Influencing policy and practice through research on early childhood education

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Abstract

This paper presents the scientific evidence from one study that has informed Early Years policy in the U.K. It begins with a description of the policy context in the early 1990s and shows how research was used to inform a decade of policy innovation. There have been many studies of ways that research has informed practice but fewer on instances of research shaping policy. This paper is one step in that direction, as advocated by Whitty (2007) and Huw, Nutley and Smith (2001).

[Key Words] EPPE on Policy, Early Childhood Practice, Early Years Research

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FAMILIES' NEED FOR CHILDCARE: THE SOCIO-ECONOMIC AGENDA

Prior to the centre left 'New Labour Party's electoral victory in 1997 policy in early years had a discernable split between 'care' and 'education'. Unlike some European countries (most notably in Scandinavia) pre-school provision in the UK, at the turn of the century was far from universally uniform. As non-statutory, the sector had grown according to the laws of supply and demand. The system embraced both a growing voluntary and private sector alongside the maintained (public) sector. There were considerable geographical and socio-economic differences in the extent to which parents had access to a pre-school place for their child and the nature of the provision itself varied widely (Sylvia and Pugh, 2005).

The new Government was committed to 'concentrate resources on the essential tasks of combating unemployment and poverty' (Labour Party Manifesto 1997). The key to delivering this promise was to lower the number of workless households and improve public services. The UK's workforce (like many other industrial countries) since the Second World War has become increasingly 'feminised' because: more women are choosing to leave a purely domestic role to have a career commensurate with their academic qualifications and households often rely on a woman's income to maintain levels above those of relative poverty. To maintain a female workforce requires adequate 'organised' provision for young children. This was to be brought about by a raft of social policies including the introduction of Working Families Tax Credits and expanding child care (DfES, 2002) in order to encourage parents to return and stay in the active work force. Thus the expansion and improvement of services to working families was key to this important piece of social reform. This bold commitment was summed up as follows:

'While the nineteenth century was distinguished by the introduction of primary education for all and the twentieth century by the introduction of secondary education for all, so the early part of the twenty first century should be marked by the introduction of pre-school provision for the under fives and childcare available to all'

Rt Hon Gordon Brown, MP, Chancellor of the Exchequer, (Her Majesty's Treasury, 2004a).
RAISING EDUCATIONAL ACHIEVEMENT THE STANDARDS AGENDA

The end of the twentieth century saw an increased focus on educational 'standards' across all curriculum subjects and phases of education in the UK. The introduction of a National Curriculum (Great Britain, 1988) and national statutory assessments (DES and Welsh Office, 1988) for children at the ages of seven and eleven years provided the backdrop to the debate about how well our young children were performing. The development of international comparisons of standards in literacy, mathematics and science PISA (Programme for International Student Assessment), TIMSS (Trends in International Mathematics and Science Study) and PIRLS (Progress in International Reading Literacy Study) see Mullis et al., 2003 was a wake-up call to many Governments (particularly Germany) concerned with a 'standards' agenda. The relative position of different countries on these international 'league tables' has added much to the debate about effective teaching, particularly in reading and mathematics (enabling students to access the curriculum), through-out each age phase.

This increased focus on standards during statutory schooling (age 5 onwards) led to an inevitable interest in, and questions being asked about, children's skills, attitudes and dispositions to learn at school entry. There was considerable concern about preparing children, especially those from disadvantaged background, for the challenging National Curriculum that lay ahead of them. This turned the policy searchlight on early years education as one means of raising standards in primary schools.

The effects of early education: The Research Agenda

Internationally a number of key early years research studies had demonstrated the positive benefits of pre-schooling. Two influential randomized control trials; the Perry Pre-school study (Schweinhart, Barnes and Weikart, 1993) and the Abercedarian study (Ramey and Ramey, 1998) both demonstrated positive effects of early education and care, especially for children from disadvantaged backgrounds. The Perry study was especially important because, as a longitudinal study, it was able to provide evidence about the long term benefits that pre-school can bestow (in the US context). The study showed that early education (ages 3-5 years) improved high school grades, decreased delinquency and adult crime, and improved employment status and earnings. The often quoted economic argument that for each $1 invested in pre-school, $7.16 was saved in social, health and justice systems costs later on was persuasive in encouraging expansion in early years in the US (Barnett, 1996). But in the UK there was little research evidence to suggest
that our system of pre-schooling was likely to replicate these outcomes.

The early 1990s saw some change in research interest in the early years. The Rumbold Report (DES, 1990) highlighted the potential for pre-school education to give children a better start at school. This was followed by the Start Right Report (Ball, 1994) that called for investment in universal pre-school education. In this influential report, research evidence was reviewed for a convincing case for the positive effects of early education on motivational as well as academic outcomes.

**Evidence based policy making**

The last decade of the twentieth century saw major reforms to early years education and care in response to both the social reform and standards agendas. The Labour Party made clear that its social reforms would be informed by research evidence (Humes & Bryce, 2001). The policy challenge was to transform services available for England’s youngest children (aged 0-5), through a plethora of policy initiatives and legislation that sought to move the ‘early years’ sector from a ‘patchwork quilt’ to a ‘seamless cover’ of joined-up services. These services were to combine education and care and provide a smooth transfer from non-statutory to statutory schooling. This paper illustrates how research has helped to inform and shape the development of early years policy by focussing on the Effective Pre-School and Primary Education 3-11 (EPPE 3-11), an example of a high profile study that provided evidence to inform policy development.

**The EPPE 3-11 Project (1996-2008)**

The EPPE study was funded by the UK’s Department for Education and Skills (DfES) to provide answers to policy questions about early childhood education and care. The project was the first major European longitudinal study of a national sample of young children’s development between the ages of 3 and 7 years.

**Research aims**

EPPE investigated what kinds of pre-schooling were most effective for young children. It researched three issues with important implications for national policy and educational practices:

- the effects on children’s cognitive and social/behavioral development of different types of pre-schooling,
• the structural and process characteristics of more effective pre-school centres, and
• the interaction between pre-school and child/family characteristics.

Research design
To investigate the effects of pre-school education, EPPE collected a wide range of information on 3,000 children. They also studied their parents, home environments and the pre-school settings attended. Settings (141) were drawn from a range of providers (local authority day nursery, integrated centres, play groups, private day nurseries, nursery schools and classes). A sample of 'home' children (no/minimal pre-school) was recruited to the study at school entry for comparison with the pre-school group. In addition to investigating the effects of pre-school, EPPE explored the characteristics of effective practice (see Siraj-Blatchford et. al., 2008). For further detail of mixed methods design see Sammons et. al., 2005, Siraj-Blatchford et. al., 2006.

EPPE collected extensive data, through age appropriate assessments (at different time points see Sammons et. al., 2002a & 2003) on children's cognitive and social/behavioral outcomes. This was coupled with parental data, enabling children progress and attainment to be studied in relation to family background characteristics. EPPE was the first major longitudinal study to adopt an educational effectiveness design and apply this to pre-schooling. This method was chosen as it enables the research team to study the progress and development of individual children and to identify the effects of individual pre-school centres on children's outcomes at both entry to school and at the end of the Key Stage 1 (age 7 plus) after controlling for background factors. The growing field of school effectiveness research has developed an appropriate methodology for the separation of intake and school influences on children's progress using so-called 'value added' multilevel models (Goldstein, 1987, 1995). The original EPPE study finished in 2003 and has since been extended to 2008 to follow up the same sample of children to the end of their primary school (at aged 11 years.).

In addition, detailed information was collected on the pre-school centres children attended. This included the use of observational rating scales The Early Childhood Environmental Rating Scales: Revised (Harms et al, 1998) and Extension Sylva et. al., 2003), Caregiver Interaction Scale (Arnett, 1989), and interviews with the Centre Managers to produce a profile for each centre, which included information on staffing profiles and organizational practices (see Taggart et. al, 2000).
Findings

EPPE identified significant positive effects of early childhood education on children's development. It showed that better quality, longer duration and the effectiveness of the pre-school setting attended made an important contribution to children's progress and attainment which could have lasting effects (Sammons et. al, 2004). It also highlighted the relative strengths (expressed in Effect Sizes) of background characteristics on specific cognitive and social/behavioral outcomes. A key finding was the importance of the quality of the early home learning environment (HLE) for ensuring children's long term success (Melhuish et al., 2007, Sylva et. al., 2004).

The impact of EPPE on policy

These findings contributed to the 'evidence base' for UK policy on universal pre-school provision and targeted services in disadvantaged communities. The paper will identify important policy questions that have been addressed by the EPPE research and show how this helped 'shape' developing policies and legislation through references to key documents.

In 2006 the DfES’s Analytical Strategy (DfES, 2006a) stated:

"Effective Provision of Pre-school Education (EPPE) at Key Stage 2
This project is helping to unpack the impact that pre-school education has on children’s learning when they reach Key Stage 2. The results of the EPPE study have already had a significant impact on policy development in early years, especially through clearly demonstrating the vital influence of the quality of provision on successful outcomes. Continuation of the cohort will enable us to understand the lasting impact of early years experience and the factors which either enhance or negate this" (DfES, 2006a, p20).

EPPE’s 'significant impact on policy development' is best considered through the published documents that refer to its influence and the importance of the research findings.

Prime Minister Tony Blair in 'Meeting the Childcare Challenge, The National Childcare Strategy' (DfEE, 1998) said, about children, that: "good quality childcare .... is vital to them growing up happy and secure in themselves, socially confident and able to benefit from education" adding that "childcare has been neglected for too long" (DFEE, 1998, p3). This Green Paper paved the way for a major policy initiative outlined in 'Choice for parents, the best start for children: a ten year strategy for childcare' (HMT, 2004).
This landmark document sets out a long-term vision on the delivery of newly reconfigured services which would fundamentally change the experiences of children under the age of 5. The Ten Year Strategy paper is clear that ‘the main source of analyses of the impact of pre-school provision on child development in the UK is the Effective Provision of Pre-School Education Project (HMT, 2004, p65).

This milestone strategy provides a policy rationale for the benefits of early education and repeatedly cites EPPE as providing wide ranging evidence on policy issues. The remainder of this paper quotes the research evidence cited in the Ten Year Strategy illustrative of a range of policy questions EPPE responded to. It covers only a limited number of the policy implications of EPPE, namely those concerning centre-based provision. EPPE also reported on the importance of the contribution of the family to children’s development through the quality of the HLE. This has influenced the development of policies to support families and communities (Sure Start Local Programmes see Melhuish & Hall, 2007).

Policy Question 1 - Who benefits from pre-school education?

One of the key policy questions facing the Government concerned the benefits of universal provision? The traditional view had been that early childcare, provided at the States expense, was most profitably used strategically for disadvantaged families to enable poor children to ‘catch-up’ with their more advantaged peers [the rationale for early social service day care centres]. The pilot voucher scheme introduced by the Tories in the early 1990s explored this. EPPE evidence showed that ‘any pre-school experience can have clear positive effects on children’s social, emotional and cognitive development’ (Her Majesty’s Treasury, 2004b, p8).

The finding that pre-school has benefits for ALL children (with attendance at pre-school being of a similar Effect Size to mother having an academic qualification at age 18 versus none) has led directly into policy development. This is not to say that the benefits for disadvantaged children are not of policy interest (see below), but it did provide the research evidence that suggests universal provision would benefit society as a whole. The big policy shift announced in the Strategy was twofold:

1) “legislation for a new duty on local authorities in place by 2008 so that over time they will secure sufficient supply to meet the needs of families” and

2) “a goal of 20 hours a week of free high quality care for 38 weeks for all 3 and 4 year olds with this Pre-Budget Report announcing a first
step of 15 hours a week for 38 weeks a year reaching all children by 2010" (HMT, 2004, p1). For the first time, pre-school in England was made universally available at the State's expense.

**Policy Question 2 - At what age should children begin pre-school?**

This has long been a contentious issue in the social discourse about young children and families. The twentieth century notion of the nuclear family with mum at home with the children has long been dismissed, but the debate about at what age do children gain benefits from group care has persisted. The Strategy stated:

"Evidence from the Effective Provision of Pre-school education (EPPE) project shows an early start to pre-school can have significant positive effects on children’s cognitive and social development. For example, every additional month of quality pre-school from the age of two improves cognitive performance at the start of school, a gain that remains to at least age seven. Those who started in a good quality pre-school at two or younger were up to 10 months ahead of those without pre-school. The EPPE evidence also shows that an early start in pre-school improves children’s social skills at entry to school." (HMT, 2004, p8).

This notion of an ‘early start’ remains controversial as EPPE reported positive and negative findings on institutional care, as the Strategy states: "However, the studies indicate that high levels of group care of poor quality below the age of three can have a small negative effect on behaviour for some children’ p8. This finding resonates with other research (NICHD Early Child Care Research Network, 2004) that suggest that early institutional (group) care, especially for long hours may not be in the best interest of some very young children. This finding added to the debate about what constitutes good care for children under the age of 3. There have been a number of policy initiatives to enable more parents to stay at home with babies:

"Statutory Maternity Pay, Statutory Adoption Pay and Maternity allowance will be extended from April 2007 to 39 weeks"…to enable fathers to play a greater role in the crucial first year of a child’s life the Government intends to bring forward proposals…to give the mother the right to transfer a proportion of her maternity pay and leave to the father… giving parents more choice about how to arrange parental care for a new baby" (HMT, 2004, p30).
Policy question 3 - For how long should children attend pre-school?

On the question of duration, again the paper refers to EPPE findings: 'Evidence from EPPE shows that the benefits are gained from regular part-time attendance through the week. Full-time attendance gives no better gains than part-time although EPPE suggests that pre-school experiences at all levels of quality and duration have positive effects on children’s development compared with children who had no pre-school experience' (HMT, 2004, p8). The findings on attendance have been used extensively across policy documents, most influentially in A Code of Practice on the Provision of Free Nursery Education Places for Three- and Four-Year-Olds (DfES, 2006b) and in the House of Commons' enquiry into Early Years (House of Commons. Education Sub-Committee, June 2000).

Policy question 4 - Can early childcare help children ‘at risk’ of development special educational needs (SEN) and reduce social disadvantage?

Early identification for SEN is crucial, especially for children from disadvantaged backgrounds. This aspect of social disadvantage was an important research focus and a sub-study the Early Transitions and Special Educational Needs (EYTSEN, see Sammons et. al., 2002b, 2004c Taggart et. al., 2006) explores this in depth. An index of multiple disadvantage (Sammons et. al., 2002b) developed on the project showed that the higher up the index children appeared the more likely they were to be ‘at risk’ of developing SEN. The Strategy reports on EPPE evidence: 'EPPE data suggest that while one in three children were 'at risk' of having special educational needs at the start of pre-school, that proportion fell to one in five by the time they started primary school, suggesting that pre-school can be an effective intervention for the reduction of special needs' needs' (HMT, 2004, p8). Whilst not eliminating the impact of disadvantage, quality pre-school education can provide children from lower income households with a better start at school. This has been important in policy development and has seen a pilot project to study the impact of free pre-schooling for under 2 year olds from disadvantaged backgrounds.

Policy question 5 - What kinds of pre-school provide the best outcomes for children?

One of the key questions for EPPE was the impact of different types of provision on children. Multilevel statistical modeling enable individual ‘centre’ effects to be studied so that ‘effective’ centres could be identified and their characteristics described. EPPE findings associated with quality, type and the characteristics of the work force had a considerable impact on policy. The Strategy sets out the EPPE evidence on quality:
"EPPE suggests that in comparison with children having no pre-school, all levels of quality and duration show a significant positive effect compared to none. The quality of pre-school experience is directly related to the intellectual, social and behavioral development of children. After taking into account the impact of child, family and home environment characteristics, evidence shows significant links between higher quality and better children outcomes, with children from high quality pre-schools possessing higher reading attainment and showing fewer conduct problems. It goes on to say: "evidence suggests that the effects can be substantial, EPPE analysis indicates that the difference in child development between having pre-school and not having pre-school is 4-6 months of development. For the highest quality integrated centres, the difference can be as much as nine months. This is a substantial difference given that it occurs over just two years. The combination of high quality provision and high duration shows a particularly strong effect" (HMT, 2004, p66).

EPPE's finding on the importance of quality has been persuasive and accepted across the party political divide (Liberal Democrats, 2003).

The Strategy also cites EPPE evidence on where quality can be found and factors that contribute to enhancing quality:

"EPPE conclude that good quality provision can be found across all types of pre-school settings but is higher overall in integrated learning and childcare centres, nursery school and nursery classes. Better quality pre-school centres are associated with better outcomes, with key explanatory factors being: staff with higher qualifications, staff with leadership skills and long-serving staff; trained teachers working alongside and supporting less qualified staff; staff with a good understanding of child development and learning and strong parental involvement" (HMT, 2004, p66).

The EPPE qualitative case studies (Siraj-Blatchford et. al., 2003 Siraj-Blatchford and Manni, 2008) gives detailed information for practitioners on aspects of effective practice and how to provide quality experiences for young children. These EPPE findings have been particularly influential and have been incorporated wholesale into Primary National Strategy (DfES, 2006c, p13)

Given the highest overall quality (and child outcomes) were in integrated centres
that fully combine care and education, these settings, now known as Children’s Centres have been pivotal to the new vision of early child care services. Children’s Centres, (part of Sure Start) in addition to providing and co-ordinating childcare, also support parents through a range of advice services (job seeking, parenting and study support). The policy expansion in this area has been profound, “525,000 additional childcare places have been created, benefiting 1.1 million children” (HMT, 2004, p22), 1,279 Neighbourhood Nurseries have been opened (HMT, 2004, p26), and 2,599 Children’s Centres will be in place by 2008 (p1) with the promise of a “Children’s Centre in every community by 2010” (HMT, 2004, p33). This is educational expansion in unprecedented terms and has much of EPPE’s recommendations have subsequently been subsumed into the ‘Every Child Matters’ agenda (HM Government, 2004).

Policy Question 6 – What kind of workforce?

In order to ensure quality the Strategy is clear that the Government has "a commitment to radical reform of the early years childcare workforce through a new qualification and career structure" (HMT, 2004, p43). This is to be achieved through a £125 million Transformation Fund to improve the workforce. The long term vision seeks out to "ensure that all full daycare settings are led by a graduate qualified early years professional... and there will be single qualification framework and greater opportunities for existing workers to increase their skills." (HMT, 2004, p45). In many Local Authorities this has meant a reconfiguring of the workforce to see how qualified teachers can be employed strategically across a number of settings. This is partly based on the EPPE finding that qualified teachers were associated with better quality practices (Sylva et al 2004).

DISCUSSION

The examples above show that the EPPE project contributed to policy development by providing sound and persuasive research evidence. It could be argued that the EPPE research was ‘pushing on an open door’ in policy development in that its finding coincided with the need to develop early years education and care. Whilst the time was ripe for reform to this non-statutory sector the counter argument is that without this research evidence base the extent and speed of the reform (made possible by the Treasury) would have been more precarious. EPPE has provided information across Government departments and has informed successive Treasury Spending Reviews.

The last decade has seen an irreversible change to the three agenda’s identified at
the beginning of this paper and EPPE has contributed to all three. The 'socio-economic agenda' has changed significantly with extra investment in disadvantaged communities. The current challenge is to focus on strategies that will improve the lives of children still living in poverty and those from ethnic minority families who are overrepresented in disadvantaged groups. EPPE has sought to contribute to this by providing evidence to the Cabinet Office's investigation into equality (EPPE 3-11 Team, 2007) across the life course. The 'standards agenda' has broadened with an interlocking curriculum from aged 0 - 6 years old and a new focus on 'education' for under 5's. EPPE has identified important day-to-day practices that can assist practitioners in improving curriculum and pedagogy (Siraj-Blatchford et al 2002; 2003). The development of the workforce is crucial in delivering the 'standards agenda' and it will be interest to see if the implementation of the Early Years Professional (CWDC, 2006) qualification for staff will live up to its promise of improving quality. The 'research agenda' has also been transformed. The availability of more extensive background information, such as post code demographics and more sophisticated analysis techniques (growth curve modelling) enable us not only to study the impact (and size) of a range of factors but how factors interact with one another. EPPE continues to work at the cutting edge of these developments (Melhuish et al., 2006). The research challenge is to see how emerging results from a number of longitudinal studies (LYPSE, ALSPAC etc.) can be synthesised for meaningful patterns and trends that have policy relevance (e.g., personalized learning, the development of 'soft' non-cognitive skills etc.)

EPPE has influenced policy because its findings are large scale and broadly representative, longitudinal and based on 'value added' analyses that established the measurable contribution of a range of influences on children's development. This has proved important to policies which identify the relative costs and benefits that might be expected to accrue from investments of public money to enhance public services.
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