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A new paradigm war? The impact of national curriculum policies on early childhood teachers' thinking and classroom practice

Elizabeth Wood*

University of Exeter, School of Education and Lifelong Learning, Hewanree Road, Exeter EX1 2LU, UK

Abstract

This paper identifies a new paradigm war, which has emerged from national policy frameworks in education. In England, policy frameworks in the early childhood phase (age 3–7) have created tensions and dilemmas for teachers as they strive to reconcile their professional knowledge with increasingly prescriptive frameworks. Unintended negative consequences have arisen as an outcome of the 'high pressure–high support' policy levers that have operated, particularly in literacy and numeracy, as part of the government's agenda to drive up standards and improve teacher effectiveness. However, the studies reviewed here reveal the processes of creative mediation, adaptation and resistance that teachers utilise, based on their professional knowledge and expertise. The paper tracks three key themes: what happened to teaching; what happened to research on teaching; and what are the future prospects for research and scholarship in the field.

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1. Introduction

Gage (1989) identified 1989 as the year in which his satirical construction of the old "Paradigm Wars" came to a sanguinary climax, thus opening up new possibilities for educational and social enquiry. A decade later, Anderson and Herr (1999) outlined new paradigm wars, in which some of these possibilities were being realised through more rigorous forms of practitioner research, which did not fit easily into Gage's three paradigms, and, moreover, challenged established academic and institutional gatekeepers of metho-

dological and epistemological stances. It is argued here that further challenges to academic research and educational practice have emerged from a new policy paradigm in education. Gage noted (p. 144) that, post-1989, *educators* wanted to know as much as possible about the relationship between different ways of teaching, and different levels of students' achievement and attitude. At the same time, *politicians* in the United Kingdom and elsewhere became increasingly interested in this relationship, and increasingly interventionist in their political aspirations for educational and social change. This gave rise to a radical modernising agenda, which sought to impose a 'command and control' model of change, and introduced notions of 'performativity' in teaching

*Tel.: +44-1392-264753; fax: +44-1392-264792.

E-mail address: e.a.wood@ex.ac.uk (E. Wood).

and learning (Ball, 1999). This agenda contrasted with emerging post-modern discourses which sought to deconstruct notions of power relations, and the ways in which these are understood, negotiated and mediated (Constas, 1998).

In England, this agenda centred on the statutory implementation of national curriculum policies in primary and secondary schools, and subsequently in pre-school settings, focusing on curriculum, pedagogy and assessment. It is argued here that this shift can be seen as a new paradigm war, which extended the battleground from the ivory towers of academia, to the heart of teachers' and children's lives. The antagonists were initially right-wing policy makers, with the support of protagonists in the academic community whose messages fitted with the political and economic zeitgeist, and the increasingly positivist assumptions that underpinned educational reforms. Policy discourses generated from within the government's school inspection framework short-circuited academic research and created an anti-research culture, which provided further ammunition against academics and teachers. As this paper will argue, counter-insurgents from within the teaching and research communities marshalled new forms of educational and social enquiry, and generated new evidence bases to contest policy texts, discourses and strategies.

In order to re-visit what happened to research on teaching in the last 15 years, we need to understand what happened to teaching, or more broadly, to pedagogy, curriculum and assessment, within this new policy paradigm. The main focus here is on early childhood education in England, specifically on the pre-school phase (age 3–5), and Key Stage 1 (age 5–7). The pre-school phase became a key target for policy changes because of the diversity of provision, differences in the quality of provision, in learning outcomes for children, and in their subsequent achievements in statutory schooling. This phase was also a vulnerable target because, until recently, it was relatively under-researched in comparison to later stages of schooling. In addition, early childhood education has been underpinned by an eclectic theoretical and ideological base, which has traditionally been strong on ideals and aspirations, but

weaker on empirical evidence about teaching and learning.

The paper focuses on three key questions: what happened to teaching; what happened to research on teaching; and what are current and future trends? The first section describes the diversity of provision in the pre-school phase, the broad context of educational policies, and their impact on pedagogy, curriculum and assessment. The second section reviews key trends in research on teachers' thinking and classroom practice, with specific reference to the impact of national curriculum policies. The third section combines a retrospective and prospective view, and examines new approaches to research in early childhood, which combine methods and transcend established paradigmatic boundaries.

2. What happened to teaching? Diversity and change in pre-school education

The pre-school phase is characterised by diversity in provision and services. The main sectors include maintained (government funded) nursery schools and classes; reception classes in maintained primary schools; private schools and day nurseries; home- and community-based playgroups; local authority day nurseries; family centres and childminders. Young children typically experience different types of provision with varying orientations, and attend for different periods of time. The diversity and quality of pre-school provision have received much attention: a report by the Audit Commission identified unevenness of provision, access, effectiveness, quality and costs in the different sectors (1996, p. 30). Historically, there has been a schism between settings that were oriented towards 'education' and 'care'. However, a contemporary consensus has emerged on the concept of 'educare', which combines both elements. The statutory age of starting school in England is the term in which the child becomes 5 years old; however, gradual changes in admissions policies have led to some Local Education Authorities operating a single admission point in September. Over 80% of four 4-year-old children begin full-time education in Reception classes in

primary schools, and the average age of starting school has shifted from 'rising five' to 'just turned four'. The quality of educational experiences for young children in Reception classes has been consistently criticised because of over-formalisation of pedagogy and curriculum, and lack of continuity with the more informal, play-based approaches used in nursery settings (Bennett, Wood, & Rogers, 1997).

The extension of government policies to the pre-school phase was informed by a range of social, economic and educational factors which were operating at national and international levels. There were international trends towards structuring pre-school curricula, and improving provision and services for children and their families, particularly those experiencing social and economic disadvantages. Research findings, particularly in the United States of America, linked high quality pre-school education with positive social, educational and economic outcomes from childhood through to adulthood (Schweinhardt & Weikart, 1993). 'High quality' was identified with pre-school programmes that included family and home intervention and support, and provided a 'cognitively oriented' curriculum. Sylva (1994) also highlighted the positive social and emotional outcomes of high-quality provision, and questioned trends towards the early acquisition of formal 'school' skills. She argued that the most lasting contribution of early education to children's development is the way it shapes motivation, self-concept and social commitment.

This intensified focus on quality, standards and effectiveness raised questions about the impact of provision on children's subsequent progress and attainment, as evidenced in research studies that showed differential levels of achievement on entry to school, and different trajectories of achievement (Osborn & Millbank, 1987; Tizard, Blatchford, Burke, Farquhar, & Plewis, 1988). Research on early literacy and numeracy (Aubrey, 1997; Munn, 1995) also found wide variations in young children's learning achievements on school entry, which affected their orientation to school-based learning, particularly among low-attaining children. A further concern was that teachers did not always build successfully on children's home-based

learning experiences, thus giving rise to discontinuities between home and school.

In summary, the 'big picture' of pre-school education by the mid-1990s indicated a need for improvements in the quality and quantity of provision based on empirical research at national and international levels, social concerns with equality of access and experience, and political concerns about the effectiveness and quality of pre-school provision. As the next section argues, the scene was set for unprecedented levels of political intervention in this sector.

2.1. Policy discourses, texts and strategies

Political intervention in education is based on the assumption that changes in the quality of teaching and learning, and the outcomes of schooling, can be brought about by a legislated curriculum which defines an entitlement to education, and specifies what forms of knowledge are considered to be worthwhile in social, cultural and economic terms. In contemporary research, policy is construed as a multi-faceted, multi-dimensional social and political phenomenon (Farrell, 2001), which involves state regulation, monitoring and control, as well as processes of change and transformation (Ball, 1997). National educational policies are also manifestations of global policy paradigms (Ball, 1999), which may reflect similar issues, for example, increasing economic competitiveness through developing a high-skills, knowledge-based economy; improving levels of literacy and numeracy, responding to social and demographic shifts, and to transformations in education and work through information and communication technologies. Within this global paradigm, evidence of 'what works' has been marshalled from international studies of school effectiveness (Beard, 2000; Brown, Askew, Baker, Denvir, & Millett, 1998). However, the subtleties and complexities of research findings have not always been acknowledged in national policy texts and strategies. Moreover, findings relating to the primary phase (5–11) have been applied to the pre-school phase, without adequate empirical understanding of how constructs of 'effectiveness' may be differentiated across phases of schooling.

Education became increasingly politicised from the 1980s onwards, with the Conservative and New Labour governments giving educational reforms a high media and political profile, alongside the consequent need to show short-term gains as evidence of policy impact. In England, a National Curriculum for 5–16-year-old pupils was introduced from 1988 onwards, along with national standard assessment tasks (SATs) at age 7, 11 and 14 in English and Mathematics. SATs results assumed a significant place in an increasingly positivist policy paradigm, and were used to construct league tables which identified schools' performance. The focus on performance indicators was further reified by a statutory inspection framework, implemented by the Office for Standards in Education (OfSTED). Increasingly, inspection reports from schools, and annual summary reports constituted a policy-focused evidence base on 'effective' practice.

International studies of educational performance shifted the government's attention towards how different outcomes can be achieved in relation to different pedagogical approaches, specifically in literacy and numeracy. This paved the way for further interventions in the form of national frameworks for teaching, as presented in the National Literacy Strategy (DfEE, 1998) and National Numeracy Strategy (DfEE, 1999), both of which were non-statutory, but more prescriptive than the National Curriculum (DfE, 1995) in pedagogy and curriculum content. The political agenda focused on raising educational standards and pupil achievement, based on particular constructs of what constitutes 'effective' pedagogy. The drive towards modernising the education system was at odds with the policy emphasis on going 'back to basics' in reading, writing and arithmetic (Alexander, 2000), and did not reflect the complexities of the global paradigm identified by Ball (1999). Nevertheless, the New Labour government introduced national targets for improving pupil performance in literacy and numeracy. The policy paradigm for 5–11-year olds thus set the scene for further interventions in the pre-school phase.

Until 1996 the pre-school phase was originally left outside the remit of government policies.

However, with the implementation of Key Stage 1 and SATs at age 7, the political agenda identified the need to measure 'value-added' between ages 5 and 7, which could only be achieved by policy interventions in the pre-school phase (Table 1). As with the National Curriculum, these policies underwent several reviews and revisions in curriculum content, pedagogy and assessment arrangements.

The Desirable Outcomes for Children's Learning (DLOs) (SCAA, 1996) was the first attempt at a framework which was applicable across the full range of pre-school provision. OfSTED became responsible for inspecting the quality of educational provision, the content of the programme, the quality of teaching, the assessment of children's attainment and progress, and the effectiveness of partnerships with parents. Although the DLOs did not prescribe a preferred curriculum or teaching approach, pre-school education was positioned as a preparatory phase for Key Stage 1. The value of play and talk received cursory attention, in spite of their significance in the theoretical and ideological underpinning of early learning and curriculum models (Wood & Bennett, 1999). Considerable responsibility was placed on practitioners to design and implement a curriculum, assess children's progress, and ensure conformity to the OfSTED inspection criteria, regardless of their varied qualifications, training and experience. Baseline assessment in literacy and numeracy was introduced in 1997 in order to measure learning outcomes, and provide a benchmark for 'value added' in Key Stage 1.

The DLOs proved problematic from the outset: in a subsequent government review, there was general agreement that the DLOs were 'open to misinterpretation', particularly by OfSTED inspectors, which often led to 'inappropriate practice' in some settings (QCA, 1999, p. 2). Play was insufficiently emphasised, leading to formal approaches too early, with children being put under pressure to learn in inappropriate ways. On the positive side, the DLOs had helped to improve planning and assessment, and encouraged staff across the different sectors to review and make changes to their provision. The omission of guidance on 3–4-year-old children was considered

to be problematic in relation to progression and continuity across the 3–5 age phase.

Not surprisingly, the DLOs proved to be short-lived and, as a result of combined pressure from early years specialists (academics and practitioners), a new framework for pre-school education was implemented from September 2000. The Curriculum Guidance for the Foundation Stage (CGFS) for 3–5 year old children set out learning goals in six curriculum areas (QCA, 2000); OfSTED inspections were retained; and the Baseline Assessment scheme was phased out in 2002 to make way for a more developmental Foundation Stage profile, to be completed at the end of the Reception year. This new framework articulated a play-based pedagogy, which acknowledged the importance of planned and purposeful play (both child-initiated and adult-directed) as an integral part of the curriculum.

At the same time, the National Literacy and Numeracy Strategies (NL/NNS) were being implemented, in order to provide continuity and progression from Reception into Year 1. The intention was to 'prepare' children in the last term of Reception for the full implementation of the NL/NNS in Year 1. Both strategies specified teaching objectives (and, by implication, learning goals) in a hierarchical order, and 'effective' instructional strategies in terms of teacher actions and behaviours, classroom management and curriculum planning. More worryingly for early childhood practitioners, the teaching technologies prescribed in both strategies were undifferentiated across the Primary age range, and were 'backward stepped' for Reception children. These technologies included direct, interactive teaching, aimed at maximising the time teachers spend with their class; shifting the balance of work from individualised to whole class and group teaching, maintaining a brisk pace; and focusing planning on teaching objectives rather than tasks. Whilst broad policy aspirations such as raising expectations and achievement are applicable across all phases, the original NL/NNS policy texts were inadequately differentiated for young children, although specific guidance was subsequently published in response to requests from teachers. Moreover, there were discontinuities in the learning outcomes for the

Foundation Stage (QCA/DfES, 2000) and those in the NL/NNS resulting in competing policy levers at school and classroom levels (Wood and Bennett, 2001; Wood, 2002).

Critiques of these outcomes-led models have ranged from outright condemnations to cautious reservations. Wood and Bennett (1999) highlighted significant tensions and contradictions between policy texts and the theoretical underpinning in early childhood education. They identified concerns about whole class teaching; over-emphasis on formal, sedentary activities; and inappropriate use of worksheets and rote learning in literacy and numeracy activities. There has been consistent scepticism about the mismatch between pedagogy and curriculum content in the Literacy and Numeracy Strategies, and the funds of knowledge from theory and research about early learning in these domains. For example, Whitehead captured the adversarial nature of the policy paradigm in literacy:

The current initiatives...are taking place in a highly charged atmosphere, created by linking literacy with political dogma and using the over-simplified language of crime and punishment when talking about complex issues. We hear of 'driving up' standards of reading and literacy 'crusades' and 'revolutions', and the sending in of task forces. Until very recently we were also subjected to the now notorious phrase 'zero tolerance of failure'. The language of military expeditions, of the violent overthrow of a state, of compulsion and intolerance may make politicians and civil servants appear fashionably 'tough' but very young children who are just starting to read and write, or who have problems with literacy, are not criminals, and do not deserve to be terrorised. Similarly, teachers, carers and parents who have been bullied and harassed by 'literacy policing' provide poor models of the empowering nature of adult language, literacy and thinking for the children they care for and educate. (Whitehead, 1999, pp. 108–109)

Lindsay and Desforges (1998) also expressed reservations about the NLS, specifically the degree of prescription; massed rather than distributed

practice; differentiation for high-ability children and those with reading difficulties; and the apparent lack of underpinning psychological principles. They also questioned the wisdom of government determining pedagogy, possibly at the expense of teachers' professional judgements.

In a review of research on teaching and learning numeracy, Askew and Brown (2001) questioned whether the conceptualisation of progression in the NNS was pedagogically sound, and the extent to which the strategy was adequately informed by research. This was particularly worrying in view of consistent evidence that failure in the early years of school to build on prior attainment and children's learning styles may result in mismatches between the task and the learner, and may limit later learning and achievement (Aubrey, 1997; Wright, Marland, & Stafford, 2000). There were also persuasive arguments that a formal start to early education can be counter-productive, if not damaging, to children's progress and achievements (Ball, 1994).

2.2. *The policy-practice dialectic*

The foregoing review indicates that the relationship between policy and practice is not seamless, nor are the agendas of policy makers and policy users in synchrony or indeed, in harmony. The activities of policy-making and policy implementation are fundamentally different, and are pursued in multiple contexts, by different people with different, and sometimes conflicting agendas. As the foregoing discussion has argued, conflicting agendas have become more evident as education has become increasingly politicised, particularly as governments have sought quick-fix solutions, within the relatively short term of office, to complex and often entrenched problems that require longer-term solutions. Ball argues that policy texts tend to be 'busy, abstract and tidy' (1997, p. 270), whilst the processes of change and policy implementation are much more complex and fraught with contradictions and paradoxes. In his view, the prevailing, but normally implicit, view is that policy is something that is 'done' to people:

As first-order recipients 'they' implement policy, as second-order recipients 'they' are ad-

vantaged or disadvantaged by it. I take a different view...policies pose problems to their subjects, problems that must be solved in context. Solutions to the problems posed by policy texts will be localised and should be expected to display 'ad-hoc-ery' and messiness. Responses indeed must be 'creative'. Policies do not normally tell you what to do; they create circumstances in which the range of options available in deciding what to do is narrowed or changed or particular goals or outcomes are set. A response must still be put together, constructed in context, offset or balanced against other expectations. All of this involves creative social action of some kind. (Ball, 1997, p. 270).

Ball's view contrasts with some of the critiques noted above, which have characterised early childhood teachers as being overwhelmed by policy texts and strategies, and cowed by power-coercive tactics which have operated at government, LEA and school levels. In common with Ball, Farrell (2001) views policy as dynamic, interactive and negotiable between policy makers and policy players, with both groups bringing their own values, interests and biographies to the process of change and transformation.

In summary, political intervention in pre-school education has been a mixed blessing; whilst improvements in the quality and quantity of provision could only come about with policy directives and substantial increases in funding, there were inconsistent messages in policy discourses, texts and strategies. More specifically, there were tensions between the flexible, learner-centred pedagogy in the Foundation Stage curriculum guidance, and the more prescriptive approaches endorsed by the NL/NNS. Discourses of standards, effectiveness and performativity were antithetical to the prevailing discourses embedded in developmental and child-centred orientations, which have exerted a powerful influence on professional cultures and practices within early childhood education (MacNaughton & Williams, 1998). Even within an increasingly positivist policy paradigm, policy design and implementation are not destined to follow the same trajectories. As the next section shows, research on teaching provides

evidence of the impact of policy reforms, and the gradual emergence of rearguard action in the academic and practitioner communities.

3. What happened to research on teaching?

Early childhood education has traditionally been informed by research on learning within the field of developmental psychology, with its focus on 'ages and stages', readiness for learning, and developmentally appropriate practice (Bredekamp & Copple, 1997; MacNaughton & Williams, 1998). Educational practice, and curriculum development, have been based on an eclectic ideological and theoretical base (Saracho & Spodek, 2002; Slentz & Krogh, 2001), which includes a commitment to child-centred approaches, a play-based curriculum, exploration and discovery, and meeting the child's individual needs. However, research on teaching has revealed tensions between the rhetoric and ideology of early childhood, and the realities of classroom practice, particularly for 4-year-old children in Reception classes. The Reception year provides a transition between the informal, play-based approaches in nurseries and playgroups, to the more formal primary curriculum. There was consistent evidence that provision and practice were often inappropriate, with poor planning and resourcing, inadequate staffing, few opportunities for play, and inaccurate match between curriculum content and young children's learning styles (cf. Bennett et al., 1997). In order to explore this rhetoric-reality divide, evidence was needed of what actually happens in classrooms, not just in relation to processes and products, but with more detailed understanding of early childhood teachers' thinking and practice.

In 1989, teachers' knowledge, beliefs and theories, and their relationship to classroom practice, was a relatively new and growing field of enquiry, and one which was bedevilled by the search for definitions of these terms (Bennett et al., 1997). Fang's (1996) overview charts the shift from process-product research, which assumed a linear and unidirectional relationship between teachers' actions and pupil outcomes, towards research on teacher cognition, which unravels the complexity

of teachers' thought processes and actions within dynamic classroom contexts. In Fang's view this shift was facilitated by diversification in research paradigms, and the use of mixed methods to facilitate understanding of meaning perspectives in relation to actions (e.g., classroom observation, stimulated recall strategies, think-aloud protocols, diaries and focused interviews). In early childhood, studies in this field were relatively scarce in the 1980s, but indicated that teacher knowledge and beliefs are related to, predict or determine classroom practice. There was limited understanding of the relationship between knowledge, beliefs and practice, in part because few studies had incorporated contemporary thinking about the situated nature of teacher knowledge, or the potentially powerful effects of constraints in mediating this relationship (Bennett et al., 1997).

The shift towards mixed-method approaches, and a more situated perspective of teachers' pedagogical epistemologies was consistent with the dynamic between interpretive and critical paradigms, and at the same time incorporated post-modern perspectives on voice and empowerment. A study by Bennett et al. (1997) exemplified a shift towards carrying out research *with* teachers rather than *on* teachers, and involved the close collaboration of the participating teachers in data interpretation, refinement and validation. The study involved nine Reception class teachers and focused on their theories of play, with the intention of identifying how specific aspects of teachers' thinking influenced specific aspects of their pedagogy. Data sets included narrative accounts of how teachers integrated play into the curriculum, followed by group discussion and clarification of the key constructs resulting from these analyses, which then informed the design of semi-structured interview schedules. Data on classroom practice were collected via protocols of teachers' intentions for play, videotapes of teacher-selected episodes of play, and post-video stimulated recall. In the final stage teachers met again as a group, and shared reflections-on-action through self-selected vignettes from the videos, providing validations of the analyses of their theories, identifying the constraints on practice, and reflecting on changes in their theories and

practice arising from their involvement (Wood & Bennett, 2000).

In relation to the impact of the National Curriculum on their theories and practice, the teachers' responses were by no means uniform (Wood, 1999): the most common problems were curriculum overload, assessment procedures, and the downward pressure on the Reception and nursery curriculum. The teachers' theories about the value of play predominated over their views of the impact of the National Curriculum, even where this was perceived as having a constraining influence. Play was integrated into the curriculum, and learning outcomes were related to the nine subject areas, predominantly to literacy and numeracy, and to personal and social skills. The teachers all revealed specialised pedagogical knowledge of young children's learning; e.g., their knowledge of developmental progression in emergent reading and writing underpinned their provision for play, specifically in role play areas which were resourced to support literacy learning. Teachers' knowledge of how children learn was more complex and situated than the reductive, decontextualised statements of attainment in the National Curriculum. However, there were two missing links in their pedagogical approaches: adult involvement in play, and teacher assessment of play. In general, the teachers did not involve themselves in play because of other demands on their time, and the belief that inappropriate interventions would stifle free play. This meant that they had insufficient opportunities to observe and assess children's learning processes and outcomes in play-based activities. The most constraining influence was considered to be the lack of classroom assistants, and the high ratio of children to adults in comparison to nurseries and playgroups.

An unintended outcome of this study was that the participating teachers changed their theories, their practice, or both, which occurred through a three-stage process of reflective consideration, problematising practice, and changing theories and practice (Wood & Bennett, 2000). The study highlighted the importance of teachers' active involvement in confronting the relationship between their theories and practice, identifying their

own situated understanding of their professional knowledge, and opening this up to reflective scrutiny and consideration within a community of practice. These findings are consistent with contemporary arguments for developing an epistemology of practice which distinguishes the knowledge that teachers generate as a result of their experience, from that generated by academics (Lienstermacher, 1994; Anderson & Herr, 1999). In this study, the teachers revealed the complexity of their pedagogical epistemologies, which stood as a critique of, and counterpoint to some of the more simplistic assumptions underlying policy discourses.

A study by Woods, Boyle, and Hubbard (1999) raised similar issues about the intensification of curriculum content as a result of national policies. Their study focused on provision for multiculturalism and bilingual learners, using multi-method approaches, and drawing on the perspectives and experiences of teachers, parents and children. This focus was a response to concerns about the ethnocentric nature of national curriculum frameworks, the emphasis on English as the language of teaching and learning, and inappropriate forms of assessment. The findings indicated that whilst the Desirable Learning Outcomes for Reception children, and the new 'slimmed-down' National Curriculum (DfEE/QCA, 1999) were perceived as over-prescriptive, teachers found more appropriate methods to support children's learning. Teachers' mediations of national policies were particularly important in relation to the diversity of learners and local communities in the sample schools. The study also exemplified a growing trend towards eliciting young children's perspectives on their learning and curriculum experiences. The researchers developed methods for relating to young bilingual children, and assessing their learning through eliciting their own perspectives and constructions of meaning, rather than relying on government-imposed assessment frameworks which, for many children, provide a deficit rather than a credit-based model of assessment (Lindsay & Desforjes, 1998).

Wood and Bennett (2001) provide further evidence of the impact of national policies on teachers' thinking and practice in their study of

progression and continuity from pre-school to Key Stage 1. This study was carried out in 1999–2000 when the full complement of policy initiatives were impacting across these phases (Table 1). The DLOs had run aground, and were about to be replaced with the new Curriculum Guidance for the Foundation Stage, and the Literacy and Numeracy Strategies were in the early stages of implementation. Teachers were beginning to struggle with innovation overload as waves of policy initiatives in one area created unanticipated problems in other areas. Teachers were co-participants in the study, and were involved in data collection and interpretation, and discussion of emerging findings. The methods included documentary analyses of school policy texts and planning frameworks, semi-structured interviews with teachers, classroom observations, teachers' reflections on portfolios of work showing children's progression and research conversations with children based on lesson observations and their portfolios. The study revealed increasing tensions for teachers, between responding to new initiatives whilst utilising existing knowledge and expertise. This became increasingly difficult in relation to the Literacy and Numeracy strategies, because of the 'high-pressure, high-support' policy levers that accompanied their implementation. Nursery teachers maintained a flexible, learner-centred pedagogy, which allowed 3–4-year-old children long periods of time for engaging in free and structured play, along with teacher-directed inputs in specific curriculum areas. In the Reception year, the Literacy and Numeracy Strategies were impacting on practice from the first term, with downward pressures from school managers to implement

aspects of the strategies in order to prepare children for Year 1, and, subsequently, SATs in Year 2. There was a gradual shift towards more formal teaching approaches, with less time for play, and more teacher-directed inputs in which the pacing and sequencing of content were determined by the Literacy and Numeracy strategies. Year 1 teachers had less control and flexibility in curriculum content and delivery, and they were not able consistently to plan their teaching on the basis of their assessments of children's progress and achievements. Even the more experienced teachers considered that they were structuring progression differently since the advent of the strategies: teaching objectives were planned even though these did not build on children's existing knowledge and understanding. Thus in terms of teaching and learning there was a major shift from a learner-centred model, which emphasised building on children's competences, to a curriculum-centred model, in which children were enculturated into the demands of the strategies. The ways in which children talked about their learning and progression also reflect this shift, because they acquired the dominant discourses and cultural conventions of the two strategies: e.g., they valued getting better at handwriting, writing on the line, spelling, writing longer sentences, getting their sums right, and writing numerals correctly (Wood & Bennett, 2002, p. 83).

In spite of these trends, there were varying degrees of resistance, mediation and adaptation among the teachers, depending on their experience and length of service. National policies were mediated via school policies in relation to local communities, teachers' values and the overall

Table 1
Chronology of educational policy initiatives in pre-school education

1.	Desirable outcomes for children's learning (age 4–5) (SCAA, 1996–2000)
2.	Office for standards in education inspection framework (1996 onwards)
3.	Baseline assessment (age 5) (SCAA, 1997–2001)
4.	National literacy strategy (from last term of Reception) (1998)
5.	National numeracy strategy (from last term of Reception) (1999)
6.	Curriculum guidance for the foundation stage/early learning Goals (age 3–5) (QCA/DfES, 2000)
7.	Foundation Stage Profile (QCA/DfES, 2002)
8.	Revised Key Stage 1 (age 5–7), National Curriculum (DfEE/QCA, 1999)

school ethos. Teachers' planning was adapted for the age and ability of children, but with more consideration of individual needs in Nursery and Reception than in Year 1. There were increasing concerns that the pace, style and sequencing of teaching, as determined by the Literacy and Numeracy Strategies, were not synchronous with the teachers' professional knowledge about how young children learn. The study revealed serious tensions between national policies and teachers' professional knowledge, specifically as they attempted to reconcile curriculum-centred and learner-centred models of progression and continuity. However, there was evidence of creative social action, which Ball (1997) considers to be fundamental to policy implementation.

The themes of resistance, mediation and adaptation were central to a longitudinal, ethnographic study of Primary Assessment and Curriculum Experience for 4–11-year olds, focusing on the social world of children's learning (Pollard & Filer, 1996). The study tracked the implementation of the National Curriculum from Reception onwards, and noted the considerable difficulties and stress experienced by teachers, particularly in matching the linear, hierarchical structure with less predictable patterns of young children's learning and interests. The study combined theoretical perspectives and methodological approaches from social and educational enquiry, utilising mixed methods and combining the perspectives of teachers, children and parents. The focus on classroom processes was combined with detailed attention to pupils' learning, and to their sense of personal identity. Pollard and Filer used narrative methods, specifically 'learning stories', for reporting pupil careers and representing pupils as social and political actors in the ways they engaged with curriculum learning in school. In evaluating the research process and validity of the study, Pollard articulated the self of researcher as a research tool, in relation to his own experience as a teacher, parent and academic (1996, p. 302), and acknowledged the power relations between the research team and the participants.

Whilst researchers have remained interested in small-scale studies, which have aimed for in-depth quality portraiture, the government's research

agenda in the pre-school sector has been increasingly focused on the 'effectiveness' of different settings in relation to pupil learning outcomes and subsequent learning careers. The study on Effective Provision of Preschool Education (EPPE), and its linked projects, are an outcome of this agenda. The EPPE project, is a large-scale, mixed-method, longitudinal study tracking the progress and development of 3000 children over an 8-year period (age 3–11) (Melhuish, Sylva, Sammons, Siraj-Blatchford, & Taggart, 1999; Sylva, Sammons, Melhuish, Siraj-Blatchford, & Taggart, 1999). The study is broader than those reviewed above in that it includes children in the six types of pre-school settings most commonly found in the UK. Using an educational effectiveness design employing multi-level modelling techniques, the research has identified the impact of a range of child, parent and home influences on children's attainment and social behavioural outcomes. The results of the quantitative analyses of the effectiveness of individual settings were used to select a small number of case studies for more detailed qualitative investigation of policy and practice. Outcomes from the study on Researching Effective Pedagogy in the Early Years (Siraj-Blatchford, Sylva, Muttock, Gilden, & Bell, 2002) have provided detailed understanding of what constitutes effective practice in diverse and complex settings. A further linked study shifted the emphasis to Pedagogical Effectiveness in Early Learning (Moyle, Adams, & Musgrove, 2002), drawing on the theories and practices of teachers and pre-school practitioners, specifically in relation to the impact of their decisions and actions on children's learning. Findings from these linked studies reflect the complexity of teaching and learning in the early years, in the context of diverse forms of provision. A common theme is that a pedagogical approach which combines adult-directed activities with children's self-initiated activities, requires high levels of skill and ability, as does the role of adults in interacting with children in play. Although teachers endorsed the educational potential of play, they often had difficulties with understanding their role, and assessing the outcomes of play. Thus although the Foundation Stage guidance endorses a

pedagogy of play, achieving this in practice remains a considerable challenge, particularly where early childhood practitioners need to reconcile their traditionally facilitative role with more proactive pedagogical approaches promoted in contemporary socio-cultural theory, and with the demands of policy frameworks (Wood, 2004). The foregoing studies also confirm Schoenfeld's view that teaching is a knowledge-based activity, which is highly interactive and contingent on dynamically changing goals (1999).

The research evidence reviewed here has provided insights into the ways that national curriculum policies have impacted on, and been mediated by, teachers' theories, meanings, and experiences, leading to multiple interpretations and recontextualisations that are situated in local cultures and contexts. The policy paradigm assumes a unidirectional relationship between teaching and learning. In contrast, teachers' pedagogical decisions and actions are situated in more complex structures and realities, and rely on teachers as knowers and as agents rather than as passive implementers of externally driven change (Wood & Bennett, 2001). Because teaching involves both cognitive and affective components, it is therefore difficult to reduce to prescribed competences or technologies. Contemporary studies represent a paradigmatic shift away from the algorithmic certainties of positivism, towards more eclectic methods of enquiry and reporting that are suited to these complexities. Such trends exemplify Gage's vision of 'paradigm compatibility' (1989, p.146), as well as Guba and Lincoln's vision of 'a responsive and collegial relationship' between exponents of different, but not necessarily competing, paradigms (1994, p. 116). Thus it appears that academics and researchers are prepared to learn from each other, but in the new paradigm war, the question remains whether policy makers are prepared to learn from the research and practitioner communities.

4. Future trends

One of the dangers of 'command and control' policy reforms is that teachers are positioned as

passive implementers of externally driven changes which, as Brown argues, may be counter-productive to the policy vision:

...although recent government initiatives have been generally well-intentioned responses to specific concerns, the pressures of time on policy have often led to detailed implementations which are not fully thought through, and piloted either insufficiently or not at all. Hence they result in new unanticipated problems. Attempts either to correct old initiatives or launch new ones ensue, leading to initiative-fatigued, and demoralisation of teachers. In several cases new initiatives have been launched before awaiting the results of development work. Impatience with implementation which is thought to be unfaithful to the original aims has led to increasing prescription of practice, without acknowledgement of the influence on practice of the beliefs, attitudes and knowledge of teachers. (Brown, 2001, p. 7).

It is possible to argue that teachers have interpreted government policies in ways that were not intended by their architects, and that, especially in literacy and numeracy, there has been too much adherence to a methodology that was intended to be flexible for teachers and responsive to learners. However, when these initiatives are set in the wider context of policy directives such as testing and assessment, target setting, OfSTED inspections, and over-bureaucratisation, it is easy to understand how teachers can misinterpret such powerful rhetoric and insistent dogma. There is little wonder that policy directives have led to unintended negative consequences. Recent commentators suggest that policy interventions may have gone too far. For example, Ball (1999) argues that the emphasis on 'performativity' has produced a self-defeating, impoverished view of teaching and learning which may lead to trained incapacity. In an evaluation of the literacy and numeracy strategies, the authors comment that sustained improvements in the quality of teaching and learning can only come about through 'capacity building' in developing teachers' subject knowledge and pedagogical understanding, whilst at the same time allowing for professional

discretion and creativity (Earl et al., 2003). Such efforts must include professional development opportunities which engage teachers and researchers in collaborative studies.

In the wider professional community, there are multiple voices that resonate with the findings and recommendations of the studies reviewed here. Whether national curriculum policies are appropriate in relation to contemporary theories of learning remains the subject of intense debate (Mortimore, 1999; Wood, 2004). There are increasing pressures for an upward extension of the Foundation Stage into Key Stage 1, in order to improve progression and continuity (a goal that is already being achieved in Wales). Professional organisations (including parent pressure groups and teaching unions) are calling for an end to SATs at age 7, which would reduce downward pressure on the Foundation Stage, and create time and space for a more balanced curriculum. The extent to which evidence from within practice can fuel these counter-insurgent movements remains to be seen. However, on a positive note, studies that focus on the nature of, and relationship between, teacher thought and action are making a significant contribution to explaining how and why teachers do what they do amidst the complexity of the classroom (Schoenfeld, 1999). Along with studies of the effects of different pedagogical approaches and curriculum models on children's learning careers, the big picture of research and scholarship in early childhood education is increasingly ambitious in scope, and more rigorous in design. In the research community, academics need better understanding of policy questions, without being driven by the need to provide solutions that fit governments' predilections for short-term results. Better networks of communication are also needed for informing policy makers of reliable evidence, and how this might inform decisions that have wide-ranging implications for children.

Finally, returning to Gage's article, contemporary educational research reveals distinct trends towards studies that look beyond the confines of traditional paradigms, select appropriate methods and research instruments according to the aims and aspirations of the studies, and combine

theoretical perspectives from related disciplines. These trends typify a post-modern endeavour to go beyond fitness for old paradigms, towards fitness for new purposes. In line with post-modern perspectives, research on teaching has revealed multiple voices, perspectives and discourses, with increasing attention to the experiences and perceptions of different stakeholders, including teachers and children. What has endured, and perhaps strengthened since Gage's article, are the moral obligations held by the research and practitioner communities in relation to the 'payoff', namely, the joint endeavour to improve the quality of education, and the life chances of children and young people.

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