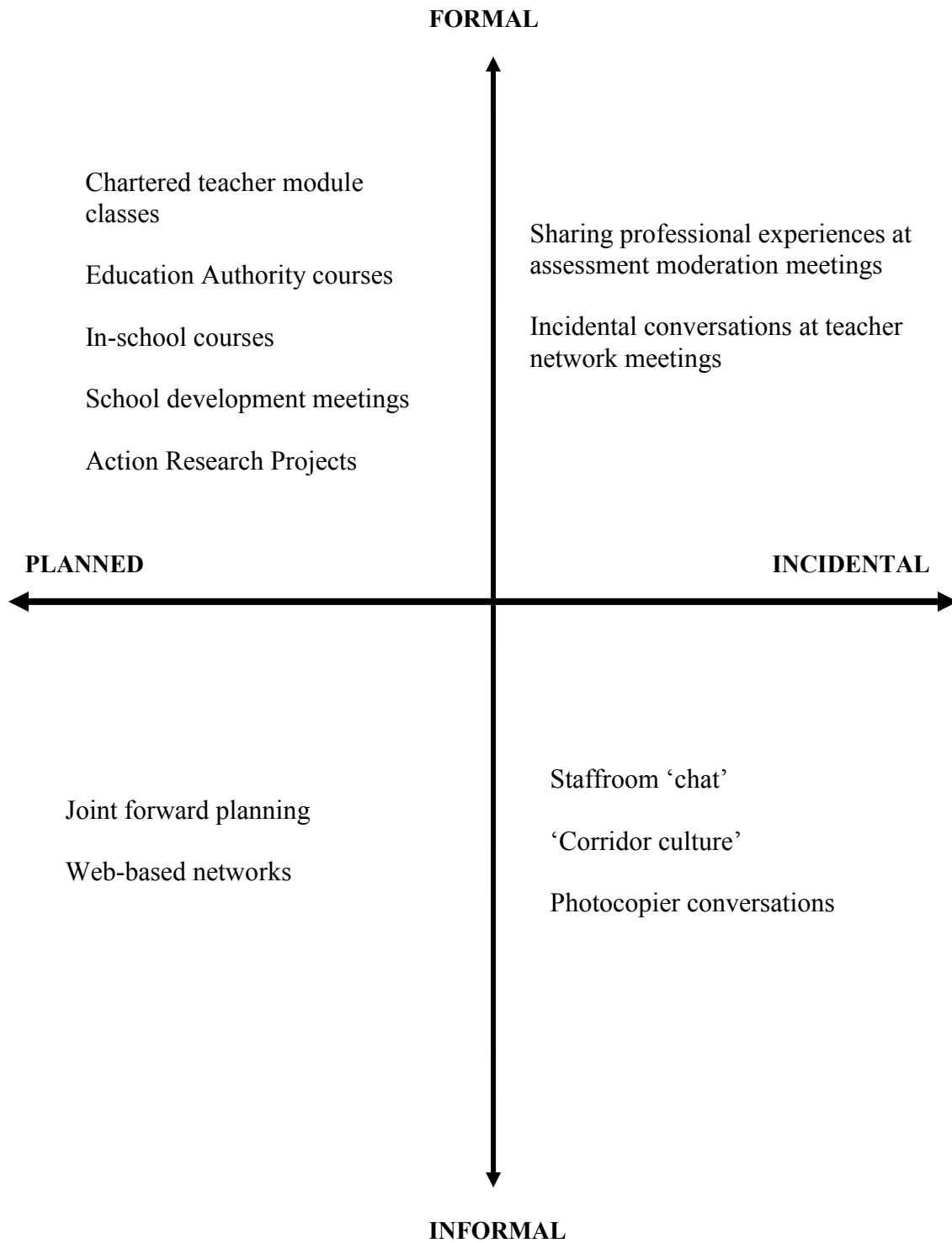


Fig. 1 Reid's quadrants of teacher learning

Using the Three Conceptual Frameworks as Lenses to Examine CPD

The following is offered as a way of summarising the ‘distinctiveness’ of each of the frameworks discussed above:

Framework	Terms of categorisation	What is being categorised?
1. Bell and Gilbert’s three aspects of professional learning (amended)	Personal/social/ occupational	Domain of influence of professional learning
2. Kennedy’s framework for analysing CPD	Transmission/transitional/ transformation	Capacity for professional autonomy and transformative practice supported by the professional learning
3. Reid’s quadrants of teacher learning	Formal/informal Planned/incidental	Sphere of action in which the professional learning takes place

Table 1 Summary of frameworks

It is therefore suggested that the aspects of professional learning that are being analysed under each framework are:

- the domain of influence: where the impact of the professional learning is felt on an individual basis
- the capacity for professional autonomy and transformative practice: the potential impact of the professional learning on both individual and profession-wide bases
- the sphere of action: where/how the professional learning takes place

One of the key reasons for viewing models of professional learning through different lenses is that the impact of professional learning, both positive and negative, cannot be felt or seen in a vacuum. Exploring the site of learning and the individual and profession wide impact allows us to look at individual examples in a much more comprehensive and complex manner. It illuminates the temporal and qualitative differences discussed earlier in relation to teacher learning and professional development.

The following section considers three specific examples of CPD initiatives using the above framework as a conceptual guide.

Examples of recent CPD programmes in action

For the purposes of this review, three examples of recent CPD programmes have been selected to exemplify and illuminate the issues discussed so far. Two of these examples relate to CPD initiatives in specific subject disciplines (Literacy and Science); the other to generic CPD in Assessment.

The National Literacy Strategy

The National Literacy Strategy in England was established in 1998 with the express purpose of raising standards in literacy in primary schools.

A transmissive model of CPD was evident in the discourse of Blunkett, the then Minister for Education, who described it at that time as ‘training in the best methods of teaching literacy’ (www.dfes.gov.uk/primary/publications/literacy). A prescriptive framework for teaching in the new ‘literacy hour’ which outlined both content and methodology to be adopted was imposed upon all primary schools in England. Expert ‘literacy consultants’ were appointed to all local education authorities (LEAs) to manage and administer implementation of the strategy. Premised on a ‘deficit’ model of teacher development (Beard, 1999), training was seen as essential for all primary teachers, regardless of experience or expertise. The strategy was described as ‘delivering’ literacy improvement

in a culture of accountability, linked to ‘high stakes’ national testing and school inspections.

Seven years later, the ‘effectiveness’ of the strategy was measured by pupil attainment gains. While government reports asserted its success in raising standards, the discourse of teachers’ professional organisations painted a different picture. These rejected the cognitively driven perspective espoused by the National Literacy Strategy and re-asserted teachers’ rights to adopt, as a matter of choice, a more socio-cultural philosophical base for their teaching (www.ite.org.uk). Thus, although the transmissive model of CPD adopted by central government (which depended on formal, planned learning opportunities) was successful in terms of pupil attainment gains, it seems to have been less successful in terms of teacher change and development.

Although it addressed occupational aspects of subject knowledge and pedagogical knowledge and skills, it can be seen as neglecting the personal and social aspects with the resultant lack of transformative teacher professional learning. The neglect in the personal dimension of the importance of teachers’ subject ‘philosophy’ may have been particularly significant in a curricular domain which can be seen as heavily dependent on beliefs, values and attitudes (Marshall, 2000). The lack of ownership engendered by the blanket approach to staff training which was imposed on schools may also have contributed to teacher disaffection. Although the whole-school nature of the strategy can be seen as socially supportive for teachers, the lack of opportunity for risk taking was not.

Cognitive Acceleration in Science Education

By 1990, there was sufficient evidence from pilot projects to support the view that Cognitive Acceleration in Science Education (CASE) intervention in Years 7 and 8 (in England and Wales) resulted in improved grades at GCSE (Adey, 2004). This led to demands from schools for CASE training for teachers which resulted in a two-year CPD programme. Building on Adey’s extensive experience of CPD within the UK and abroad, CASE CPD was designed for whole science department involvement, with group ethos and community perceived as important features. It included more centre-based

sessions initially and moved to in-school coaching as the CPD programme progressed. It might therefore be considered as having moved from an initially transmissive mode to a more transitional mode of delivery (Kennedy, 2005). Links between theory and practice, organisation and management and technical elements were addressed within the design, although the programme still appears to be located primarily within the formal/planned quadrant of teacher learning (McKinney et al, 2005).

Adey's proposed model for professional development, derived from empirical evaluation of CASE implementation, built on three theoretical strands: first, the application of general theories of conceptual or attitudinal change to the beliefs and behaviours of teachers (Bell and Gilbert, 1996; Joyce and Showers, 1995); second, the notion of the reflective practitioner (Schön, 1991); and third, the literature which characterises teachers' procedural knowledge as intuitive (Brown and Coles, 2000). Adey's model identified the characteristics of effective CPD as: value congruence; some measure of teacher ownership; coaching and peer support; access to 'expert' help; and clear links between theory and existing knowledge. Additionally, the time to reflect and discuss changes to practice was also thought to be important (Adey, 2004). Clearly, CASE CPD attended to occupational aspects of teachers' professional learning. However, the transformational aspirations, and elements of transitional delivery did not result in uniform success. In evaluations of the project, Landau (in Adey, 2004) noted that real change was a slow process requiring continued input from in-service and in-class coaching before change became part of the teachers' natural pedagogy. The importance of a supportive context and the role of leadership were deemed crucial to the success of CASE. Similarly, Hewitt's evaluation (in Adey, 2004) recognised human fallibility within the overall success of the programme, namely making time for tasks, for example, peer visits and reflective journals. This might indicate a mismatch between design intentions to support personal and social aspects of teachers' learning and implementation within the practical programme.

Similarly, despite acknowledging the importance of intuition, Adey still retained belief in measurable outcome variables as a way of evaluating CPD. These outcome variables

were defined as changed pedagogical practice and changes in student attainment, behaviour or motivation. There seems to be a lack of congruence between the notion of pedagogical skill as internal and intuitive and the idea of ‘measuring’ its success or effectiveness by external means.

CPD related to Formative Assessment

A number of developments related to formative assessment in recent years have stretched the boundaries of traditional understandings of the purpose of teachers’ CPD. Not only do these projects extend into informal contexts, but they also position CPD activities as potentially knowledge generating for the wider educational community.

Torrance and Pryor (1998) used the relationship between higher education institute (HEI) researcher and school practitioner during a research project to address the theory/practice divide. As part of a mentored action research project which investigated teacher assessment in infant classrooms, teachers were presented with a theoretical model (or cognitive resource) to help them interrogate their existing assessment practices. Essentially, teachers were encouraged to draw upon a theoretical base and use it opportunistically with an open, flexible disposition during teaching, as contingent circumstances allowed. Thus the intervention began with formal, planned learning opportunities, but was structured specifically to allow the development of more informal learning. Interestingly, this study combines many of the elements of successful professional learning opportunities (e.g. Adey, 2004; Cordingley et al, 2003) and supports Adey’s (2004) conclusions about the nature, intensity and management of CPD interventions.

Black et al (2003) suggest that CPD within the context of formative assessment has the potential to generate new knowledge. This idea has been explored in one project within the Scottish Assessment is for Learning (AiFL) programme (Hayward et al, 2004), which consciously strove to use teacher engagement in action research as a vehicle not only for individual teacher development, but also as a means for national policy development. Building on the community action research approach in work on transformational change

(Senge and Scharmer, 2001), it addresses the issue that even where policy and research are congruent with teachers' aims (Adey, 2004) it may still not 'work' in classrooms. Hayward et al (2004) claim the lack of instrumentality might arise because of the sheer difficulty of operationalising change within the classroom.

In the Scottish project discussed above, the theoretical base (research ideas) was presented to teachers who were then invited to 'explore' how those ideas might be 'translated' into their classroom practice. The approach acknowledged different starting points for different teachers, allowed at least some degree of ownership of direction; and indeed of rethinking relationships between research, policy and practice communities. Analysis of the project results indicated that teacher empathy with project aims and teacher motivation to engage with ideas through reading and discussion were fundamental for transformational teacher learning.

Within the Scottish AiFL programme, alternative routes to transformative teacher learning have been sought. As the programme developed, it shaped itself around three distinct ideas: assessment for learning; assessment as learning and assessment of learning. In relation to summative assessment issues (assessment of learning), efforts focused on promoting local moderation of assessment as a means of professional learning. Classroom teachers were urged to use informal opportunities to talk about samples of children's work as a means of agreeing common understandings about attainment in relation to national standards. This was supported and enhanced by exemplars of pupils' work in various curricular areas included in the website 'toolkit' which disseminated the funded work of teachers engaged on all aspects of AiFL. While larger more formal moderation sessions were not discouraged, equal recognition was given to the potential benefits of smaller scale, more informal events. Little evidence is available yet, of the effectiveness of these sessions as professional learning opportunities. However, their inclusion within a national policy framework is significant.

The experiences of teachers in the AiFL programme mirrors that of CASE teachers and indicates that transformative learning was facilitated when formal, planned learning

opportunities were augmented by more informal, incidental learning opportunities. Conversely, where informal learning opportunities were inhibited, by lack of managerial support or other contextual restraints, then teacher professional learning was located towards the transmissive end of Kennedy's continuum.

Bringing the Case Studies Together

The examples of CPD related to formative assessment range from Kennedy's (2005) transmissive zone, across the transitional divide and into the transformative zone. Earlier examples (Torrance and Pryor, 1998) stagger chronologically formal planned and informal planned opportunities (McKinney et al, 2005) while later examples (AiFL) place increasing emphasis on informal planned opportunities.

From the examples of recent CPD programmes analysed above, the following tentative suggestions are made:

- formal planned opportunities, which are essentially transmissive, are unlikely to result in transformative professional learning for teachers, because they attend primarily to occupational aspects of professional learning;
- inclusion of formal and informal planned opportunities is more likely to result in transformational learning because they attend to some facets of personal and social, as well as occupational aspects of professional learning. However, mismatches between design intention and practical implementation may limit attention to personal and social aspects and hence the degree of transformational learning;
- opportunities that allow greater ownership and control of the process are likely to attend to more facets of the personal and social aspects of learning and are therefore more likely to result in transformational professional learning for teachers; and
- the nature, extent and role of informal incidental opportunities in teachers' professional learning is currently under-researched and therefore remains unclear.

Discussion

The current political and professional context in Scotland has created an opportunity to evaluate not only existing models of continuing professional development but also the more fundamental issues of teacher learning and change. In this article, the foregrounding of the importance of individual teacher agency and engagement challenges the dominant globalised agenda of managerial professionalism and institutionalised efficiency. Models of education which rely on notions of business efficiency are therefore seen as limited in scope and over-bureaucratic. In their place, more democratic models are promoted, which foster teacher self-efficacy through critical collaboration and acknowledge the importance of an ethical dimension of teacher professionalism. While recognising the complexity of the professional context, it is suggested that adopting this perspective may help resolve the tensions which emerged from the review of existing literature about the purpose of CPD activities. Importantly, key tensions include the position of teachers as both professionals and public servants and the potential conflict between individual and collective interests.

The reification of ‘delivered’ professional development activities as the structural components of a politically established framework of professional ‘standards’ is called into question. A socio-cultural interpretation of teacher learning and change is offered as an alternative; one which relies upon the assumption of individual teacher autonomy within an environment characterised by collaborative, collective decision making. However, the current statements of professional standards in Scotland (SEED, 2002) can be seen as codifying a view of teacher professionalism that transcends ‘business efficiency’ models. Within this structure, the role of the professional teacher is extended beyond the traditional teacher/pupil transfer of knowledge, skills and attitudes. The statutory recognition of the importance of professional reflection and communication alongside professional values and personal commitment has shifted understandings of teacher professionalism. In order to meet the demands of this extended role, teachers are necessarily and constructively engaged in the process of continuously renegotiating

professional meaning. What is emerging in Scotland is a potentially rich and varied landscape for teachers' professional development. The challenge for Scottish teachers is to use the opportunities and the flexibility afforded by current policy to continue to promote a distinctive interpretation of professionalism that allows for individual teacher growth and also improves the quality of educational experiences. It is, therefore, suggested that the necessary renegotiation of professional meanings is both an individual and a social process which is enacted in a variety of culturally defined contexts.

This article has explored the nature of some of those contexts and expanded understandings of what might be understood by professional learning opportunities for teachers. In so doing, it offers an alternative to measuring the 'effectiveness' of CPD through pupil learning gains. This consideration of existing models and understandings of CPD suggests that approaches which are based on collaborative enquiry and that support teachers in reconstructing their own knowledge are most likely to lead to transformative change. The perspective gained by using the proposed lenses may resolve some of the potential conflicts between the 'collective good' of the school and an individual teacher's aspirations in engaging in CPD activities. It may also allow the wider purposes of the education system to be satisfied.

The arguments presented here set the context for empirical work which will review existing opportunities for teacher learning and development in Scotland and allow teachers to voice their perceptions about professional change and growth. The empirical work will be conducted during a period of curricular change in Scotland (SEED, 2004), which aims, in its implementation, to build on these emerging understandings of teacher learning and development. Opportunities exist for the personal, social and occupational dimensions of teacher learning to be accommodated. Those opportunities may occur in spheres of action that have not been traditionally valued as likely sites for teacher learning. We suggest that the value of these sites should be acknowledged alongside more traditionally structured CPD opportunities. Using the triple-lens framework as a tool to analyse and evaluate CPD helped to illuminate contentious issues. The empirical work which is to follow will provide opportunities to refine this analytical framework.

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