

# Developing pedagogy in infant classes in primary schools in Ireland: learning from research

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The need for change and development in pedagogical approaches in infant classes in Ireland is clearly indicated by a number of recent reports. These reports, reviewed here, present a picture of pedagogy in infant classes as overly formal, insufficiently interactive and incoherent with current knowledge about learning in early childhood. Future developments in early childhood pedagogy will need to be informed by research identifying the most effective and appropriate pedagogical strategies. Such research has been carried out in the United Kingdom and findings are discussed here. Also reviewed are the findings of studies which focus on the challenges experienced by some UK early years practitioners as they sought to develop and change their pedagogy in response to curriculum initiatives in the area of early years education. While the studies reviewed were not carried out in Ireland, findings have implications for directing and supporting pedagogical developments in infant education in primary schools here. Arising from the research reviewed, some indicators of effective pedagogy are outlined, and it is suggested that these can be used to signpost improvements in pedagogy by teachers in infant classes in primary schools.

Keywords: infant classes; pedagogy; interactions; whole-class teaching; small-group teaching

## Introduction

It has been observed by commentators that early childhood education – that is, the arrangements for the education and care of children from birth to statutory school age (age six in Ireland) – is high on the political agenda almost everywhere (Aubrey 2004; Gammage 2006). Ireland is no exception.

Children in Ireland can be enrolled in primary schools from the age of four, and currently half of all four-year-olds and almost all five-year-olds experience their early education in infant classes in primary schools. Also, there are approximately 1600 three-year-old children, deemed to be at risk of educational disadvantage, enrolled in half-day pre-school sessions in Early Start units in primary schools. It is clear then that early childhood education is very much a function of primary schools, with approximately one quarter of all teachers involved in this aspect of primary education at any one time.

A recent study on attracting, developing and retaining effective teachers (OECD 2005) highlighted concerns in many countries about teacher quality. Writing in the context of the United Kingdom, Siraj-Blatchford argues that, when considering the

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issue of quality in the early years, the pedagogy adopted by the teacher should be considered closely. She defines pedagogy in the following terms:

the practice (or the art, the science, or the craft) of teaching ... [it] refers to the interactive process between teaching and learning and the learning environment (which includes family and community). (Siraj-Blatchford 2004, 138)

A number of recent reports on early childhood education in Ireland have drawn particular attention to the fact that early childhood pedagogy is a critical element of professional practice (Coolahan 1998; OECD 2004). This reflects a general concern, evident in a number of countries, with articulating the type of pedagogy best suited to the youngest children attending educational settings, including schools, where applicable. For example, in the United States, a high-level committee was established by the National Research Council of the National Academy of Sciences to examine all aspects of early childhood pedagogy for children aged two to five years of age and to make recommendations related to the way forward (Bowman, Donovan, and Burns 2001).

### Current influences on pedagogy in early childhood education

#### The influence of socio-cultural theories

Recent theoretical developments in understandings of learning have influenced what eminent theorists in early childhood education refer to as 'a theoretical seachange' (Anning, Cullen, and Flear 2004, 1). This change saw 'individualistic developmental explanations of learning and development replaced by theories that foreground the cultural and socially constructed nature of learning'. In their analysis, Anning, Cullen, and Flear point out that the professional language of early childhood education is replete with terminology and understandings from socio-cultural perspectives and these have come to form part of its knowledge base. The roots of socio-cultural perspectives are to be found in the writings of the Russian psychologist Vygotsky (1978, 1986). He argued that children are cultural beings, living in particular communities at particular times, and living and constructing a particular history. Socio-cultural perspectives take into account the social, historical and cultural dimensions of everyday activities and seek better to understand children taking each of these dimensions into account. Anning, Cullen, and Flear (2004) point out that current theorising from a socio-cultural perspective reflects at least three sources of academic debate: analyses of Vygotskian theory; post-Vygotskian theoretical developments; and recent discourses regarding the complementary nature of individual and social explanations of learning. Insights from these provide the theoretical underpinnings of current conceptions of early childhood education, with early childhood theorists drawing out their implications for early childhood in terms of pedagogy, knowledge, assessment and quality.

Leading theorists in the field have encouraged and urged early childhood educators in general towards a socio-cultural approach in their practices (e.g. Anning, Cullen, and Flear 2004). Such an approach conceives of effective practice as practice that is built on the construct of the learner as active, and as an equal partner in any transaction. In a socio-cultural approach, the learner is foregrounded and adult and child learners are seen as situated in particular social, cultural and historical contexts. Learning is constrained/limited by the beliefs, artefacts

and practices of the particular context in which learning is taking place. It is marked by a proactive pedagogical approach in which the teacher promotes learning through active engagement with the learner; interactions that occur between learners are seen as critically important for learning; knowledge is understood to be co-constructed between learners; and the context in which learning is taking place is central. The relationships that mediate learning are seen as an important focus for the evaluation of quality, and collaboration between the child and peers is valued, as well as that which occurs between the child and adults. Dialogue is important from a socio-cultural perspective, and conversations with and between children are viewed as occurring in joint activity contexts that promote dialogic enquiry and knowledge building.

Thus, in socio-cultural theory the role of the teacher is seen as central since it is the teacher who enables the learning to take place by actively engaging with the learner, the curriculum and the learning context. The pedagogy required is both proactive and interactive. Pedagogical strategies include ensuring a balance between learning that is controlled by the child and learning that is controlled by the teacher, and ensuring opportunities for children to interact with each other in appropriate ways - for instance, in small-group activity, including play.

#### The outcomes of early childhood education

It is recommended that in early childhood education, the emphasis should be on intellectual rather than on academic goals (Katz 2003). Intellectual goals emphasise reasoning, the process of reflection, the development and analysis of ideas and the creative uses of the mind. In contrast, academic goals emphasise learning of skills rather than the deepening of understanding and encourage children to take a passive rather than an active role in their learning. MacNaughton and Williams (1998) see the difference in pedagogy as being about the emphasis on meaning rather than the acquisition of facts.

Internationally, priorities for early childhood education have now changed somewhat in comparison to the priorities that dominated from the 1970s to the 1990s. During those decades, for example, policy emphases in the United Kingdom generally focused on the role of early childhood education as a way of reducing educational and social disadvantage or as a means of preparing children for school (Anning and Edwards 1999). In the case of Ireland, official policy, as outlined in 1999, reflects this perspective on early childhood education (Government of Ireland 1999a), even though by this time many developed countries were implementing a universal system of early childhood education, or as in the case of the United States, moving towards the idea of universal provision (Bowman, Donovan, and Burns 2001). Research indicating the capability of young children as learners, and the findings that educational experiences in the early years can be important determinants of later learning, were largely responsible for this new perspective (Bowman, Donovan, and Burns 2001). The development of general learning dispositions in early childhood is now considered internationally to be a very high priority (e.g. Dweck and Leggett 1988; Bertram and Pascal 2002; Carr and Claxton 2002).

There is now a growing recognition that in relation to the central processes of communication such as literacy and mathematics, early childhood is as much

concerned with understanding in a general sense what literacy and mathematics are all about, as it is about learning the skills that contribute to overall understandings. These are the years when children's 'metacognitive frameworks' (Munn 1994, 1997) – that is, their general understandings of what these processes are all about – are developed.

The centrality of play to young children's learning has long been recognised, and a pedagogy of play is generally regarded as appropriate for children in the early years (e.g. Bowman, Donovan, and Burns 2001). Much of the literature on play pedagogy now seeks to illustrate how this is appropriate for young learners. It is recognised as fitting with the lively, inquisitive and exploratory nature of young learners (Moyles, Adams, and Musgrove 2002). Recent years have also seen increasingly compelling arguments that seek to articulate the importance of play for young children's learning across the curriculum (e.g. Roskos and Christie 2001; Wood and Attfield 2005). There is a recognition that the outcomes of play are holistic and that play must be assessed in a manner that recognises this (Moyles 2005; Wood and Attfield 2005).

In relation to assessment, assembling portfolios and the documentation of children's experiences are important processes in a 'credit' approach to assessment. Anning, Cullen, and Fler report that assessment theory and practice in early years settings has evolved significantly over the past five years. They assert that 'socio-cultural theory has been influential in guiding the early childhood profession towards a more community-spirited approach to documenting children's learning' (2004, 93). For instance, the learning story approach to holistic assessment in the early years (Carr 2001) encourages teachers to assess the child as a learner in specific contexts rather than on achievement objectives and skills. In the New Zealand context, the learning stories approach was seen to be one that empowers learners, communities and families. This is consistent with an open-framework approach to curriculum of the type currently being designed by the National Council for Curriculum and Assessment (NCCA) for use by early childhood educators in Ireland (NCCA 2004). However, it has also been observed that re-styling and re-theorising assessment practices is a challenging task for teachers and it has been seen to be problematic where attempted. A dynamic approach that is context-rich appears to be what is required. However, this necessitates the documentation of broader data on children's learning, data which are clearly culturally embedded and which require teachers to consider 'the whole socio-cultural context' when assessing learning (Fler and Richardson 2004, 132).

## Researching and developing effective pedagogy for young children

### Characterising effective pedagogy

It has been suggested that the difficulties generally associated with isolating and measuring process quality indicators such as interactions and relationships have meant that the key role of the teacher in quality provision for infant-age children hasn't been the focus of much research internationally (Anning, Cullen, and Fler 2004). The complexity of early years pedagogy is demonstrated in the framework developed by Moyles, Adams, and Musgrove (2002). They identified three interconnected and interrelated areas of focus in considering pedagogy – namely,

practice (context, interactions, planning), principles (teaching and learning, entitlements, roles) and professional dimensions (qualities, thinking, knowledge). Researchers in the United Kingdom investigated the relationship between process indicators of quality – that is, ‘measures of actual programme experiences by children, such as the social relationships and the interactions between staff and children’ (Fleer, Anning, and Cullen 2004, 186) – and long-term cognitive outcomes for children. This task was undertaken in two major research projects. Findings from these studies provide evidence in relation to some of the specific factors that constitute quality teaching in the early years. Details in respect of excellent settings are provided in the Effective Pedagogy of Preschool Education (EPPE) report (Sylva et al. 2004). The related Researching Effective Pedagogy in the Early Years (REPEY) report (Siraj-Blatchford et al. 2002) focuses on effective pedagogy.

Siraj-Blatchford (2004) describes how the EPPE study identified effective settings by measuring child development (cognitive and social development) from age three to seven and by controlling for child and family variables such as socio-economic class. Systematic evaluation of preschools was also carried out and a number of ‘quality characteristics’ were identified that correlated strongly with highly effective settings. These included adult-child verbal interactions; differentiation and formative assessment; parental partnership and the home learning environment; and discipline and adult support in talking through conflicts. Those characteristics were then investigated further in the REPEY study, where 14 in-depth qualitative case studies of good/excellent settings were carried out. All of the settings in this study had sound leadership, good communications, and shared and consistent ways of working amongst the staff. Most settings combined both curriculum-based pre-planned teacher-initiated group work with an open-framework, and teacher-supported free-choice provision. Most of the pedagogic interactions observed were good but some were excellent. Excellent settings achieved a balance between opportunities provided for children in terms of teacher-initiated group work and opportunities for children to benefit from the provision of what Siraj-Blatchford et al. (2002, 12) refer to as ‘freely chosen, yet potentially instructive play activities’. The evidence suggested no one effective pedagogy, but the effective pedagogue was seen to orchestrate a pedagogy by making interventions that were suitable to children’s potential level of learning and to the concept or skill being ‘taught’.

In analysing the pedagogy of a setting, the REPEY study makes a clear distinction between pedagogical interactions (face-to-face encounters) and pedagogical framing (the ‘behind the scenes work’) (Siraj-Blatchford et al. 2002, 23). The excellent settings were seen to provide both pedagogic framing and pedagogic interactions. See Figure 1 for a more detailed explanation of this distinction.

The observations on which the findings of REPEY were based were focused on the inner and middle layers of the pedagogical model. Katz (2003) also endorsed a key focus on interactions and she urged teachers to focus their energies on their interactions with children so as to provide them with experiences that are interesting, engaging and meaningful.

In the REPEY study, all pedagogic interactions made during the observations were categorised and coded into one of seven categories. See Figure 2 for a fuller explanation of how the categories were related.

When the different patterns of pedagogic interactions were analysed, children in excellent settings were seen to experience different patterns to those in good settings.

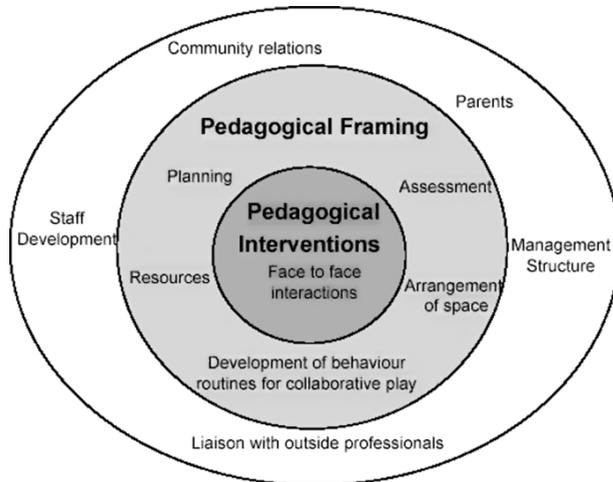


Figure 1. Pedagogical model (Siraj-Blatchford et al. 2002, 24).

The findings of both EPPE and REPEY revealed that the excellent settings encouraged relatively more ‘sustained shared thinking’. By this is meant:

an episode in which two or more individuals ‘work together’ in an intellectual way to solve a problem, clarify a concept, evaluate activities, extend a narrative etc. Both parties must contribute to the thinking and it must develop and extend thinking. (Sylva et al. 2004, 36)

Extending child initiated interactions was seen to be very important for effective teaching. These were found to be ‘a necessary pre-requisite for the most effective early years settings’ (Siraj-Blatchford et al. 2002, 11). Sustained shared thinking involves many of the skills traditionally associated with direct teaching – for example, modelling, asking ‘good’ questions, explaining and demonstrating. Not surprisingly, the best opportunities for extending children’s thinking were often seen to be during children’s freely chosen play activities. However, the findings of REPEY indicate that interactions resulting in ‘sustained shared thinking’ do not happen very frequently.

Effective early childhood pedagogy, then, is highly complex. It can be conceptualised in terms of practices, principles and professional dimensions. Key

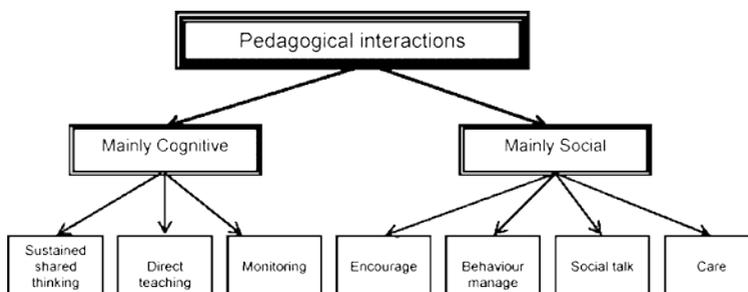


Figure 2. Pedagogical interactions (across all settings and curricular areas) (Siraj-Blatchford et al. 2002, 50).

practices or pedagogical strategies have been identified as highly effective. At the core of these is the quality of the interactions between teacher and child.

#### Research on pedagogy in infant classes

The OECD Thematic Review of Early Childhood Education and Care Policy in Ireland (OECD 2004) delineates the types and coverage of early childhood education and care provision in Ireland. The report describes infant classes in primary schools as providing for both the education and care needs of half of all four-year-old children and almost all five-year-old children. In describing what the report termed as 'the reality of quality on the ground' (58), the overall impression gained by the OECD team was one of

whole class teaching, with children sitting quietly at tables. The approach appeared to be directive and formal compared to practices observed and theoretically underpinned in other countries, where more explicit emphasis is based on exploratory learning and self-initiated, hands-on (as opposed to table-top) activities. (OECD 2004, 58)

It has been observed elsewhere that the prevalent daily need to control children in an orderly fashion often means that teachers rely on a few tried-and-tested methods to accomplish this (MacNaughton and Williams 1998). In view of the relatively large class sizes in many schools, whole-class teaching may well be used by teachers in Ireland as a controlling device. Anning (1998) has observed that early childhood teachers in the United Kingdom have resorted to such teaching in desperation rather than by conviction.

The OECD Thematic Review team observed what they described as 'a predominately didactic approach towards early learning' (OECD 2004, 84) in infant classes in Ireland. They described provision in infant classes as characterised by a focus on literacy- and numeracy-related activities, with evaluation criteria narrowly focused on cognitive outcomes, and the early introduction of written symbolisation. Commenting on the provision for learning, the report stated:

in few schools did we find a role-play area, a nature or biology area, sand and water, an art area (broader than painting), a construction area or recycled material ... 'Play' was often used as a means of delivering a curriculum goal or a pre-academic skill, and the place of 'free play' in the schedule of the day seemed rather limited. In general the pedagogy was not focused on the observed interests of the children but sought to interest them in the concerns of the teacher. (OECD 2004, 59)

In short, what the OECD team observed was a teacher-centred rather than a child-centred pedagogy. They concluded that the impetus driving pedagogy was a prescribed curriculum, with little account being taken of children's interests or concerns. In the primary curriculum (Government of Ireland 1999b), very specific content objectives are specified for all curriculum subjects. This has undoubtedly contributed to many infant class teachers focusing on these as their chief pedagogical concern, rather than the interests of the children. The OECD report goes on to identify the issues of teacher:pupil ratio (1:29 in 2004) and class size as considerable barriers to quality since they militate against meeting young children's learning needs in any meaningful way. The review promoted a general principle of providing the lowest ratios for the youngest children, with a gradual increase as children mature.

While lower ratios will not guarantee quality provision in infant classes, they have been reported as making what Anning, Cullen, and Fleer (2004, 185) refer to as 'a significant contribution' to outcomes for young children in some countries.

The observations made in the OECD report, on pedagogy in infant classes in Ireland, are reiterated in the findings of a study of curriculum implementation in 15 Irish infant classrooms (Murphy 2004). The author observed that senior infants (on average between five and six years old) spent less than one fifth of their time (18.3%) engaged in play activity. Moreover, just one third of this 18% was judged to be intellectually stimulating. Numeracy activity and practice were observed by Murphy to be overwhelmingly teacher-directed and -focused, with widespread use of textbooks and workbooks. It appeared that the approach to the development of writing at infant level had remained traditional, failing to embrace the overall process writing approaches and activities outlined for teachers in the curriculum documentation. In relation to reading, however, Murphy (2004, 252) reported more positive findings, with 'practices in this area more in tune with the newly advocated, less traditional approaches'

In common with the observations made in the OECD report, Murphy's study also revealed a prevalence of whole-class teaching. Much of the classroom activity was seen to be teacher-focused and as a consequence, children were observed waiting for considerable periods of time, on either the teacher or other children who were completing activities. Murphy observed that in classrooms where there was a prevalence of whole-class teaching teachers seemed to be more sceptical and dismissive of the need for any changes in practice. In discussion with the teachers, Murphy uncovered a lack of knowledge and understanding of the required practices as outlined in the curriculum. He concluded that the fundamental issue influencing practice in infant classes was teachers' personal beliefs and experiences, rather than guidance about pedagogy in curriculum documentation.

In its review of the implementation of aspects of the primary curriculum, the NCCA (2005) also identified a relative lack of the use of play as a learning medium, even amongst teachers of the youngest children. Leading theorists in the field (e.g. Wood and Atfield 2005) suggest that practitioners need a secure theoretical and pedagogical underpinning for play in order to ensure that they understand and use play pedagogy.

What all of these reports reveal is that, in general, infant teachers in primary schools, for whatever reason, are adopting an inappropriate approach to teaching and learning in infant classes. In general, they are not providing young children in schools with the range of learning experiences that match their learning characteristics and which research has clearly indicated to be most necessary and advantageous in terms of optimal development and learning. Whole-class teaching dominates, rather than a balance of this with small-group work. It appears that teachers need considerable support in implementing a pedagogy that provides opportunities for children to learn through play. An interactive pedagogy needs to replace the overly didactic pedagogy that has been observed in many infant classrooms. It is essential that children's interests and concerns are considered in planning learning activities and experiences, and careful consideration of these in relation to curriculum principles and aims is indicated. In particular, the implementation of pedagogic strategies that encourage interactions between children

and the establishment of sustained shared thinking between teacher and children are critical.

### Changing and developing pedagogy in infant classes

#### Learning from others: the UK experience

In September 2000, the Foundation Stage was implemented in schools in England. This established the principle of a play-based curriculum as part of school provision for young children aged three to five years. The Foundation Stage is now part of the national curriculum in England and it is concerned with the education of children aged three to the end of reception year (age 5 approximately). It is aimed at eliminating inappropriately formal instruction in reception classes and replacing it with more suitable pedagogical practices, leading to more appropriate learning experiences for children.

Murphy's (2004) study revealed that, in the Irish context, educational change in infant classes couldn't be achieved simply by issuing new curriculum statements. In England a similar conclusion by Moyles, Adams, and Musgrove (2002) led them to develop a framework for effective pedagogy. They intended this to accompany the Curriculum Guidance for the Foundation Stage (QCA 2001). According to the authors of the framework:

it establishes the range of competencies, values, beliefs and characteristics that constitute early years pedagogy and represents the things practitioners need to consider to implement the curriculum most effectively. As such it can be used to help define, refine and develop pedagogy ... (Moyles, Adams, and Musgrove 2002, 60)

The extent to which the framework is being used in practice is not clear as yet, but such a support seems to be a crucial element in enabling teachers to examine their practice and select aspects for improvement.

As might be expected, the introduction of the new Foundation Stage and the effects of the curriculum guidance that accompanied it has been the focus of a number of research studies, including the EPPE and REPEY studies reported above. Some other smaller scale qualitative studies, which focused on practice, also revealed a number of interesting findings with respect to how teachers in primary schools in England embraced the new pedagogical practices promoted in the curriculum guidance for the Foundation Stage.

For instance, Adams et al. (2004) set out to ascertain if and how the establishment of the Foundation Stage was changing practice in reception classes in schools. Case studies of nine classes were carried out in the second year after the new stage was implemented. The classes were all recommended to the researchers for their good practice by local inspectors. The authors referred to the difficulties related to the making of evaluative judgements regarding the quality of what was on offer in such classrooms. They observed:

When children are demonstrably secure, happy confident, even joyful, it is not necessarily an easy task to ask oneself whether they are, in fact, experiencing a challenging and worthwhile curriculum. (Adams et al. 2004, 27)

Both the relationships between adults and children and the general physical environment were of a high quality. However, the pedagogy observed was

inappropriately 'formal' and seen to be dominated by lessons, subjects, timetables and tightly defined learning objectives. The daily rhythm of classroom life generally observed in the above study was described as being 'made up of long, inactive plenary sessions working through a list of learning intentions, an over-riding emphasis on literacy and numeracy (usually taught in the morning) and limited and time-tabled access to the outdoors' (Drummond 2004, 105). Children in reception classes had limited opportunities to engage in key processes that contribute to a challenging and worthwhile curriculum. Also working with the same data, Adams et al. (2004, 22) remarked that opportunities for sustained, shared purposeful talk, complex imaginary experiences, and authentic engaging first hand experiences were 'few and far between'.

Aubrey (2004) reported findings from a study that focused on reception-class teachers' reports of their pedagogical practices with children in the Foundation Stage. This study, in common with that of Adams et al. (2004), was also carried out in the second year after the establishment of the Foundation Stage. A telephone survey of a nationally representative sample of schools sought to investigate the challenges faced by those seeking the successful implementation of the Foundation Stage in reception classes in England. The findings revealed that a significant number of teachers were still uncertain about the broader pedagogical approaches being advocated, and with play as a key strategy for learning. This finding is very likely to be mirrored in Ireland when the new framework for early learning is implemented (NCCA 2004). The expectation is that will be in 2008. Early childhood teachers in Ireland are also very likely to be uncertain about the pedagogical approaches being advocated since they will be relatively unfamiliar with recent (socio-cultural) developments in ideas about learning in early childhood and with consequent developments in ideas about effective pedagogies. In Aubrey's (2004) study, the greatest concerns were expressed in schools with mixed-aged classes, teaching two curricula with two contrasting pedagogical styles. This has implications for schools in Ireland since in this country too, many schools have classes organised on a mixed-aged basis. Aubrey (2004) also observed that a wide range of teaching strategies are required to motivate, support and extend children appropriately in the early years at school. The evidence from her study was that qualifications and training for the specific approaches best suited to teaching young children in the age range three to six years were very important. The role of the principal teacher was also seen to be key in any developments in pedagogical practices.

There are a number of lessons that can be learned from the UK-based studies reported here. Teachers of infant classes in Irish primary schools, and the children they teach, appear to be positioned between two very different approaches to pedagogy, curriculum and learning. Teachers, by the nature of their professional preparation and their experience with teaching children of different ages, have very well-developed skills in relation to interactive teaching (e.g. scaffolding, modelling, questioning). These skills need to be utilized more extensively and intensively when teaching the youngest children at school - for instance, in the context of small-group work. The application of these interactive skills in the context of appropriate early education in primary schools is essentially what is required for effective pedagogy with young children. This is achievable if infant teachers in Ireland receive supports in the form of extensive in-service education, appropriate guidance on pedagogy and structural supports in the form of resources and informed management and

inspection systems. Some of these supports are now being put in place and these are described below. However, others have not yet been secured.

### Promoting and supporting pedagogy in infant-classes in Ireland

The curriculum for primary schools delineates the prescribed content and the approaches which teachers should adopt right across the primary school, including infant classes. It is presented in six subject areas comprising eleven subjects. The documentation consists of a general introductory text, Primary School Curriculum: Introduction (Government of Ireland 1999b; <http://www.ncca.ie>), wherein key aims, principles and features of the curriculum are explained. These underpin teaching and learning in all curriculum subjects. In addition, a curriculum document (that contains content objectives and strands/strand units) and teacher guidelines is provided for each curriculum subject. The curriculum emphasises the importance of the child as an active agent in his/her own learning and of learning being conceived and presented in a holistic way. It also emphasises the uniqueness of the child. The primary curriculum suggests the use of a theme/topic approach to planning learning experiences for younger children. A recent survey on curriculum implementation revealed that some teachers do not use the curriculum documents when planning, but often determine what children should learn through consultation with textbooks or commercially produced materials (DES 2005). A series of short in-service courses designed to support teachers at all class levels in implementing the curriculum subjects was offered between 1999 and 2006. The focus of this in-service programme was on familiarising teachers with developments in particular subject areas, and the incorporation of some new pedagogical strategies was encouraged to enable teachers to incorporate new emphases into their teaching (<http://www.pcsp.ie>).

The lack of specific curriculum guidance to support the teaching and learning of the youngest children in this country has been identified as problematic (Government of Ireland 1999a; OECD 2004). In order to address this concern the NCCA is now engaged in the process of developing A Framework for Early Learning. The consultation document (NCCA 2004) clearly signals the intention to move towards an open-framework curriculum for the first stage of education (i.e. from birth to six years). The presentation of intentions for learning using such a model is very much in keeping with the general direction towards open framework curricula for early years education and follows practice in a number of progressive countries (e.g. the Te Whariki curriculum framework developed in New Zealand). The proposed model presents learning using the four themes of well-being, identity and belonging, communication, and exploring and thinking. It establishes broad principles for children's learning, and principles of how the practitioner might support such learning. This presentation is an attempt to reframe the learning experiences of young children around processes rather than around subjects, and in the case of infant classes in primary schools, to move from a teacher-centred pedagogy to a child-centred one. The use of such a framework encourages professional autonomy and diversity since ways in which the curriculum themes are to be developed are not specified but are left to the discretion of the teacher.

A socio-culturally oriented curriculum such as that proposed by NCCA presents a number of challenges in relation to evolving appropriate pedagogic strategies and coherent assessment practices. Certainly, this has been the experience elsewhere

(Anning, Cullen, and Flear 2004). The holistic curriculum philosophy that is guiding the proposed Framework for Early Learning is one that sees knowledge as constructed by children and adults together, rather than as predetermined. This changes the nature of the relationship between children and adults, introducing into it some new dimensions, such as a sharing of power in relation to what is to be learned and how it is to be learned. In the socio-culturally oriented framework curriculum, young children are characterised as active rather than passive, independent rather than dependent and powerful rather than powerless. The learning outcomes of such a curriculum are not tightly structured objectives but rather the development of children's theories about their world, about the people and artefacts in it and, crucially, the development of their dispositions to learn. Such an approach is very demanding of teachers since it requires of them a very strong pedagogical content knowledge and high levels of pedagogical skills.

Siolta, the National Quality Framework for Early Childhood Education (NQF) (CECDE 2006), presents the agreed set of principles and standards of quality for early childhood education. A number of these relate directly to aspects of pedagogy. The NQF is aspirational in nature, it represents a set of quality assurance criteria and it is based on a consensus across the early years sector. This framework will provide an important source of support for infant teachers as they develop their pedagogical practices in line with recent theoretical developments and empirical evidence. It will also guide and support management in schools as they seek to encourage infant teachers to adopt the most suitable pedagogical strategies.

#### Indicators of effective pedagogy in infant classes

Moyles, Adams, and Musgrove (2002) suggest that 'effectiveness' might be viewed as a whole rather than particular aspects taken in isolation from each other. They argue that early childhood pedagogy is

an extremely complex phenomenon comprising a wide variety of practices underpinned by principles acquired through training and as a result of professional experiences and understanding. (Moyles, Adams, and Musgrove 2002, 130)

Of course, the complexity of early years pedagogy should not be understated, and pedagogy for early childhood teaching cannot be reduced to a simple list of competencies. However, the findings reviewed here enable us to go some way in profiling the effective early childhood teacher and in describing the type of strategies that are most effective in enabling young children's learning on a day-to-day basis. Such a teacher is likely to be one who:

- . Enjoys a high level of engagement with teaching young children (Moyles, Adams, and Musgrove 2002; Siraj-Blatchford et al. 2002)
- . Understands the cognitive, cultural and social perspective of individual children and uses this knowledge to guide their participation in learning experiences (Moyles, Adams, and Musgrove 2002; Siraj-Blatchford et al. 2002)
- . Is able and willing to take cognisance of a child's perspective on the learning environment (Moyles, Adams, and Musgrove 2002; Adams et al. 2004)

- . Plans in a flexible manner to ensure that children's emerging interests, concerns and needs are addressed sufficiently (Moyles, Adams, and Musgrove 2002; Siraj-Blatchford et al. 2002; Adams et al. 2004)
- . Is pro-active in terms of planning and organising teaching and learning (Siraj-Blatchford et al. 2002; Adams et al. 2004)
- . Seeks to ensure that there is a balance between adult-led interactions and child-led interactions (Siraj-Blatchford et al. 2002)
- . Is skilled in the use of discussion with children and in the use of strategies which promote higher order thinking (Moyles, Adams, and Musgrove 2002; Siraj-Blatchford et al. 2002; Adams et al. 2004)
- . Creates opportunities for extending child-initiated play and teacher-initiated group work (Moyles, Adams, and Musgrove 2002; Siraj-Blatchford et al. 2002)
- . Is sensitive to the extent of the guidance required by children in any particular context (Moyles, Adams, and Musgrove 2002; Siraj-Blatchford et al. 2002; Adams et al. 2004)
- . Ensures that children have opportunities to work individually with the teacher, in small groups and occasionally in larger groups (Moyles, Adams, and Musgrove 2002; Siraj-Blatchford et al. 2002)
- . Is skilled at providing for and intervening in children's play (Moyles, Adams, and Musgrove 2002; Siraj-Blatchford et al. 2002; Adams et al. 2004)
- . Seeks to ensure a balance of play with teacher-planned activity (Moyles, Adams, and Musgrove 2002; Siraj-Blatchford et al. 2002)
- . Ensures that children have opportunities to pursue specific interests (Moyles, Adams, and Musgrove 2002; Siraj-Blatchford et al. 2002; Adams et al. 2004)

In summary, there is considerable agreement amongst the UK studies reviewed here that the highly effective early childhood teacher is skilled in the use of a range of pedagogical strategies; can use them as appropriate; is knowledgeable about current learning theory; appreciates the processes through which young children learn; appreciates the central role of teaching in early childhood education; and is highly skilled in responding to children and interacting with them to promote learning and development.

## Conclusions

This review shows that we now know a good deal about effective pedagogies for teaching three-, four- and five-year-old children. While such pedagogies are highly complex, involving as they do both pedagogic framing and pedagogic interactions, it is clear that particular interactive practices are vital. The ability to select pedagogic strategies as appropriate to context and purpose is important and establishing sustained shared thinking characterises excellent pedagogy. The vision for early childhood education, then, is one wherein responsive teachers utilize interactions within appropriate environments to promote children's learning as they engage in challenging, interesting and worthwhile experiences. The pedagogical framing ensures a balance of whole-class and small-group learning opportunities, and high-quality interactions that promote higher order thinking skills are a discernible feature of the classroom interactions.

We know also that there are a number of problems with current pedagogical approaches in infant classes in Ireland. These can be addressed by developing pedagogy in line with current theories of how young children learn. This will entail a move away from the emphasis on whole-class teaching and the establishment of a balance of this approach with small-group teaching. There is also need to balance teacher-initiated activity with child-initiated activity. Teachers need to employ a 'playful' pedagogy and children need to have frequent opportunities to engage in the full range of play activities. This will necessitate teachers engaging with socio-dramatic play (where children engage in pretend play with others) as a tool for both learning and teaching. The use of the environment as a site for learning and teaching needs to be fully exploited by providing children in infant classes with many opportunities to go out and about, see things and meet people. Teachers need to operate a flexible timetable in order to respond to valuable learning opportunities as they occur. Teachers also need to establish children's real interests and seek to negotiate between these and the prescribed curriculum. The provision of rich literacy experiences based on talk and discussion and on story and on rich mathematical experiences designed to develop children's understandings of everyday uses of number are essential. Above all, teachers of infants need to engage children in conversations that lead to sustained shared thinking and consequently to development and learning.

This is highly complex and skilled work and subsequent demands on teachers and schools should not be underestimated. From research in England we know something of the challenges that arise when seeking to ensure widespread use of effective pedagogy in early childhood education. We need to consider how we can use these lessons in order to facilitate the development of pedagogy in infant classes in primary schools in Ireland. The proposed framework for early learning (NCCA 2004) will articulate principles and goals for early childhood education. Engagement with these will encourage reflection on pedagogy and supporting documentation will give teachers some understanding of the rationale for change. Sioltá, the National Quality Framework, clearly sets out the context within which early learning is best promoted. However, structural supports are also needed. This will mean substantial investment in pre-service and in-service education for teachers of infant-aged children, but also for those in leadership positions in schools. Teacher-development work will need to emphasise particular ways of structuring educational provision in infant classes and of interacting with young children in schools. Opportunities for early childhood teachers to articulate their practices and reflect on them have been seen to be a necessary prerequisite for considering changes to practice and improvements in pedagogical skills (Moyles, Adams, and Musgrove 2002). The most effective practices are predicated on low pupil:teacher ratios. Improvements in this area are critical to enable teachers to engage in the high-quality interactive strategies known to be most effective for young children's learning.

## References

- Adams, S., E. Alexander, M. Drummond, and J. Moyles. 2004. Inside the foundation stage: Recreating the reception year. London: Association of Teachers and Lecturers. ATS website: [http://www.atl.org.uk/atl\\_en/basicsearch.asp](http://www.atl.org.uk/atl_en/basicsearch.asp).

- Anning, A. 1998. Appropriateness or effectiveness in early childhood curricula in the UK: Some research evidence. *International Journal of Early Years Education* 6, no. 3: 299-311.
- Anning, A., J. Cullen, and M. Flear, eds. 2004. *Early childhood education: Society and culture*. London: Sage Publications.
- Anning, A., and A. Edwards. 1999. *Promoting children's learning from birth to five: Developing the new early years professional*. Buckingham: Open University Press.
- Aubrey, C. 2004. Implementing the foundation stage in reception classes. *British Educational Research Journal* 30, no. 5: 633-55.
- Bertram, T., and C. Pascal. 2002. Assessing what matters in the early years. In *The foundations of learning*, ed. J. Fisher, 86-101. Buckingham: Open University Press.
- Bowman, B., S. Donovan, and S. Burns, eds. 2001. *Eager to learn: Educating our preschoolers*. Report of Committee on Early Childhood Pedagogy, Commission on Behavioral and Social Sciences and Education National Research Council. Washington, DC: National Academy Press.
- Carr, M. 2001. *Assessment in early childhood settings: Learning stories*. London: Paul Chapman.
- Carr, M., and G. Claxton. 2002. Tracking the development of learning dispositions. *Assessment in Education* 9, no. 1: 9-37.
- Centre for Early Childhood Development and Education (CECDE). 2006. *Siolta: The national quality framework for early childhood education*. Dublin: CECDE.
- Coolahan, J. 1998. *The report of the national forum for early childhood education*. Dublin: The Stationery Office.
- Department of Education and Science (DES). 2005. *An evaluation of curriculum implementation in primary schools: English, mathematics and visual arts*. Dublin: The Stationery Office.
- Drummond, M.J. 2004. Inside the foundation stage: A good life for four- and five-year-olds? *Forum* 46, no. 3: 156-7.
- Dweck, C., and E. Leggett. 1988. A social-cognitive approach to motivation and personality. *Psychological Review* 95, no. 2: 256-73.
- Flear, M., A. Anning, and J. Cullen. 2004. A framework for conceptualising early childhood education. In *Early childhood education: Society and culture*, ed. A. Anning, J. Cullen, and M. Flear, 175-89. London: Sage Publications.
- Flear, M., and C. Richardson. 2004. Mapping the transformation of understanding. In *Early childhood education: Society and culture*, ed. A. Anning, J. Cullen, and M. Flear, 119-33. London: Sage Publications.
- Gammage, P. 2006. Early childhood education and care: Politics, policies and possibilities. *Early Years* 26, no. 3: 235-48.
- Government of Ireland. 1999a. *Ready to learn*. White Paper on early childhood education. Dublin: The Stationery Office.
- \*\*\*. 1999b. *The primary curriculum: Introduction*. Dublin: The Stationery Office.
- Katz, L. 2003. The right of the child to develop and learn in quality environments. *International Journal of Early Childhood* 35, no. 1: 13-22.
- MacNaughton, G., and G. Williams. 1998. *Techniques for teaching young children: Choices in theory and practice*. Melbourne: Longman.
- Moyles, J. 2005. *The excellence of play*. Buckingham: Open University Press.
- Moyles, J., S. Adams, and A. Musgrove. 2002. *SPEEL: Study of pedagogical effectiveness in early learning*. Research Report No. 363. London: Department for Education and Skills (DfES).
- Munn, P. 1994. The early development of literacy and numeracy skills. *European Early Childhood Education Research Journal* 2, no. 1: 5-18.
- \*\*\*. 1997. Children's beliefs about counting. In *Teaching and learning early number*, ed. I. Thompson, 9-19. Buckingham: Open University Press.

- Murphy, B. 2004. Practice in Irish infant classrooms in the context of the Irish Primary School Curriculum (1999): Insights from a study of curriculum implementation. *International Journal of Early Years Education* 12, no. 3: 245-57.
- National Council for Curriculum and Assessment (NCCA). 2004. Towards a framework for early learning: A consultative document. Dublin: NCCA.
- \*\*\*. 2005. Primary curriculum review: Phase 1. Dublin: NCCA.
- Organisation for Economic Co-operation and Development (OECD). 2004. OECD thematic review of early childhood education and care policy in Ireland. Dublin: The Stationery Office.
- \*\*\*. 2005. Teachers matter: Attracting, developing and retaining effective teachers. Paris: OECD.
- Qualifications and Curriculum Authority (QCA). 2001. Curriculum guidance for the Foundation Stage. London: Qualifications and Curriculum Authority.
- Roskos, K., and J. Christie. 2001. Examining the play-literacy interface: A critical review and future directions. *Journal of Early Childhood Literacy* 1, no. 1: 59-89.
- Siraj-Blatchford, I. 2004. Quality teaching in the early years. In *Early childhood education: Society and culture*, ed. A. Anning, J. Cullen, and M. Flear, 137-48. London: Sage Publications.
- Siraj-Blatchford, I., K. Sylva, S. Muttock, R. Gilden, and D. Bell. 2002. Researching effective pedagogy in the early years (REPEY). DfES Research Report 356. London: Department for Education and Skills (DfES), HMSO.
- Sylva, K., E. Melhuish, P. Sammons, I. Siraj-Blatchford, and B. Taggart. 2004. The effective provision of pre-school education (EPPE) report: Technical paper 12. The final report: effective pre-school education. London: Institute of Education.
- Vygotsky, L. 1978. *Mind in society*. Cambridge, MA: Harvard University Press.
- \*\*\*. 1986. *Thought and language*. Cambridge, MA: MIT Press.
- Wood, E., and J. Attfield. 2005. *Play, learning and the early childhood curriculum*. London: Chapman.