

CHAPTER 1

SCHEMAS AND THE YOUNGEST CHILDREN

Introduction

This chapter reviews research on the importance of the first years in a child's learning and development. It also looks at schemas and relationships in learning. First, it considers how precious the first years of early childhood are in terms of learning and development. This is followed by a reflection on definitions of schemas. It explores the individual, isolated nature of schemas along with the relational and social. There is an examination of the characteristics of relationships within the learning environment between adult and child and the place for attuned intervention. The importance of accompanying children conceptually is examined and the complexity of the role of the adult in the learning environment is identified.

This chapter takes as its premise Malaguzzi's claim that children are 'strong, powerful, competent learners with the right to an environment which is integral to the learning experience' (Malaguzzi 1998). Nurse and Headington (1999) acknowledge the 'preciousness' of the first years of early childhood, so this chapter considers the characteristics of young children's physical and social learning environments in an attempt to reveal what may epitomise the best support for young children's thinking and learning. Nutbrown (2001: 66) confirmed the 'crucial importance' of the early years for children's learning, which David and Powell (1999: 2) recognised as 'an important period of change and development in children's thinking and ability to make sense of the world'. Within this context, the distinctive role of well-trained and well-qualified, reflective and evaluative professional practitioners is crucial to dynamic learning, alongside the unique and important role of parents in children's learning and development.

The 'Preciousness' of Early Childhood

Brierley (1994), drawing on studies of the brain, concluded that the period between birth and puberty was critical in terms of learning but that the first five years are when brain growth is particularly rapid, with the first two years being the time of most rapid growth (Friedman 2006). This 'most critical learning phase' (Shore 1997: 51) is one which 'deeply influences the rest of development' (Gopnik, Meltzoff and Kuhl 1999: 190). It is a 'unique' phase, which Hurst and Joseph (1998: 12) confirmed as the period where learning is at its 'easiest' and much of what is learned 'remains for life'. Smidt (2006) also noted the rate of brain development in the very early years, while Hannon (2003) recognised the importance to brain development of the formation of the connections which Brierley (1994) specified were key in the development of intelligence during the first three years.

Development takes place and important brain connections are made when very young children are actively involved in exploration, discovery and interactions (Learning and Teaching Scotland 2005) and, as Friedman (2006) states, the relationship between appropriate stimuli in the early years and brain development is dramatic. In their work exploring cultural communities, Wang, Bernas and Eberhard (2005) support the imperative of a personal response to children's individual priorities. They note that young children's learning potential was improved when practitioners took into account 'the diversity children bring to early childhood settings [which] enriches the learning environment, both for the teachers and the children' (Wang et al. 2005: 284). If appropriate stimuli are to be a feature of early childhood settings, then practitioners must be aware of what is 'appropriate' for each child. To effect a particular and precise response, the practitioner must take into account what is significant *for* the child, what is unique *about* the child, what makes the child the *person* they are.

Cameron (2005: 597) referred to 'empathic response cues' in her work with young children to elicit children's participation. A physical environment which motivates, supported with a perceptive, comprehending adult, is vital in supporting young children's development. Shore (1997: 51) highlighted the significance of these first physical and social encounters for the young child with 'babies' very first experiences having dramatic impacts on the architecture of their brains', which Schiller and Willis (2008) suggested were reinforced as early experiences were repeated.

Clarke and Clarke (1998: 435), in their exploration of the long-term effects of negative early experiences, acknowledged that 'different processes may show different degrees of vulnerability to adversity ... with cognitive the best buffered'. This did not absolve early years educators from accountability in terms of quality practice, but suggested that the perception of these first few years as consequential for the long term may be flawed, concluding that 'early learning effects can fade and disappear, [however] under stress such effects might be reactivated' (1998: 435).

Shore's (1997: 51) warning that 'early experiences – positive or negative – have a decisive impact on how the brain is wired' attached significance to this early phase of life. Sylva, Melhuish, Sammons, Siraj-Blatchford and Taggart's study (2011: 119) affirmed the importance of early years' experiences for young children. Their exploration of the medium- to long-term impact of pre-school quality on children's developmental outcomes found that 'high quality learning experiences at *either* home *or* pre-school setting can boost the development of children, thus acting as "protective" factors'. The influence of the environment on young children in the early years, acknowledged in its broadest connotation, is a significant responsibility to accept if children are to be nurtured appropriately. Understanding the nature of quality – what is encompassed within this and what may comprise a quality experience – is an intricate complexity, one with far-reaching implications.

Experiences impact on the brain such that 'the brain changes in radical ways over the first few years of life. ... It actively tries to establish the right connections ... in response to experience' (Gopnik et al. 1999: 195). This was acknowledged in the Department for Children, Schools and Families' (DCSF) evaluation of the Neighbourhood Nurseries Initiative, which recognised that 'the provision of educational opportunities during the early years is related to later school success' (DCSF 2007: 52).

The suppleness of the brain in the early months of life led Gardner (1984) to challenge those working and caring for young children to be aware of their response to the complex thinking, learning and developmental needs of the young child. He asserted that to 'build upon knowledge of these intellectual proclivities' was essential in practice (Gardner 1984: 32).

Selleck (2001) and Goldschmied and Jackson (2004) reminded us of this astonishing capacity for children under three years of age to learn, and Gopnik, Meltzoff and Kuhl (1999: 189) confirmed this as 'the time when we learn most and when our brains as well as our minds are most open to new experience'. Rosen (2010: 102) also confirmed this in her consideration of children's perceptions of their impact on curriculum development in stating that 'children are viewed by teachers and appear to view themselves as competent and capable – a view that underpins a children's rights approach'. There is a collective understanding of capability and an inferred responsibility here; children appear to know their own competencies and rely on the adults working with them to accept, respect and respond to these proficiencies with sensitivity, empathy and challenge.

In the light of this, Brierley (1994) suggested that early years' policy and practice should be underscored by knowledge of brain and sensory development and went further in outlining a set of principles for the education of young children in different settings. Smith, Duncan and Marshall (2005) support Brierley's (1994) understanding of the capabilities of young children's minds. They stated that 'children clearly have something useful and important to say about their activities and have the competence to tell us'. However, they

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went on to specify that adults need ‘to provide the appropriate scaffolding’ (Smith et al. 2005: 485).

Penn (2005: 37) acknowledged the value of early experiences as a foundation upon which later ones can build, but supported Hannon (2003) and Clarke and Clarke (1998) in suggesting that the notion of this being critical may be exaggerated. Penn reminded us of the adaptability of children and the possibility of change ‘in all kinds of ways at all ages’ (2005: 37). Gardner’s (1984: 33) proposal that there were ‘points of maximum flexibility and adaptability’ implied that the enduring permanency in terms of influence of early childhood experiences may be misplaced. What could be described as critical, however, was an acknowledgement of Nutbrown’s (2006) principle that children should be at the centre of the learning environment. Indeed, the curriculum for early years should be driven by a ‘learner- and person-centred ethos [which] affords children’s minds the respect they deserve’ (Nutbrown 2006: 125). This place, with the child at the centre of the learning environment, was reflected in the Department for Education’s championing of the importance of play in young children’s learning and development (DfE 2012). It recognised the complexity of play, its potential, its enabling function, its countless possibilities, and its essential role in supporting children to be themselves, whatever that may be.

Thus, if we are to capitalise on children’s potential in the early years and their ability to learn, which Brierley (1994: 29) described as ‘in a state of flood readiness’, the message is clear. Do we channel the torrent of young children’s potential with a creative curriculum and with adults being attuned to children’s needs, or do we dam the flow of possibilities with a focus on irrelevant, meaningless and inappropriate activities accompanied by well-meaning but ill-informed adults?

In considering the ‘preciousness’ of early childhood, we can see the importance of early education experiences for young children, and this has far-reaching implications. The early experiences which form the foundation for later learning include both the physical activities and opportunities to which the child has access, and the social relationships with the adults the child encounters.

Schemas

Made popular through the work of Athey since the late 1980s (see Athey 1990), understanding about schemas has become part of practice in some early education and care settings. There are many different definitions of schema but no single characterisation is able to satisfy, as no single definition encompasses the complexity and perspectives which emerge. McVee, Dunsmore and Gavelek (2005: 556) reflected this in highlighting the dichotomy between ‘the knower and the known’: from one perspective, ‘schemas are

formed within individuals ... a disembodied, in-the-head proposition', whereas from the other perspective, 'schemas (or cognitive structures or representations) are transformed as a result of transactions with the world'. This discrepancy was acknowledged by Beals (1998: 11), who asserted that 'schemata are not individual, isolated constructions, but culturally shared patterns of organising knowledge and experience', and supported by Rogoff (1990: 27), who confirmed that 'context [is] inseparable from human actions in cognitive events or activities'.

Gardner's (1984) definition of schema appeared to accept the perception of the lone, private endeavour in suggesting that the young child brings their schema to bear upon objects in the environment in an effort to come to know and understand. The child, it could be said, is involved in a personal, particularised and exclusive concern – the business of knowledge construction. Gardner (1984: 64) drew attention to the 'existence of one or more basic information-processing operations or mechanisms which could deal with specific kinds of input', which resonated with Neisser's (1976: 56) description of schema as 'a pattern of action as well as a pattern for action'.

McVee, Dunsmore and Gavelek (2005: 550) supported this active, categorising yet arbitrating notion of schema in drawing a distinction between 'schemas as an organisational feature that the mind imposes on experience and schema as a mental representation that mediates activity', which Beals (1998) confirmed in the mind's search for significant associations where new material was appropriated and made part of oneself. Both Gardner (1984) and Neisser (1976) alluded to this active nature of the schema, the modifying, adjusting characteristic, the simple notion of passive absorption into pre-existing structures rejected in the light of an acceptance of schema as a dynamic reality, a constant cognitive turbulence, a discomfort and disquiet, an unremitting process of transformation and growth.

Bartlett (1932: 85) was forthright – actually emphatic – in his discussion of this, in asserting that:

It is not merely a question of relating the newly presented material to old acquirements of knowledge ... it depends upon the active bias, or special reaction tendencies, that are awakened in the observer by the new material, and it is these tendencies which then set the new into relation to the old.

Neisser's (1976: 111) classification of schemas as 'active, information-seeking structures ... which accept information and direct action' confirmed Bartlett's notion of dynamism, which Meltzoff and Moore (1998: 229) endorsed in suggesting that the 'initial mental structures' that infants possess 'serve as "discovery procedures" for developing more comprehensive and flexible concepts'. Green (1988: 135) proposed that 'reasoning is facilitated when suitable knowledge structures (or schemata) are evoked'. This is what Bartlett (1932: 85) refers to as 'awakened', and what Neisser (1976: 111) sees as 'accepting'.

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All this suggests an attuned sensitivity to *experience* which affords either a 'match' or a 'mismatch' with inner patterns' (Athey 2007: 48).

Cheng and Holyoak's (1985: 135) understanding of the place of environment, that 'individuals reason using context-sensitive structures derived from everyday experience', with the child's organising, categorising, classifying structure (schema) sensitised and receptive to appropriate environmental stimuli, resonates with Athey's notion of 'offered and received curriculum content' (2007: 54). Birbeck and Drummond (2005: 594) noted that 'children report on what they see as important and this is not always congruent with adult interpretations'. They recognised that it was important 'to ascertain the reasons behind responses supplied by children' (2005: 594), which resonates with Athey's (2007) imperative of 'match' in that the actions which children carry out, and in the talk which may accompany this, should be interpreted as the child intends.

The literature on schemas acknowledges the complexity of definition in that no one, particular, definitive meaning has emerged. Definitions which consider the individual and social aspects of schemas have been highlighted. In this book, and in our own research, the significance is for practice, and Athey's definition of 'a repeatable pattern of behaviour' underpins our thinking about schemas and young children's learning. Adults who come to understand the particular schematic interests of young children are better able to respond to children's *forms of thinking* in learning encounters.

During the period of early childhood, Piaget and Inhelder (1969: 4) highlighted children's involvement in the construction of 'action schemes', which they described as the 'organisation of actions as they are generalised by repetition' or, as Donaldson (1978: 134) clarified, schemas as 'organised behaviour patterns which can be used intentionally through the emergence of the process of assimilation and accommodation'. The possibilities of early reflexes, such as the sucking and palmar reflex extending through 'reflex exercise' (Piaget and Inhelder 1969: 7), with early habits 'growing out of an assimilation of new elements to previous schemata', was evident (Piaget 1950: 111).

Piaget recognised the importance of early actions as a preparation for later stages, when 'active experimentation' becomes capable of being internalised. At this stage, the child is no longer necessarily immediately physically dynamic when faced with a problem, but instead 'appears to be thinking' (Piaget 1950: 116). There is 'insight and sudden comprehension' – a mental dynamism it could be said – where sensori-motor schemas are combined and brought forward to be applied to new situations (Piaget and Inhelder 1969: 12).

Gardner (1984; 129) stated that 'for many months, the child's knowledge of objects and of the simple causal connections that exist among them is tied completely to his [sic] moment-to-moment experience'. This confirmed Piaget's (1950: 121) characterisation of sensori-motor intelligence as a co-ordination of 'successive perceptions and overt movements ... like a slow-motion film, in which all the pictures are seen in succession but without fusion'. However, Gardner went on to assert that 'the study of thought should (indeed must)

begin in the nursery'. This was an acknowledgement of Piaget's (1959: 283) claim that 'sensory-motor activity constitutes the foundation of symbolism and representation ... that thought proceeds from actions', which underpins Meltzoff and Moore's (1998: 224) view of the powerful young child in that:

The young infant is not a purely sensori-motor being but a representational one. Although sensori-motor development is essential to infants, preverbal cognition neither reduces to, nor is wholly dependent upon, such development. Pre-reaching and pre-locomotor infants are engaged in detecting regularities, forming expectations, and even making predictions about future states of affairs – all of which are possible because representation allows them to bring past experience to bear on the present.

Piaget and Inhelder (1969: 10) acknowledged that the precise moment when 'acts of practical intelligence' appeared was difficult to specify, but it was the progression from these early reflexes, through the acquisition of habits, towards this which was significant. The complexity of young children's thinking and language development, which was identified through a series of sub-stages, a progression towards an intelligence before language, which he characterised as 'essentially practical ... solving numerous problems of action' (1969: 4), was recognised by Bruner (1966: 16) who confirmed the importance of early action in providing the 'necessary and sufficient condition for progress' towards behaviour which was no longer shackled by action alone.

Grace and Brandt (2006: 249) revealed that certain characteristics were adjudged as most important to kindergarten success. These included dispositions and attitudes to learning, communication and the social and emotional domain where there is a sense of confidence and self-worth. It was interesting to note that areas including cognitive development and general knowledge were viewed as less critical to success. It would suggest therefore that the opportunity for children to immerse themselves in relevant, motivating and provoking environments which allow for freedom and exploration, help inculcate important holistic domains of development.

Corbetta and Snapp-Childs (2009) affirmed the central role of object exploration in the development of perception, action and memory, recognising that by sight, touch and manipulation, infants secure knowledge of physical characteristics which they can later recall and utilise. They specified that 'the successful integration of haptic information with visual information begins only around 8–9 months of age' which correlated with Willattes (1984: 133), who reported that from his experiments, '9-month old infants are able to use a support as a means for attaining a goal ... and are able to co-ordinate two separate actions into an effective sequence'.

Although Willattes (1984) suggested that infants from 9 months were able to demonstrate a strategic expression of purposeful thinking, which Piaget (1950: 111) heralded as 'the transition between simple habit and intelligence', where the end is sought, as it were, by using appropriate means, Corbetta and Snapp-Childs' (2009: 55) acknowledgement that infants 'need many trials

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to alter response and seem to need even more practice before being able to maintain and reproduce the new response steadily' confirmed the place of early action and experience. Goodley and Runswick-Cole (2010: 506) noted that the intrinsically motivated activities which children involve themselves in can only be described as such if done 'for their own sake', which validates the need for young children to have plenty of time to absorb themselves in their own important discoveries.

Green's (1988: 133) observation that 'typically, individuals seek to explore a novel problem in a rather *ad hoc* manner before embarking on a more planned approach' echoed Bruner's (1966: 16) reasoning in his discussion of the origins of enactive representation, which recognised the importance of early action as necessary for the child to 'objectify' and 'correlate' the environment. However, Piaget (1950) suggested that this did not constitute acts of intelligence themselves, as they are composed of successive movements which lead to an end.

Athey (2007: 49) described the development of symbolic representation from these early motor and perceptual behaviours and identified advances in young children's thinking, with schemas identified as 'patterns of repeatable actions that lead to early categories and then to logical classifications'. She went on to specify schemas as 'commonalities and continuities ... in spontaneous thought and behaviour' (2007: 113). This resonated with Meade and Cubey's (2008: 3) 'patterns in children's actions' and Smidt's (2006: 24) 'patterns of actions', which Nutbrown (2006: 10) clarified as a 'pattern of behaviour which has a consistent thread running through it', and is similar to Flavell's (1963) behaviour with an underlying sameness. The successive, recurring notion of pattern here, underpinning children's talk, deeds, musings and makings – that is, Bartlett's (1932: 201) 'active, developing patterns', which Athey (2007: 48) clarified could apply to 'dynamic sequences of action as well as static configurations' – has undoubted professional and parental relevance.

Meade and Cubey's (2008: 3) clarification of schemas as 'forms of thought that relate to cognitive structures ... like pieces of ideas or concepts', which Smidt (2006: 24) explained 'can be repeated and that lead to the ability to categorise and then to be logically classified', allowed for an alternative interpretation of children's actions, discussions and representations. As Gardner (1984: 303) maintained, 'the child pursues those activities that for him [sic] have come to be connected with pleasurable experiences as well as those activities that lead to outcomes that he desires'. This was not a pursuit to satisfy private cravings, a display of selfish egoism, but a meaningful and significant cognitive compulsion for the young child as they came to know.

If there is a genuine professional yearning, therefore, to provide learning experiences of significance, then to embrace a knowledge of schema which permits a sight of perhaps hitherto obscured views of thought, a way into children's minds, must be a fundamental consideration, driven by a respectful

desire to respond to what is of consequence to them. Sandberg and Heden (2011: 328) acknowledged that adults in learning environments need to reflect upon ‘the messages that are conveyed through the encouragement or disapproval of play’. Seen in a wider context, their suggestion infers a deeper, more significant impact on practice in general and intervention in learning in particular. The underlying ethos here is one of acceptance, with the implication that the child’s concerns should not need to be implored, but anticipated and received with confidence and esteem.

In this book schemas are defined as persistent patterns which underlie children’s spontaneous behaviour. There is a personal and social dimension in that the private aspects of individual minds are made public through actions, language and representations. These tangible insights into children’s minds are shaped by encounters with the things around them and the people they meet. To be active in these encounters, in a way which attunes to these seemingly unremitting themes depicting thought, is an opportunity to engage with children in a deliberate way, which understands the challenge of a conceptual meeting of minds.

Much research acknowledges the active nature of children’s learning. The importance of supporting young children to be both physically and mentally active in learning is key. Environments that stimulate and challenge, and have adults working in them who are able to respond to what is of consequence to the child, are vital if children are to flourish.

The Relational Nature of Learning

Carr, Jones and Lee (2005: 137) highlighted the key element of environment in their recognition of the strength of an educational agenda which focuses on ‘reciprocal and responsive relationships in that it encourages education to be explained in terms of the interactive process of teaching and learning rather than in terms of individual psychology’. Rogoff’s (1990: 27) insistence that ‘there are neither context-free situations nor de-contextualised skills’ understood the shared nature, the relational nature of the cognitive encounter, a meeting of mind, people and place.

Siraj-Blatchford, Sylva, Muttock, Gilden and Bell’s (2002: 10) definition of pedagogy included the ‘instructional techniques and strategies which enable learning to take place’. However, they went on to assert a significantly more complex consideration which included in the definition pedagogy, ‘the interactive process between teacher and learner’. Elfer (2007: 169) drew a distinction between the kinds of relationships which appear in the home and professional setting. He described family interactions as ‘intimate and spontaneous’ and those in settings as ‘more professional and planned’. In a pedagogical context, if Siraj-Blatchford et al.’s (2002) characterisation of relationships is interactional, then Elfer’s (2007) depiction of family intimacy

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should be acknowledged in the professional setting too. If there is to be a genuine egalitarian, reciprocal interaction between child and adult, then the professional distance which Elfer inferred in his description of setting interactions may not be appropriate.

To secure relationships in the learning environment which enable children to feel emboldened, important and free, is to create relationships of trust and respect which are slowly forged and founded upon a real sense of wanting the best for the child. There is a responsiveness here which avoids Elfer's notion of 'planned' in favour of a more reactive kind of engagement. To be able to react to, anticipate, understand and nurture the nuances of children's thinking encountered during playful meetings, needs acknowledgeable adults who can forge intimate professional relationships which continue those which may exist at home.

Elfer (2007) understood the professional adult's role in an early years setting as that which includes specialist competencies as well as more heartfelt qualities. He knew the complexity of the role that Nutbrown and Page (2008: 177) capture in their description of the kind of adults that babies and young children need, including:

Adults who know about children's needs, know about children's minds, understand different theories of learning, understand emotional literacy as well as literacy and numeracy, and are highly developed in their skills and attitudes which support the healthy and holistic development of children's minds, bodies and souls.

Underpinning professional capabilities is a philosophy which describes an adult who seeks to connect with the essence of a child – their character, their spirit, what makes them the person they actually are. Within learning environments, babies and young children deserve to be with adults who want to spend time with them, responding, supporting and challenging. If professional adults afford babies and young children's minds, bodies and souls the respect they deserve through genuine ethical accompaniments, a true 'person to person' encounter becomes a real possibility.

Within this context, the qualities of professional adults can be understood as both objective and subjective. Arnold (2010: 11) inferred this dual characteristic in her observations of children's schemas in proposing that understanding schemas and understanding emotional events in children's lives were closely linked. She accepted that schemas were 'not necessarily prompted by emotions', but drew links between 'schemas explored and emotions experienced' (2010: 21). There is little evidence to suggest that understanding schemas supports emotional development, but what is clear is that close relationships between professional adults and young children in the learning environment is vital if bodies, minds, hearts and souls are to be cared for.

Lahman's (2008: 282) portrayal of 'joyous, inter-subjective, meaningful relationships' achieved 'with thoughtful, consideration' demonstrates the complexity

of developing relationships in settings between adults and children. Broadhead (2004: 131) took this further in her discussion of observation in early years settings, urging practitioners to embrace a more challenging approach to practice, in moving from simply watching children towards reflection, where 'thinking and talking about understanding their learning' is a part of practice. To understand children comes from time spent with children where there is a steady, smouldering closeness which reveals insights easily missed with a more cursory approach.

Kjorholt, Moss and Clark (2005: 176) highlighted the imperative of watching children and being part of their daily lives in that it allows for 'a deeper insight into the "unspoken words" and the complexities of different meaning-making processes'. A literal understanding of words communicating meaning here, it could be said, is rejected in favour of understanding 'unspoken' as a deeper, conceptual articulation of thinking expressed by the child through their preferred holistic medium. For as Athey (2007: 55) confirmed, 'mental representation cannot be studied directly, but it can be construed', thus emphasising the imperative of attentive observation.

Rinaldi (2005: 18) urged adults in the learning environment to question how children can be enabled 'to find the meaning of what they do, what they encounter, what they experience'. This suggested that there is a need to understand children's explicit expressions of thinking and to have an awareness of their implicit representations. Rinaldi inferred an essential reflexive element in 'questioning' which proposed the place of a personal and collective consideration of process in learning. This level of professional scrutiny, a necessary dissection of practice, enables encounters within the learning environment to be of consequence.

In the light of this, Rogoff's (1990: 204) characterisation of the adult/child relationship as one of 'intimate partners' painted a picture of cherished warmth and closeness from which there can be 'a complex sharing of ideas with people who do not require much background to be explained in order to proceed with a new thought'. Intimacy here is to be understood as comfortable familiarity, a compassionate, knowing and perceptive insight, and a considerate acceptance, where meaning is demonstrated or quietly understood.

Kinney (2005: 114) asserted that 'children not only [have] the right to be heard but [have] important things to say and tell us ... that we would learn more about them as a result of engagement'. This supports an embodied perspective of schema modified within and as a result of the relational and social.

Research acknowledges the importance of the shared and relational nature of cognitive encounters. The implication for practice is for adults to acknowledge a more egalitarian relationship with children in their learning environment, and this may require a significant shift in perception to allow for a more reciprocal, responsive accompaniment in learning.

Quality Practice in Early Years Settings

The quality discourse is not a recent phenomenon but one with deep historical roots. This can be also seen within key influential policy documents of the recent past. Two decades ago, *Starting with Quality*, the Rumbold Report (DES 1990: 31) recommended that attempts be made to overcome 'barriers to the achievement of quality' in addressing issues which impact on the context of young children's learning experiences, including staffing, policy, parental involvement and curriculum. The Report challenged that 'all providers ... know what constitutes quality provision' and, furthermore, are accountable for the standards they achieve. This theme continued in Ball's *Start Right: The Importance of Early Learning* (1994), which catalogued what constitutes high-quality provision. Most recently, the *Foundations for Quality* report (Nutbrown 2012: 2) stated that:

Learning begins from birth, and high quality early education and care has the potential to make an important and positive impact on the learning, development and wellbeing of babies and young children, in their daily lives and the longer term.

All adults working with young children need an understanding of how children learn and develop. This includes the development of relevant and challenging learning environments, careful and respectful observation, timely intervention and a sensitivity not to interrupt. Knowledgeable practitioners and the place of collaborative partnerships in the learning environment are essential.

Athey (1990: 57) warned that 'effective means of evaluating the day-to-day educational progress of young children needs to be found. Until such formative evaluations are refined, starting points will continue to be ascertained by summative evaluation.' There is a challenge here for practitioners to have a much more sophisticated, nuanced understanding of how they may come to know the children in their care. Patiently cultivating sensitive, accepting, gentle, reciprocal relationships within the learning environment, with respectful observation, accompaniment, genuine receptiveness and a willingness to respond, demonstrates the altogether more complex comprehension specified by Athey (2007). As Athey asserted:

Descriptions of quality must precede attempts to measure it. Measurement without description and conceptual understanding can capture only the organizational, surface or trivial features of situations. The co-ordination of trivial examples from children set within an illuminative theory provides useful explanations. It is the power to explain that makes pedagogy so important. (2007: 27)

Government documents, which related to our youngest children, testified to the ubiquitous notion of quality in terms of learning, development and care.

The *Birth to Three Matters Framework* (DfES 2003: 3) asserted that 'high-quality childcare is a crucial step towards ensuring that all children arrive at school ready to learn' and that when they do, 'high-quality care and education by practitioners' is a prerequisite for the 'effective learning and development' of young children (QCA/DfEE 2000: 12).

The *Every Child Matters Change for Children* programme (DfES 2004b) extended the implication of quality in attempting to address every facet of children's lives in its drive for improvement. The five outcomes highlighted were: being healthy, staying safe, enjoying and achieving, making a positive contribution and achieving economic well-being. These outcomes identified a co-ordinated basis from which the nature of quality and its necessary encompassing composition could be more clearly acknowledged.

The 10-year strategy for childcare (HM Treasury 2004: 1) appeared holistic from the outset, stating that it was the government's vision 'to ensure that every child gets the best start in life', including increased choice for parents in terms of childcare. Crucially, the government recognised that quality early years provision and a highly skilled early years workforce were key (DfES 2005). It is interesting to note the recurrent themes which appear when policy seeks to characterise what quality in the early years ought to look like, and the complexity of attempts to define 'quality' should be recognised.

The Department for Education and Skills' *Statutory Framework for the Early Years Foundation Stage* (2007b: 8) continued to challenge for quality in early years settings in maintaining that:

Every child deserves the best possible start in life and support to fulfil their potential. A child's experience in the early years has a major impact on their future life chances. A secure, safe and happy childhood is important in its own right, and it provides the foundation for children to make the most of their abilities and talents as they grow up. (DfES 2007b:7)

The document went on to specify areas where provision must be of the highest quality, including: the physical environment, response to individual need, content characterised by a relevant and stimulating play-based approach to practice, appropriately qualified staff with opportunities for continuing professional development, occasions for sustained shared thinking and effective monitoring of information, including children's progress.

The Department for Education and Skills (DfES) in their evaluation of the *Neighbourhood Nurseries Initiative* (2007a: 66), highlighted key important influences on quality provision. It referred to the *Infant/Toddler Environmental Rating Scale* (Harms, Cryer and Clifford 2003) to measure different dimensions of quality. These categories included aspects of the physical environment, including space, furnishings and resources, the activities and opportunities to which the children have access, personal care routines, the extent of collaboration with parents and training opportunities for staff. In addition, the quality of the social environment was taken into account. The extent and nature of

interaction, of listening and talking with children, and how children's learning was supported, were the key dimensions of quality identified in the report.

The DCSF's document, *The Children's Plan: Building Brighter Futures* (2007: 53), noted similar themes which have an impact on young children in the early years. It acknowledged the key role of parents in supporting their children's learning as 'an essential foundation for achievement'. This was affirmed in *Play Strategy* (DCSF 2008a: 5), a commitment from the Children's Plan which outlined the five principles underpinning the Children's Plan. The acceptance that parents, not government, 'bring up' children, and that there needs to be more support for parents and families to do this, was clearly articulated. *Next Steps for Early Learning and Childcare* (DCSF 2009b: 39) also conceded that 'in the early years the quality of early learning and childcare is second only to parenting in determining children's outcomes – both short and long – term'.

Nutbrown (2011: 119) acknowledged the intricate nature of quality and the difficulty in finding one single, acceptable, representative meaning. She did, however, assert that if an early childhood setting were to be deemed of good quality, 'then the extent to which the provision is meaningful and appropriate to those who use it is key'.

The concept of quality, therefore, must be understood as having complex divergent and convergent implications. Divergence here is not a conflicting dilemma but an acknowledgment of the scope which the notion of quality attempts to define. These multifarious strands intertwine and shape the provision. This tapestry must have the young child and how they are supported in their formative years, in practice and in the home environment, woven into the very centre of the pattern.

The understanding of the place of the child was audible in government documents at the time, which accentuated the imperative of attuned responsiveness. The DCSF *Next Steps for Learning* (2009a: 39) outlined the need for learning experiences 'adapted to each individual' and resonated with the earlier *Children's Plan* (DCSF 2007: 53), which championed 'tailored teaching', a concern for the individual reflected in approaches to learning with young children. Those founded on 'excellent play-based learning' (DCSF 2009a: 39) which Play England clarified as play experiences 'which follow a child's own ideas and interests, in their own way and for their own reasons' (DCSF 2008b: 11) were acknowledged as being of key significance for young children and were embedded into the current curriculum documentation used with our youngest children (DfE 2012).

Samuelsson, Sheridan and Williams (2006), in their comparative consideration of five pre-school curricula, recognised the difficulty in characterising quality as a concept and acknowledged the ambiguity of understanding, defining and meaning in the context of early childhood education and care. They speculated about the existence of a 'common core of values and objectives' and pondered the question of stakeholders, in questioning the meaning of quality, asserting that it depends purely 'on the situation and the context

in which it is used and/or on the perspective of the user' (Samuelsson et al., 2006: 14).

Bennett's (2003) emphasis on the definition, realisation and evaluation of quality as 'participatory and democratic [engaging of] staff, parents and children' resonated with the stakeholder perspective of Samuelsson, Sheridan and Williams' (2006) and Bush and Phillips' (1996), yet definitive indicators of quality remain unclear. Sheridan and Schuster (2001: 109) confirmed the uncertainty of characterisation, admitting that how quality is 'concretised' and evaluated is indistinct.

Dahlberg, Moss and Pence (2007: 5) noted an historical emphasis in early childhood settings to explore quality in terms of relationship between various 'resource and organisational features', 'an essentially technical issue of expert knowledge and measurement'. However Penn (1994: 25) asserted that 'it is impossible to uphold a values-free and context-less definition of quality in early years services'. The intricate pluralism of the concept is elevated if we include the more abstract notion of values in our effort to define quality. 'Why' practitioners work with, care for and support children in certain ways influences 'how' this is achieved, which reflects Athey's (2007) challenge that practitioners should be able to eloquently articulate their professional role.

Rosen (2010) accepted the multifarious nature of quality in early childhood in affirming the place of collaboration. She understood the complex nature of quality in noting not only overt characteristics, 'the practices, and environment of the preschool' with the need for engagement in critical dialogue about ideas of 'curriculum and education', but the more significant, covert, philosophical aspect of 'purpose'. For significant adults to come together with common intent, to determine the kind of life a young child has, is an understanding which extends beyond the practical. Rosen's 'purpose' may be derived from the tenet of measurable achievement or from the more challenging perspective of accepting a personal responsibility for shaping childhoods.

The kinds of relationship forged in early childhood, therefore, is fundamental for children's well-being. Sellers, Russo, Baker and Dennison (2005) noted the significant role which professional adults have in the lives of young children and recommended the need for communication with parents. This is echoed in Nutbrown and Page's (2008: 37) later clarification that 'issues of practice in relation to children's cognition and learning development' can be considered if assured relationships between children and practitioners exist. However, the importance of secure relationships *between* the adults in a child's life, and not just between the adult and the child, is appropriate, if their influence not only on their learning and development but on their life is understood. If the tension felt by practitioners in Grace and Brandt's (2006: 250) work, in terms of their reluctance to embrace more collaborative relationships with parents, is to be overcome, then Woodhead's (1998) inference of a shared ethos which determines to foreground the child's needs and interests must be accepted. To know children more fully demands that all

those who are involved in their care and education should unite to deepen this awareness.

The complexity of what constitutes quality in the early years is acknowledged in research, in practice and in key, influential policy documents of the recent past. The ubiquitous nature of the themes associated with 'quality' practice is significant in that their recurring presence recognises important features which cannot be disregarded. In this book, the place of stimulating and challenging environments, adults who cherish children and encourage their learning, and who seek to establish collaborative relationships with parents, are vital. These key elements of practice are deeply rooted in research, practice and policy of early childhood.

Listening, Watching and Responding to Children

Conroy and Harcourt (2008: 159) confirmed the responsibility adults had in providing 'respectful and legitimate contexts' in which children's concerns can be expressed. In the context of learning environments, there is a recognition that for genuinely co-operative relationships to be realised, opportunities for deep-level involvement, enabling collaborative understandings to evolve, are essential.

Rinaldi (2006: 84), knowing the competency of children and their desire to share understandings, noted that they are proficient in attaching significance to particular happenings. This supports the place of adults who celebrate the capabilities of young children and who are able to co-operate cognitively in relationships which intensify these capacities, in mutually beneficial partnerships. Thought-provoking, nurturing and understanding relationships require attuned, synchronised, professional adults. In the context of this book, the dialogues between children and adults were antiphonal,¹ reciprocated interactions which listened to and responded to what was seen and heard.

In the light of this, and if Bronfenbrenner's (1970: 133) implication that children are 'the most "contagious" models' is accepted, then Jenkins, Franco, Dolins and Sewell's (1995) understanding of toddlers' expectations about relationships should worry adults working with young children. Haudrup (2004) suggests that the adult role in conversations with children should be reconsidered, with a repositioning of roles towards a more equitable understanding in the relationships which form: of parity, not oppression.

The Researching Effective Pedagogy in the Early Years Project (REPEY) (Siraj-Blatchford, Sylva, Muttock, Gilden and Bell 2002) revealed that positive

¹A verse or song to be chanted or sung in response; a psalm, hymn or prayer sung in alternate parts. In the context of this book, we use this word to describe the exchange between adult and child in the learning environment when accompanying the child in play.

outcomes for children in terms of learning were directly linked to these adult-child interactions, which involved sustained, shared thinking. It is a process of dynamic cognitive encounters between the child and the adult, where learning is extended through co-construction. It is a partnership involving a collaboration of ideas, where there is an opportunity for 'teasing out' and unravelling, a chance to try things out, to make mistakes and wonder why, to try a new approach, something different, to talk things through while undertaking a learning journey together.

Nutbrown (2011: 34) confirmed that 'watching children and listening to children are essential to understanding their learning'. Sylva and Taylor (2006) verified this in their analysis of the importance of positive relationships between children and adults. They stated that this led to cognitive and social progress. This was also recognised in Sheridan and Schuster's (2001: 120) evaluation of pedagogical quality in early childhood education, where 'splendid interactions and sustained communication with children' were characteristics of quality.

Davis (2011) distinguished a particular kind of interaction in describing the practice of open listening:

The philosophy and practice of open listening is not just about being nice or tolerant, and nor is it the kind of listening that looks for the repetition and affirmation of the already known ... it means opening up the ongoing possibility of coming to see life, and one's relation to it, in new and surprising ways. Open listening might begin with what is known, but it is open to the understandings one has of self and other, and the relations between them, creatively evolving into something new. Open listening opens up the possibility of new ways of knowing and new ways of being, both for those who listen and those who are listened to. (Davis 2011: 120)

The implicit ethos underpinning Davis's characterisation of 'open listening' is a dedication and devotion that speaks of personal openness. Adults are challenged to reposition themselves in their relationships with children so that an unrestricted sense of freedom of expression can evolve. Samuelsson, Sheridan and Williams (2006: 18) echoed this obligation in their assertion that 'to understand each child and his or her experience is no longer a question of just having a knowledge of child development', which is an altogether more searching obligation.

This type of convergence, which has a positive impact on young children's outcomes, in settings depicted as excellent where sustained shared thinking is encouraged, emerged as a key finding in the Effective Provision of Pre-School Education (EPPE) Project (1997–2003) (Siraj-Blatchford et al. 2003). Stephenson (2009: 139) also accepted that spending sustained periods of time with children 'might be the route to understanding a little more of the complex reality of their lives'. She recognised that if children's agency – their intention and purpose – is to be distinguished, then the unpredictable nature of the learning arena where children and adults co-exist must be acknowledged.

Sustained, shared understanding (Siraj-Blatchford et al. 2003) may therefore evolve in relationships where adults take time to notice what is important to children and are responsive to this. As a result, children come to know that what is of consequence to them is where *company in learning* begins. For the adult, this is much more than a meeting of minds; it is a witness of a professional ethical philosophy.

In this book, we highlight the importance of open, accepting and flexible pedagogical approaches when working with children, where adults reposition themselves in their relationships with children to one of learning partner, displaying a more closely shared and reciprocal quality. Though this may well be professionally challenging, it opens up the prospect of a more complementary accompaniment – a better learning ‘conversation’ and a deeper learning experience.

The Child as Learner

To characterise learning as a process reveals a certain standpoint which influences how the child is viewed. In a review of early learning approaches and their impact on later development, Sylva (1994) argued that success in early education did not hinge on the transference of facts or skills from adult to child with the child viewed as a receptacle for transmitted appropriate experiences. She affirmed the significance of children as active learners and stressed the importance of process in the learning experiences of young children (and not exclusively the content to be learnt), stating that the ‘learning-orientation rather than performance-orientation’ was crucial (Sylva 1994: 10). A focus on content obscures the view of the child as an active learner, which Abbott (1999: 75) supported in confirming that learning is ‘a deeply reflective activity’ where new ideas are ‘internalised and used to refine, or to change or to upgrade, earlier more naïve understandings’.

Hohmann and Weikart (2002) confirmed the importance of the child being active in the learning environment, where creativity and purpose, resourcefulness and independence, are nurtured. Wood and Attfield (1996: 80) suggested that a learning environment which included ‘learning initiated by the child’ rather than that which is always predetermined by the adult must be embraced. Forman and Fosnot (1982: 190) upheld the view that young children deserve rich learning environments which challenge thinking and encourage active exploration and discovery but drew a distinction between action and activity, stating that ‘one can be mentally active yet physically passive’. This aligns with Nutbrown’s (1999: 112) assertion that ‘play rightly has a prominent place in young children’s learning and development ... [in fact, it] is at the centre stage of learning’. Forman and Fosnot (1982) were merely cautioning practitioners in their clarification that more meaningful learning takes place in response to a child’s ‘own self-generated and self-regulated questions’. It is the significantly

more crucial notion of activity, the mental activity underpinning action, where children themselves reflect, question and experiment, which impacts on learning, not simply action in a physical sense.

The observations taken in the Froebel Early Education Project (Athey 2007) identified patterns of behaviour in young children aged between two and five years. The project documented developmental sequences of behaviour from acquiring early motor skills through to the thought level, as revealed in action and figurative representations. The project gave an insight into specific aspects of thinking, learning and development, and suggested how schemas may be nourished. Athey (2007: 209) affirmed that one of the most important outcomes of the project was the collaboration of parents with professionals as they all 'watched and listened with ever-increasing interest to what the children were saying and doing'. As a result, the responses made by parents and practitioners to the children were deeply significant.

Nutbrown's (2011) study also revealed the powerful nature of children's minds, in particular, the exploration of 'match' between *form* and *content* and the impact of this on the kinds of interaction which can evolve. The importance of nurturing children's thinking in cognitive encounters resonated in the work of Whalley (2001), Meade and Cubey (2008) and Arnold (2010), who identified how an informed understanding of schema theory can have a rejuvenating effect on curriculum design and adult engagement in the learning process, both in the setting and home environment.

The opportunity to develop an approach to learning and development which evolves in response to identified schemas should not be missed. A richly resourced physical environment with adults who work closely with children in a supportive, encouraging and stimulating manner is essential. However, the extent to which adults may respond to children's thinking depends on their own professional knowledge, skills and understanding, and adults need to try to understand what children *know*, what children are *focusing their attention on*, so that the intricate nature of distinct behaviour patterns which support their learning and development may be appreciated. Children's thinking, which is represented by and evident in their everyday behaviours, is easily obscured by lack of understanding.

An informed understanding of schemas gives practitioners insight into the richness of children's thinking and helps adults to be thought-provoking in a relevant way as they unite with children on their learning journeys. Piaget's (1959: 272) description of young children's thinking, where the notion of egocentric learning, rather than being a negative concept, can be viewed as an expression of the way young children are intensely interested in their own 'questions', and how they continuously strive to share their thoughts with those around them, have 'no verbal continence' (1959: 39) and seek many ways to make sense of the world around them through communication. It is a complexity which, if understood, enables a more attuned and insightful understanding of young children's thinking. This was seen in

Piaget's (1959) unravelling of the complexities of children's 'why' questions, which seek explanation, purpose or motive and justification, as young children search for sense and meaning. In so doing, practitioners do what Nutbrown (2006) calls 'rich justice' to children's capacity to think through what they encounter. Fostering the type of relationship the child has with the adult and the kinds of interchanges which characterise this are vital in the support and nurturing of thinking and learning.

Conclusion

This chapter has highlighted the importance of the early years for children's learning and development and the significance of realising children's astonishing potential during this key phase of life. Definitions of schemas and the importance of adults coming to understand children's thinking, through their repeated patterns of behaviour, provide an underpinning for the rest of this book, which seeks to show the children it features as competent and capable, recognises the importance of practitioners who understand children's capacities and are able to attune their interventions to the thinking concerns of each child they teach.

Reflection

Professional learning encounters between young children and their practitioners can be rich, deep and meaningful. The research indicates the importance of high-quality learning encounters in fostering children's developing minds. Readers may wish to reflect on the skills they have in understanding young children's learning modes. The following questions may be useful starting points for individual reflection or for conversations with colleagues:

- What do you already know about young children's schemas?
- What kinds of learning conversations do you have with the youngest children?
- How do you 'come to know' them and their learning?

Further Reading

There are two books which underpin much of this book and we recommend that readers add them to their 'must read' list.

Athey, C. (2007) *Extending Thought in Young Children* (2nd edition). London: Paul Chapman Publishing.

Nutbrown, C. (2011) *Threads of Thinking: Schemas and Young Children Learning and the Role of Education* (4th edition). London: Sage.